7590-01

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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

EXEMPTION

I.

The Power Authority of the State of New York (the licensee) is the holder of Facility Operating License No. DPR-59 which authorizes the licensee to operate the James A. FitzPatrick Nuclear Power Plant (the facility) at power levels not in excess of 2436 megawatts thermal. The facility is a boiling water reactor (BWR) located at the licensee's site in Oswego County, New York. The license provides, among other things, that it is subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

II.

Section 50.48 of 10 CFR Part 50 requires that licensed operating reactors be subject to the requirements of Appendix R of 10 CFR Part 50. Appendix R contains the general and certain specific requirements for fire protection programs at licensed nuclear facilities. On February 17, 1981, the fire protection rule for nuclear power plants, 10 CFR 50.48 and Appendix R, became effective. This rule required all licensees of plants

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licensed prior to January 1, 1979, to submit by March 19, 1981: (1) plans and schedules for meeting the applicable requirements of Appendix R, (2) a design descri ,on of any modifications proposed to provide alternative safe shutdown capability pursuant to Paragraph III.G.3 of Appendix R, and (3) exemption requests for which the tolling provision of Section 50.48(c)(6) was to be invoked. On March 19, 1981, the licensee requested and was subsequently granted a schedular exemption for submitting the required information until February 1982. The licensee responded to these requirements by letter dated February 26, 1982, and supplemented its response by information contained in letters dated July 13 and November 11, 1982; March 1, April 5 and May 19, 1983. In these submittals, the licensee requested certain exemptions from the requirements of Section III.G of Appendix R to 10 CFR Part 50.

On February 1, 1984 we granted these exemptions to the licensee. Subsequently, in a letter dated July 16, 1984 which clarified the licensee's May 19, 1983 letter, the licensee requested that the need for cable tray suppression systems at the boundary of zones RB-1A and RB-1B be eliminated and requested approval to exercise the option of either installing a water spray system or installing a 1-hour fire barrier around four open stairways to prevent vertical fire propagation into an adjoining zone. The latter option was approved as part of the February 1 Exemption. The Exemption supersedes the one dated February 1, 1984 in that it approves the above-mentioned requests. All other aspects of the February 1, 1984 Exemption remain unchanged.

Section III.G of Appendix R requires that one train of cables and equipment necessary to achieve and maintain safe shutdown be maintained free of fire damage by one of the following means:

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; or

c. Enclosure of cables 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.

If these conditions are not met; Section III.G.3 requires an alternative shutdown capability independent of the fire area of concern. It also requires that a fixed suppression system be installed in the fire area of concern if it contains a large concentration of cables or other combustibles. These alternative requirements are not deemed to be equivalent; however, they provide equivalent protection for those configurations in which they are accepted.

Because it is not possible to predict the specific conditions under which fires may occur and propagate, the design basis protective features are specified in the rule rather than the design basis fire. Plant specific features may require protection different than the measures specified in Section III.G. In such a case, the licensee must demonstrate, by means of a detailed fire hazards analysis, that existing protection or existing protection in conjunction with proposed modifications will provide a level of safety equivalent to the technical requirements of Section III.G of Appendix R.

Our general criteria for accepting an alternative fire protection configuration are the following:

- The alternative assures that one train of equipment necessary to achieve hot shutdown from either the control room or emergency control stations is free from damage.
- The alternative assures that fire damage to at least one train of equipment necessary to achieve cold shutdown is limited such that it can be repaired within a reasonable time (minor repairs with components stored on-site).
- Modifications required to meet Section III.G would not enhance fire protection safety above that provided by either existing or proposed alternatives.
- Modifications required to meet Section III.G would be detrimental to overall facility safety.

The exemption requests we found to be acceptable are as follows:

1. The licensee requested an exemption from the provisions of Section III.G.2 of Appendix R for zones RB-1E and RB-1W, located within east and west sections of the reactor building crescent area, to the extent that at least 20 feet of separation without intervening combustible material, is required between redundant shutdown divisions. Within these areas is a location referred to as the "HPCI Area," where Division A and Division B cabling are separated by a distance of 26 feet. However, the intervening space contains combustible material in the form of cable insulation in overhead trays and lubricating oil in the HPCI system. The licensee's justification for the exemption is based on the following:

   A. The Crescent Area is equipped with a complete fire detection system.

   B. The HPCI area near the boundary of RB-1E and RB-1W is protected by a manual activated foam fire suppression system and an automatically activated water spray system.

   C. A water spray system will be installed between redundant systems at the RB-1E and RB-1W zone boundary.

   D. The Crescent Area contains minimal quantities of combustible material and is equipped with portable fire extinguishers and manual hose stations.

   E. The design of the HPCI system is such as to reduce the likelihood of a lubricating oil fire from developing.

   F. A fire model was utilized to assess the impact of a fire in the HPCI area. The results, according to the licensee, demonstrate

that safe shutdown capability could be maintained after such a fire.

The requirements of Section III.G.2.b regarding separation and intervening combustible materials, are intended to achieve a degree of passive fire protection for redundant shutdown systems. The passive protection, coupled with the III.G.2.b requirements for an area-wide fire detection and fire suppression system, provide reasonable assurance that at least one train of shutdown systems will be free of fire damage. The technical requirements of Section III.G are not met because intervening combustible materials are located between redundant safety divisions.

The HPCI system has certain design features such as shielding of hot surfaces and trouble alarms which reduce the likelihood of a lubricating oil fire. If a fire should occur, the HPCI area is protected by a foam fire suppression system and a water spray system. Protection from fire involving the combustible cable insulation will be provided by the proposed water spray system.

The licensee used a fire model to verify that an acceptable level of passive fire protection was achieved by the present area configuration, taking no credit for the above referenced fire suppression and detection systems. The separation between redundant cables achieves a level of protection sufficient to provide reasonable assurance that no significant damage would be sustained by redundant safety systems pending fire suppression by the automatic and manual fire suppression systems or by the fire brigade.

Based on our review of the licensee's submittals, we conclude that additional modifications to meet the requirements of Section III.G.2 would not enhance fire safety above that provided by the proposed alternative. Therefore, the licensee's request for exemption for zones RB-1E and RB-1W (East and West Sections of the Reactor Building Crescent Area) should be granted.

2. The licensee requested an exemption from the provisions of Section III.G.2.a of Appendix R for zones RB-1A and RB-1E located within the southeast quadrant of the reactor building at elevation 272 feet, and the east section of the crescent area, to the extent that a 3-hour fire rated barrier between redundant shutdown divisions is required. Safe shutdown systems located in these zones consist primarily of Divison B cabling and components, including those associated with RHR, Core Spray, HPCI, ESW, and manual ADS. Division A components in these areas include power and control cables for a RCIC steam supply valve (among others) and a motor control center.

Existing fire protection for these locations consists of an area-wide smoke detection system; manual hose stations and portable fire extinguishers; fixed fire suppression system for the HPCI enclosure. In lieu of a 3-hour fire rated enclosure around the open stairway, the licensee has proposed to either install a fire barrier of a lesser fire resistance, designed to mitigate the propagation of products of combustion from elevation 227 (Area RB-1E) to elevation 272 (Area RB-1A) or to install a water spray system around the open stairway. The licensee committed to provide a barrier with fire resistance that

will be commensurate with the fire loading in the entire zone. The water spray system will be designed to discharge water in a pattern that will prevent vertical fire propagation into the adjoining zone. The zones are not in compliance with Appendix R because of the lack of a 3-hour fire rated barrier between redundant divisions at the open stairway between RB-1A and RB-1E.

Although Division A and Division B shutdown components are identified as being potentially damaged by a fire in the subject areas, the licensee has identified a redundant/alternate shutdown capability with systems located, in part, in adjoining fire zones. The viability of this safe shutdown capability is dependent upon the adequacy of the fire protection at zone boundaries, which is the subject of other exemption requests.

The concern with the open stairway between the subject areas is that a fire which originates within RB-1E will propagate to RB-1A via the unprotected stairway. The quantity of combustibles in RB-1E is nearly 10,000 lbs. of cable insulation and lube oil. This represents a fire loading of approximately 41,000 Btus/sq. ft., which corresponds to a fire severity on the ASTM E-119 time-temperature curve of about 30 minutes. It is the staff's judgement that a fire of this magnitude and duration would not occur because, to assure that it would, ignores the protection afforded by the fire detection and suppression systems previously identified and the damage mitigating actions of the plant fire brigade.

The above considerations provide adequate justification for 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. The installation of an automatic sprinkler system, which discharges water in a "curtain" fashion around the unprotected floor penetrations at the stairways will provide us with reasonable assurance that significant quantities of smoke and hot gases will not propagate vertically into adjoining zones.

Based on our review of the licensee's submittals, we conclude that either of the licensee's proposed alternatives will provide reasonable assurance that one safe shutdow. division will be free of fire damage and will achieve an acceptable level of fire protection equivalent to that provided by Section III.G.2. Therefore, the licensee's request for exemption for zones RB-1A and RB-1E (southeast quadrant of the reactor building at elevation 272 feet, and the east section of the crescent area) should be granted.

3. The licensee requested an exemption from the provisions of Section III.G.2.a of Appendix R for zones RB-1A and RB-1C located within the northeast quadrant of the reactor building at elevations 300 and 326 feet, to the extent that a 3-hour fire rated barrier between redundant shutdown divisions is required. Safe shutdown systems located in these zones consist primarily of Division B cabling and components, including those associated with RHR, Core Spray, ADS, RCIC, HPCI, and ESW. Division A components located in these areas consist of power and control cables for RCIC steam supply valve

13MOV-16, motor control 151, and injection valves for Division A core spray.

Existing fire protection for these locations consists of an area-wide fire detection system; manual hose stations; and portable fire extinguishers.

In lieu of a 3-hour fire rated enclosure around the stairway, the licensee has proposed to either install a fire barrier of a lesser fire resistance, designed to mitigate the propagation of fire from elevation 300 feet (RB-1C) to elevation 326 feet (RB-1A) or to install a water spray system around the open stairway. The licensee has committed to provide a barrier with fire resistance that will be commensurate with the fire loading in the entire zone. The water spray system will be designed to discharge water in a pattern that will prevent vertical fire propagation into the adjoining zone.

The zones are not in compliance with Appendix R because of the lack of a 3-hour fire rated barrier between redundant divisions at the connecting stairway between them.

Although Division A and Division B shutdown components are identified as being potentially damaged by a fire in these areas, the licensee has identified a redundant/alternate shutdown capability with systems located, in part, in adjoining fire zones. The viability of this safe shutdown capability is dependent upon the adequacy of the fire protection at zone boundaries, which is the subject of other exemption requests.

The concern with the open stairway between these areas is that a fire which originates within RB-1C will propagate to RB-1A via the unprotected stairway. The quantity of combustibles in elevation 300 feet (RB-1C) is nearly 17,000 lbs. of cable insulation. This represents a fire loading of approximately 15,000 Btus/sq. feet which corresponds to a fire severity on the ASTM E-119 time-temperature curve of about 12 minutes. To assume that a fire of this magnitude and duration would occur does not take into consideration the protection afforded by the fire protection systems that are available and the damage mitigating actions of the plant fire brigade.

The above considerations provide adequate justification for 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.

The installation of an automatic sprinkler system, which discharges water in a "curtain" fashion around the unprotected floor penetrations at the stairways will provide us with reasonable assurance that significant quantities of smoke and hot gases will not propagate vertically into adjoining zones.

Based on our review of the licensee's submittals, we conclude that either of the licensee's proposed alternatives will provide reasonable assurance that one safe shutdown division will be free of fire damage and will achieve an acceptable level of fire protection equivalent to that provided by Section III.G.2. Therefore, the licensee's request for exemption for zones RB-1A and RB-1C (northeast quadrants of the reactor building at elevations 300 and 326 feet) should be granted.

4. The licensee requested an exemption from the provisions of Section III.G.2, III.G.3 and III.L of Appendix R for zones RB-1E and RB-1W located within the east and west sections of the reactor building crescent area to the extent that these provisions require either (1) a 3-hour fire rated barrier between redundant shutdown divisions, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles or a 1-hour fire barrier, or (3) an alternate shutdown capability independent of the fire area.

   Each of these zones contains shutdown systems that are redundant with systems located in the adjacent zone.

   Specific safety-related equipment located within the two zones consists of redundant core spray pumps, redundant RHR pumps, RCIC pump, redundant unit space coolers and motor control centers and related cabling.

   Existing fire protection includes an area-wide ionization-type smoke detection system which alarms in the control room; an automatic water spray fire suppression system in the HPCI enclosure (with a capability for manual discharge); a manual foam fire suppression system in the HPCI enclosure; portable fire extinguishers and manual hose stations.

   The licensee has committed to install a water spray fire suppression system at the interface area of zones RB-1E and RB-1W. The system will be designed to discharge water in a "curtain" pattern completely across the common zone boundary to preclude the spread of fire damage beyond a single zone.

The zones are not in compliance with the above-mentioned provisions of Sections III.G and III.L of Appendix R. The staff was concerned that, because of the absence of a complete fire rated barrier between zones, redundant shutdown related systems, which are located in adjoining zones, would be vulnerable to fire damage.

However, the fire zones are provided with complete fire detection systems which achieve area-wide coverage. Upon activation, these systems alarm both visually and audibly in the control room. These systems provide reasonable assurance that a fire would be detected in its initial stage before significant damage occurred. The fire would then be extinguished by the fire brigade using manual fire fighting equipment.

If the fire propagated beyond the immediate area of fire origin, the masonry walls, floor and ceiling would confine the damage to the affected fire zone. At the common zone boundaries, where no such physical barriers exist, the proposed water spray system is designed to activate and discharge water in a "curtain" pattern so as to prevent fire spread into the horizontally or vertically adjoining zones. This type of system has been used successfully to protect conveyor openings in fire walls and escalator openings in buildings. Therefore, there is reasonable assurance that redundant shutdown systems in adjoining zones would remain free of damage until the fire was suppressed manually.

Based on our review of the licensee's submittals, we conclude that the existing fire protection with the proposed modifications provide a

level of fire protection equivalent to that provided by Section III.G. Therefore, the exemption requested by the licensee for zones RB-1E and RB-1W (east and west sections of reactor building crescent area) should be granted.

5. The licensee requested an exemption from the provisions of Sections III.G.2, III.G.3 and III.L of Appendix R for zones RB-1A and RB-1B located within the southeast and southwest quadrants of the reactor building on elevations 272 and 300 feet to the extent that these provisions require either (1) a 3-hour fire rated barrier between redundant shutdown divisions, (2) an area-wide automatic fire suppression system with separation by 20 feet of intervening combustibles or a 1-hour fire barrier, or (3) an alternate shutdown capability independent of the fire area.

   Each of these zones contains shutdown systems that are redundant with systems located in the adjacent zone.

   Specific safety-related equipment located within the two zones include Division A and Division B systems associated with RHR, core spray, and ADS; Division A, RCIC; and Division B, HPCI.

   Existing fire protection for zones consist of an area-wide fire detection system which alarms in the control room; portable fire extinguishers; and manual hose stations.

   The licensee has committed to install a water spray fire suppression system at the interface areas of zones RB-1A and RB-1B. The system will be designed to discharge water in a "curtain" pattern completely

across the common zone boundary to preclude the spread of fire damage beyond a single zone.

The zones are not in compliance with the above-mentioned provisions of Section III.G and III.L of Appendix R. The staff was concerned that, because of the absence of a complete fire rated barrier between zones, redundant shutdown-related systems, which are located in adjoining zones, would be vulnerable to fire damage. However, the fire zones are provided with complete fire detection systems which achieve area wide coverage. Upon activation, these systems alarm both visually and audibly in the control room. These systems provide reasonable assurance that a fire would be detected in its initial stage before significant damage occurred. The fire would then be extinguished by the fire brigade using manual fire fighting equipment.

If the fire propagated beyond the immediate area of fire origin, the masonry walls, floor and ceiling would confine the damage to the affected fire zone. At the common zone boundaries, where no such physical barriers exist, the proposed water spray system is designed to activate and discharge water in a "curtain" pattern so as to prevent fire spread into the horizontally or vertically adjoining zones. This type of system has been used successfully to protect conveyor openings in fire walls and escalator openings in buildings. Therefore, there is reasonable assurance that redundant shutdown systems in adjoining zones would remain free of damage until the fire was suppressed manually.

Based on our review of the licensee's submittals, we conclude that the existing fire protection with the proposed modifications provides a level of fire protection equivalent to that provided by Section III.G. Therefore, the exemption requested by the licensee for zones RB-1A and RB-1B (southeast and southwest quadrants of the reactor building on elevations 272 and 300 feet) should be granted.

6. The licensee requested an exemption from the provisions of Sections III.G.2, III.G.3 and III.L of Appendix R for zones RB-1B and RB-1C located within the northwest and southwest quadrants of the reactor building on elevation 300 feet to the extent that these provisions require either (1) a 3-hour fire rated barrier between redundant shutdown divisions, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles or a 1-hour fire barrier, or (3) an alternate shutdown capability independent of the fire area.

Each of these zones contains shutdown systems that are redundant with systems located in the adjacent zones.

Specific safety-related equipment located within the two zones include Division A and B systems associated with RHR, core spray, ADS and RCIC; Division B, HPCI; and motor control center 161 (B). Existing fire protection includes an area-wide fire detection system which alarms in the control room; portable fire extinguishers and manual hose stations.

The licensee has committed to install a water spray fire suppression system at the interface area of zones RB-1B and RB-1C. The system

will be designed to discharge water in a "curtain" pattern completely across the common zone boundary to preclude the spread of fire damage beyond a single zone.

The zones are not in compliance with the above-mentioned provisions of Section III.G and III.L of Appendix R. The staff was concerned that, because of the absence of a complete fire rated barrier between zones, would be vulnerable to fire damage.

However, the fire zones are provided with complete fire detection systems which achieve area-wide coverage. Upon activation, these systems alarm both visually and audibly in the control room. These systems provide reasonable assurance that a fire would be detected in its initial stage before significant damage occurred. The fire would then be extinguished by the fire brigade using manual fire fighting equipment.

If the fire propagated beyond the immediate area of fire origin, the masonry walls, floor and ceiling would confine the damage to the affected fire zone. At the common zone boundaries, where no such physical barriers exist, the proposed water spray system is designed to activate and discharge water in a "curtain" pattern so as to prevent fire spread into the horizontally or vertically adjoining zones. This type of system has been used successfully to protect conveyor openings in fire walls and escalator openings in buildings. Therefore, there is reasonable assurance that redundant shutdown systems in adjoining zones would remain free of damage until the fire was suppressed manually.

Based on our review of the licensee's submittals, we conclude that the existing fire protection with the proposed modifications provide a level of fire protection equivalent to that provided by Section III.G. Therefore, the exemption requested by the licensee for zones RB-1B and RB-1C (northwest and southwest quadrants of the reactor building on elevation 300 feet) should be granted.

7. The licensee requested an exemption from the provisions of Sections III.G.2, III.G.3 and III.L of Appendix R for zones RB-1B and RB-1A located within the southwest quadrant of the reactor building at elevations 300 and 326 feet to the extent that these provisions require either (1) a 3-hour fire rated barrier between redundant shutdown divisions, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles or a 1-hour fire barrier, or (3) an alternate shutdown capability independent of the fire area.

   Each of these zones contains shutdown systems that are redundant with systems located in the adjacent zone.

   Specific safety-related equipment located within the two zones include Division A and Division B systems associated with RHR, core spray, and ADS; Division A, RCIC; and Division B, HPCI.

   Existing fire protection for the zone consists of an area-wide fire detection system which alarms in the control room; portable fire extinguishers; and manual hose stations.

   The licensee has committed to install a water spray fire suppression system at the open interface areas of zones RB-1B and RB-1A and a fire

barrier or a water spray system at the open stairway. The system will be designed to discharge water in a "curtain" pattern to preclude the spread of fire damage beyond a single zone.

The zones are not in compliance with the above-mentioned provisions of Section III.G and III.L of Appendix R. The staff was concerned that because of the absence of a complete fire rated barrier between zones, redundant shutdown-related systems, which are located in adjoining zones, would be vulnerable to fire damage.

However, the fire zones are provided with complete fire detection systems which achieve area-wide coverage. Upon activation, these systems alarm both visually and audibly in the control room. These systems provide us with reasonable assurance that a fire would be detected in its initial stage before significant damage occurred. The fire would then be extinguished by the fire brigade using manual fire fighting equipment.

If the fire propagated beyond the immediate area of fire origin, the masonry walls, floor and ceiling would confine the damage to the affected fire zone. At the common zone boundaries, where no such physical barriers exist, the proposed water spray system is designed to activate and discharge water in a "curtain" pattern so as to prevent fire spread into the horizontally or vertically adjoining zones. This type of system has been used successfully to protect conveyor openings in fire walls and escalator openings in buildings. Therefore, there is reasonable assurance that redundant shutdown

systems in adjoining zones would remain free until the fire was suppressed manually.

Based on our review of the licensee's submittals, we conclude that the existing fire protection with the proposed modifications provide a level of fire protection equivalent to that provided by Section III.G. Therefore, the exemption requested by the licensee for zones RB-1B and RB-1A (southwest quadrant of the reactor building at elevations 300 and 326 feet) should be granted.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, an exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. Therefore, the Commission hereby approves the following exemption request:

Exemption is granted to the extent indicated from the requirements of Sections III.G and III.L of Appendix R to 10 CFR Part 50 for the following areas:

1. Zones RB-1E and RB-1W (east and west sections of the reactor building crescent area) - to the extent that either (1) a 3-hour fire rated barrier between redundant shutdown divisions is required, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles, or a 1-hour fire barrier, is required, or (3) an alternate shutdown capability independent of fire area, is required.
2. Zones RB-1A and RB-1E (southeast quadrant of the reactor building at elevation 272 feet and the east section of the crescent area)

- to the extent that either (1) a 3-hour fire rated barrier between redundant shutdown divisions is required, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles, or a 1-hour fire barrier, is required, or (3) an alternate shutdown capability independent of fire area, is required.

3. Zones RB-1A and RB-1C (northeast quadrants of the reactor building at elevations 300 and 320 feet) - to the extent that either (1) a 3-hour fire rated barrier between redundant shutdown divisions is required, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles, or a 1-hour fire barrier, is required, or (3) an alternate shutdown capability independent of fire area, is required.

4. Zones RB-1E and RB-1W (east and west sections of the reactor building crescent area) - to the extent that either (1) a 3-hour fire rated barrier between redundant shutdown divisions is required, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles, or a 1-hour fire barrier, is required, or (3) an alternate shutdown capability independent of fire area, is required.

5. Zones RB-1A and RB-1B (southeast and southwest quadrants of the reactor building at elevations 272 and 300 feet) - to the extent that either (1) a 3-hour fire rated barrier between redundant shutdown divisions is required, (2) an area-wide automatic fire

suppression system with separation by 20 feet free of intervening combustibles, or a 1-hour fire barrier, is required, or (3) an alternate shutdown capability independent of fire area, is required.

6. Zones RB-1B and RB-1C (northwest and southwest quadrants of the reactor building at elevation 300 feet) - to the extent that either (1) a 3-hour fire rated barrier between redundant shutdown divisions is required, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles, or a 1-hour fire barrier, is required, or (3) an alternate shutdown capability independent of fire area, is required.

7. Zones RB-1B and RB-1A (southwest quadrant of the reactor building at elevations 300 and 326 feet) - to the extent that either (1) a 3-hour fire rated barrier between redundant shutdown divisions is required, (2) an area-wide automatic fire suppression system with separation by 20 feet free of intervening combustibles, or a 1-hour fire barrier, is required, or (3) an alternate shutdown capability independent of fire area, is required.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of these exemptions will have no significant impact on the environment (49 FR 45513).

FOR THE NUCLEAR REGULATORY COMMISSION

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland,
this 11th day of January 1985.