

Docket Nos. 50-266
and 50-301

July 3, 1985

Mr. C. W. Fay, Vice President
Nuclear Power Department
Wisconsin Electric Power Company
231 West Michigan Street
Milwaukee, Wisconsin 53201

Dear Mr. Fay:

The Commission has issued the enclosed Exemption to Appendix R of 10 CFR Part 50 in partial response to your letter of June 30, 1982 as supplemented by letters dated September 29 and October 11, 1982, February 7 and 25, April 28, May 31, July 20 and October 26, 1983, April 4 and 27, 1984 and January 3 and 9, 1985. The Exemption allows alternatives to the following requirements of Appendix R:

- 1) To the 20-foot horizontal separation and full coverage, automatic fire suppression system requirements of Section III.G.2.b for the Unit 1 Motor Control Center Room (fire zone 1), the Component Cooling Water Pump Room (fire zone 3), the Unit 2 Motor Control Center Room (fire zone 4).
- 2) To the fixed fire suppression system requirements of Section III.G.3.b for the Containment Spray Additive and Monitor Tank Room (fire zone 7) and from the full coverage automatic fire suppression requirements of Section III.G.2.b for the Safety Injection and Containment Spray Pump Room (fire zone 2).
- 3) To the 20-foot horizontal separation requirement of Section III.G.2.b for the Auxiliary Feedwater Pump Room (fire area 5) and the Cable Spreading Room (fire area 8).

The staff has determined that the exemptions requested from the 20-foot horizontal separation, automatic fire suppression and/or radiant energy shield requirements of Sections III.G.2.d, e, and f for the Unit 1 Containment, southeast quadrant (fire zone 10) are not needed. Further, the staff has determined that the exemption from the requirement of Section III.G.3 that the alternative shutdown features be completely independent of the area for the Cable Spreading Room (fire area 5) is not needed. The staff has also determined from your submittals that exemption from the 20-foot separation requirement of Section III.G.2.b for fire zone 2 is also not needed.

The basis for the relief granted is contained in the enclosed Exemption. A notice of granting of the Exemption is being forwarded to the Office of the Federal Register for publication.

The staff notes that your request for exemption from the 20-foot horizontal separation, automatic fire suppression and/or radiant energy shield requirements of Sections III.G.2.d, e, and f for the Unit 2 Containment, southeast quadrant has been withdrawn by your April 28, 1983 letter. The remainder of your requested exemptions are under staff review.

Sincerely,

~~Original signed by:~~

Edward J. Butcher, Acting Chief
Operating Reactors Branch #3
Division of Licensing

Enclosure:
Exemption

cc w/enclosure:
See next page

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

WISCONSIN ELECTRIC
POWER COMPANY

(Point Beach Nuclear Plant
Unit Nos. 1 and 2)

}
}
} Docket Nos. 50-266
and 50-301
}

EXEMPTION

I.

Wisconsin Electric Power Company (the licensee) is the holder of Facility Operating License Nos. DPR-24 and DPR-27 (the licenses) which authorize operation of the Point Beach Nuclear Plant, Unit Nos. 1 and 2 respectively (the facilities), at a steady state reactor power level not in excess of 1518 megawatts thermal (rated power). The facilities consist of Westinghouse Electric Corporation designed pressurized water reactors (PWRs) located at the licensee's site in Manitowoc County, Wisconsin.

The licenses provide, among other things, that they are subject to all rules, regulations and orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

II.

On November 19, 1980, the Commission published a revised Section 10 CFR 50.48 and a new Appendix R to 10 CFR Part 50 regarding fire protection features of nuclear

power plants (45 F.R. 76602). The revised Section 50.48 and Appendix R became effective on February 17, 1981. Section III of Appendix R contains 15 subsections, lettered A through O, each of which specifies requirements for a particular aspect of the fire protection features at a nuclear power plant. One of these 15 subsections, III.G, is the subject of this exemption request.

Section III.G details the requirements for fire protection of safe shutdown capability. Specifically, Section III.G.1 requires that fire protection features shall be provided for structures, systems and components important to safe shutdown. These features shall be capable of limiting fire damage such that one train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station(s) shall be free of fire damage and systems necessary to achieve and maintain cold shutdown from either the control room or emergency station(s) shall be capable of being repaired within 72 hours.

Section III.G.2 provides requirements to ensure that the objectives of Section III.G.1 are met. Section III.G.3 specifies the requirements for alternative or dedicated shutdown capability necessary to ensure that the objectives of Section III.G.1 are met given that the specific provisions of Section III.G.2 cannot be met.

III.

By letter dated June 30, 1982 as supplemented September 29 and October 11, 1982, February 7 and 25, April 28, May 31, July 20, and October 26, 1983, April 4 and 27, 1984 and January 3 and 9, 1985, the licensee requested

exemptions from Section III.G "Fire Protection of Safe Shutdown Capability" of Appendix R to 10 CFR Part 50. These requests include, in part, the following exemptions:

- 1) An exemption from the 20-foot horizontal separation and automatic fire suppression system requirements of Section III.G.2.b for the Unit 1 Motor Control Center Room (fire zone 1), the Safety Injection, Containment Spray Pump Room (fire zone 2), the Component Cooling Water Pump Room (fire zone 3), and the Unit 2 Motor Control Center Room (fire zone 4).
- 2) An exemption from the fire suppression requirements of Section III.G.3.b for the Monitor Tank Room (fire zone 7).
- 3) An exemption from the 20-foot horizontal separation requirement of Section III.G.2.b for the Auxiliary Feedwater Pump Room (fire zone 5) and the Cable Spreading Room (fire area 8).
- 4) An exemption from the Section III.G.3 requirement that the alternative shutdown features be completely independent of the area for the Cable Spreading Room (fire area 8).

The staff's evaluation of these exemption requests is contained below.

IV.

Section III.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 by one of the following means:

- (1) 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.

- (2) 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.
- (3) 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.

If these conditions are not met, Section III.G.3 requires that there be 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, design-basis protective features rather than design-basis fires are specified in the rule. Plant-specific features may require protection different from 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.

In summary, Section III.G is related to fire protection features for ensuring that systems and associated circuits used to achieve and maintain safe shutdown are free of damage. Either fire protection configurations must meet the specific requirements of Section III.G or an alternative fire protection configuration must be justified by a fire hazard analysis. Generally, the staff will accept an alternative fire protection configuration if:

- (1) The alternative ensures that one train of equipment necessary to achieve hot shutdown from either the control room or emergency control stations is free of fire damage.
- (2) Fire-retardant coatings are not used as fire barriers.
- (3) Modifications required to meet Section III.G would not enhance fire protection safety levels above that provided by either existing or proposed alternatives.
- (4) Modifications required to meet Section III.G would be detrimental to overall facility safety.

Exemption Requested

The licensee requests an exemption from Section III.G.2 to the extent it requires 20 feet of separation without intervening combustibles between redundant trains, and the installation of total area coverage automatic fire suppression systems.

Fire Zone 1 - Unit 1 Motor Control Center Room

Fire Zone 1 is located in the Auxiliary Building at elevation 8'-0". It is not separated from adjoining areas by fire-rated barriers. Access to the area is by 8-foot high doorless entrance ways. By letter dated July 20, 1983 the licensee committed to install water curtains in each unprotected entranceway to prevent the spread of products of combustion from postulated fires into the zone. The existing fire protection in the area consists of smoke detectors, standpipe hose stations and portable fire extinguishers.

The in-situ combustible loading in the area is cable insulation comprising a fuel load of 48,000 BTU/Sq. Ft. which, if totally consumed, would correspond to a fire severity of about 35 minutes on the ASTM-E119 standard time temperature curve.

The fire zone contains redundant divisions of the Unit 1 charging pumps and control and power cables associated with the pumps. The three charging pumps are separated by approximately 12 feet. Each pump is in a separate cubicle. The cubicles are constructed of 3-hour fire rated barriers with the exception of the doorless entranceways leading into the cubicles. The existing redundant cables are not separated by 20 feet free of intervening combustibles. The cables are installed in open horizontal cable trays and conduits and installed within 3 feet of the ceiling.

By letter dated April 28, 1983, the licensee proposed to relocate one train of redundant charging pump power and control cables; however, after relocation the separation between redundant cables will not be free of intervening combustibles. The licensee has committed to install approved fire stops in the cable trays installed between the redundant trains to prevent propagation of fire from one area of the zone to the other by the cable trays.

By letter dated April 28, 1983, the licensee also proposed to install a partial area coverage automatic sprinkler system. The licensee has committed to expand the sprinkler coverage to all areas of the zone with the exception of the area surrounding the motor control center in the zone.

Fire Zone 4 - Unit 2 Motor Control Center Room

Fire Zone 4 is located in the Auxiliary Building at elevation 8'-0" and is not separated from adjoining areas by fire-rated walls. Access to the area is via 8-foot-high doorless entranceways. By letter dated July 20, 1983, the licensee committed to install water curtains in each unprotected entranceway to prevent the spread of products of combustion from postulated fires into the zone.

The existing fire protection in the areas is provided by smoke detectors, standpipe hose stations and portable fire extinguishers. The in-situ combustible in the area is cable insulation, comprising a fuel load of 48,000 BTU/Sq. Ft. which, if totally consumed, could correspond to a fire severity of about 35 minutes on the ASTM E-119 standard time temperature curve.

This zone contains the redundant Unit 2 charging pumps, and the power and control cables associated with the pumps. The charging pumps are separated by approximately 12 feet. Each pump is installed in a separate cubicle. The cubicles are constructed of 3-hour fire rated barriers with the exception of the doorless entrance ways leading into the cubicle. The redundant cables are currently separated by one foot.

By letter dated April 28, 1983, the licensee proposed to separate the Division A power and control cables and local control panel; however, after relocation, the separation between the redundant cables will not be free of intervening combustibles. The intervening combustibles are PE/PVC cable in approximately four open horizontal cable trays installed between the redundant trains. By letter dated July 20, 1983, the licensee committed to install approved fire stops in the cable trays located between the redundant trains to prevent propagation of fire from one area of the zone to the other by the cable trays.

By letter dated April 28, 1983, the licensee also proposed to install a partial area coverage automatic sprinkler system. By letter dated July 20, 1983, the licensee committed to expand the sprinkler coverage to all areas of the zone with the exception of the area surrounding the motor control center.

Evaluation

These zones do not comply with Section III.G because redundant trains are not separated by 20 feet free of intervening combustibles and the automatic suppression system does not protect the entire area.

The proposed automatic sprinkler system provides protection for the majority of in-situ combustibles in the zones. The proposed fire stops will prevent cable tray fires from spreading to the portions of the zones containing redundant cable. The staff finds that the relocating of the charging pump power and control cables, and the additional and existing fire protection provide reasonable assurance that one train of charging pumps will be maintained free of fire damage.

Conclusion

Based on the above evaluation, the staff concludes that the proposed modifications and commitments with the existing fire protection for Motor Control Center Rooms for Unit 1 and Unit 2 provide a level of fire protection equivalent to the technical requirements of Section III.G of Appendix R, and therefore, the exemption should be granted.

Fire Zone 2 - Safety Injection and Containment Spray Pump Room

Exemption Requested

The licensee requests exemptions from Section III.G.2 to the extent it requires the installation of a total area fire suppression system and to the extent that it requires 20 feet of separation without intervening combustibles between redundant trains.

Discussion

Fire Zone 2 is located in the Auxiliary Building on elevation 8'-0". It is not separated from adjoining areas by fire-rated walls. Access to the area is by 8 feet high doorless entranceways. By letter dated July 20, 1983, the licensee committed to install a water curtain at each entranceway into the

zone. The fire protection in the area is provided by a partial coverage wet pipe sprinkler system, smoke detectors, standpipe hose stations and portable fire extinguishers. This fire zone contains safety injection and containment spray pumps for both units. The safety injection pumps are protected by a wet pipe automatic sprinkler system; however, the system does not extend to where the Division B cables are proposed to be installed.

The in-situ combustibles in the area are cable insulation and 8 gallons of lubricating oil. The combustibles comprise a fuel load of approximately 25,500 BTU/Sq. Ft. which, if totally consumed, would correspond to a fire severity of about 17 minutes on the ASTM E-119 standard time temperature. This area contains redundant divisions of the Unit 1 charging pumps power and control cables. The redundant cables are installed in open horizontal cable trays and conduits within 3 feet of the ceiling. The cables are currently separated by approximately 1 foot. By letter dated April 28, 1983, the licensee proposed to relocate the Division B charging pump power and control cables to achieve 20 feet of horizontal separation free of intervening combustibles. The licensee also indicated in the April 28, 1983 letter that the existing sprinkler system provides protection for the Division A cables.

Evaluation

This area does not comply with Section III.G because the automatic suppression system does not protect the entire area.

The majority of in-situ combustibles are protected by the existing sprinkler system in addition to the Division A charging pump power and control cables. It is the staff's opinion that the proposed relocation of the Division B charging pump power and control cables and the existing sprinkler and detection systems provide reasonable assurance that one train will be maintained free of fire damage.

Conclusion

Based on the above evaluation, the staff concludes that the proposed modifications and the existing protection for the safety injection and containment spray pump room provide a level of fire protection equivalent to the technical requirements of Section III.G. The exemption should, therefore, be granted from the requirement for total coverage by automatic suppression. The staff finds that the licensee meets the 20 feet separation requirements for this zone; therefore, that exemption is not needed.

Fire Zone 3 - Component Cooling Water Pump Room

Discussion

Fire Zone 3 is located in the Auxiliary Building on elevation 8'-0". It is not separated from adjoining areas by fire-rated walls. Access to the area is by 8 feet high doorless entranceways. By letter dated July 20, 1983, the licensee committed to install water curtains in each unprotected entranceway to prevent the spread of products of combustion from postulated fires into the zone.

The fire protection in the area consists of a partial coverage sprinkler system, smoke detectors, standpipe hose stations and portable fire extinguishers.

The combustible in the area is cable insulation comprising a fuel load of 52,800 BTU/Sq. Ft. which, if totally consumed, would correspond to a fire severity of about 40 minutes on the ASTM E-119 standard time temperature curve.

The zone contains four component cooling water pumps and associated piping and valves. For each unit, one pump is required to achieve and maintain cold shutdown. Redundant component coolant water pumps serving the same unit are approximately 7 feet 6 inches apart. Units 1 and 2 pumps are approximately

16 feet 7 inches apart. Automatic sprinkler protection has been installed to protect the component cooling water pump area. The component cooling water pumps are required only for cold shutdown. Redundant divisions of the Unit 2 charging pumps power and control cables are located in the area.

The cables associated with safety systems are installed in open horizontal cable trays and conduits. They are located between 13 and 16 feet above the floor. The redundant cables are separated by approximately one foot and installed within three feet of the ceiling. The ceiling height is 16 feet 6 inches. By letter dated April 28, 1983, the licensee proposed to relocate the Unit 2 Division A cables; however, after relocation the separation between redundant cables will not be free of intervening combustibles. The intervening combustibles are PE/PVC cables in approximately 15 full open horizontal cable trays installed between the redundant trains. By letter dated July 20, 1983, the licensee has committed to completely enclose one train of charging pump power and control cables in an approved 1-hour fire rated barrier and extend the existing sprinkler system to the south wall of the zone to provide sprinkler coverage for the majority of the in-situ combustibles.

Evaluation

This area does not comply with Section III.G because the automatic fire suppression system does not provide total area coverage. The primary combustible material in the area is cable insulation. The licensee has committed to expand the existing sprinkler coverage to provide coverage over the majority of cable trays in the zone. The licensee also committed to enclose one train of charging pump cables in an approved 1-hour fire rated barrier.

It is the staff's opinion that the relocation and enclosure of one train of cables is a 1-hour fire barrier and the extension of the existing sprinkler coverage together with the existing fire protection provides reasonable assurance that one train will be maintained free of fire damage.

Conclusion

Based on the above evaluation, the staff concludes that the proposed modifications, the additional commitments, and the existing protection for the component cooling water pump room provides a level of fire protection equivalent to the technical requirements of Section III.G. The exemption should, therefore, be granted.

Fire Area 5 - Auxiliary Feedwater Pump Room

Exemption Requested

The licensee requests an exemption from Section III.G.2.b to the extent that it requires 20 feet of separation without intervening combustibles between redundant trains.

Discussion

Fire Area 5 is located in the Control Building on elevation 8'-0". The area is separated from other plant areas by 3-hour fire rated barriers. The Fire Area contains the following redundant safe shutdown equipment:

- Four auxiliary feedwater pumps (two steam-driven, two electric motor-driven) for both Units 1 and 2,
- Remote shutdown panels for operation of the electric auxiliary feedwater pumps and containment cooling fans,
- Unit 1 and 2 charging pump cables, and
- Service water pump cables

The auxiliary feedwater system is required for safe shutdown. Each steam-driven pump is 100% capacity and dedicated to a single unit while each electric motor-driven pump is 50% capacity and capable of supplying feedwater to a steam generator of either Unit 1 or 2. Each auxiliary feedwater pump is installed in an individual bay and isolated from the other pumps by concrete partitions which run floor to ceiling, but the partitions do not separate the pumps from each other or the fire area by fire rated barriers. The pumps are installed approximately 14 feet apart on centers. Any one auxiliary feedwater pump will provide sufficient flow to a unit to maintain hot shutdown conditions. The steam admission valves to the steam driven auxiliary feedwater pumps are located outside of and are independent of Fire Area 5. The motor driven auxiliary feedwater pumps can be aligned to serve either unit. Therefore, fire damage to three auxiliary feedwater pumps would be required to deprive either unit of the required supply. The separation distance between non-adjacent auxiliary feedwater pumps is 29 feet. Combined with the automatic suppression and detection, the staff considers this to be satisfactory to meet Appendix R requirements.

Redundant safe shutdown cabling in the area is installed in both open horizontal cable trays and conduit. The redundant open cable trays are installed between 13 and 16 feet above the floor and installed within 3 feet of the ceiling.

Power and local control cables for three division "A" and three division "B" service water pumps are located in this fire area. The minimum separation between cables of each division is 26 feet with a maximum separation of 60 feet; however, the separation is not free of intervening combustibles. The intervening combustibles are in the form of PE/PVC cables in trays installed between

13 and 16 feet above the floor; however, all trays are installed parallel to the trays containing safe shutdown cables.

Redundant divisions of the charging pump power and local control cables for each unit are located in this fire area. The cables penetrate the ceiling to switchgear mounted on the floor above. The separation distance between penetrations is 11 feet. By letter dated April 28, 1983, the licensee proposed to enclose one division of cables for each unit in a 1-hour fire rated barrier. The fire protection in the area is provided by an automatic Halon 1301 fire suppression system, smoke detectors, standpipe hose stations and portable fire extinguishers. The combustibles in the area are cable insulation and lubricating oil. The combustibles comprise a fuel load of 24,000 BTU/Sq. Ft. which, if totally consumed, would correspond to a fire severity of approximately 20 minutes on the ASTM E-119 standard time temperature curve.

Evaluation

The area is not in compliance with Section III.G because the minimum separation distance free of intervening combustibles between redundant service water trains of cables is less than 20 feet and there is no alternate shutdown capability for the service water components independent of this room.

Minimum separation between redundant trains is 26 feet with a maximum distance of 60 feet; however, the separation contains cable trays installed horizontal and parallel to the trays containing the service water cables. Because of the wide separation of redundant cables, the configuration and limited amount of intervening combustibles and installed automatic fire suppression and detection systems, it is unlikely that an exposure fire or electrically initiated cable tray fire of sufficient magnitude to damage redundant trains could occur prior to activation of the Halon system and the arrival of the fire brigade.

Conclusion

Based on the above evaluation, the staff concludes that the protection with the commitment for the auxiliary feedwater pump room provides a level of fire protection equivalent to the technical requirements of Section III.G; therefore, the exemption should be granted.

Fire Zone 7 - Containment Spray Additive Tank and Monitor Area

Exemption Requested

The licensee requested an exemption from Section III.G.3 to the extent that a fixed fire suppression system be installed in areas where alternate shutdown capability has been provided.

Discussion

Fire Zone 7 is located in the Auxiliary Building at elevation 26'-0". The area is separated from adjoining areas by non-fire-rated walls. Access to the area is provided by 8-foot high open archways. The area contains an open stairwell and hatch which allow direct communication with areas above and below. Fire protection in the area is provided by smoke detectors, standpipe hose stations and portable fire extinguishers.

The combustible in the area is cable insulation comprising a fuel load of 36,000 BTU/Sq. Ft. which, if totally consumed, would correspond to a fire severity of approximately 27 minutes on the ASTM E-119 standard time temperature curve.

Evaluation

The containment spray additive and monitor tank area contains redundant channels of required primary and secondary system instrumentation for both units. The licensee has proposed to provide alternative indication for the necessary instrumentation in the event of fire in the containment spray

additive and monitor tank area, the cable spreading room, or the control room. Transfer switches will be installed to transfer indication of one channel of the following parameters from the control room to the alternate locations in the Unit 1 and Unit 2 charging pump areas and auxiliary feed pump areas:

1. In charging pump areas (Units 1 and 2)
 - a. Pressurizer level
 - b. Reactor coolant system pressure
2. In auxiliary feed pump area (Units 1 and 2)
 - a. Steam generator B level
 - b. Steam generator B pressure
 - c. Reactor coolant loop B hot leg temperature
 - d. Reactor coolant loop B cold leg temperature

Steam Generator A level and pressure indication is currently provided in the auxiliary feed pump area and therefore, no modifications are required for these indications.

The licensee has proposed the use of a spare portable instrument or suitably installed spare instrument rack for post-fire alternative source range flux monitoring indication. If a portable instrument is selected, it will be equipped with a plug, and a proper receptacle will be provided.

The licensee has stated that alternate power sources independent of the normal shutdown instrumentation power supplies will be provided for the alternate safe shutdown instrumentation. The licensee needs to make one of three proposed modifications in order to provide the required alternative power supplies. A final decision regarding which of the following approaches will be employed will be made by the licensee after an onsite review of the following alternative designs:

1. A new and independent battery will be provided at each instrument location with an ac/dc inverter and battery charger powered from a local 120V ac source; or
2. An ac/dc inverter will be provided at each instrument location powered from the new station battery via an independent dc power cable routed to avoid the areas of concern; or
3. An ac/dc inverter will be provided at each instrument location powered from an existing station battery via an independent dc power cable routed to avoid the areas of concern.

The staff concludes that any of the above three alternatives for a power supply to the alternative shutdown instrumentation is acceptable.

In this area, the combustible loading is moderate, fire detection and manual fire suppression equipment is available. There is, therefore, reasonable assurance that a fire in this area would be promptly detected and extinguished. The moderate combustible loading in the area ensures that adjacent areas will not be threatened. The installation of a fixed fire suppression system will not significantly increase the level of fire protection in this area. There is alternate shutdown capability, independent of this area.

Conclusion

Based on the above evaluation, the staff finds that the existing fire protection in conjunction with alternate shutdown capability for the Containment Spray Additive Tank and Monitor Area provides a level of fire protection equivalent to the technical requirements of Section III.G.3 of Appendix R, and therefore, the exemption should be granted.

Fire Area 8 - Cable Spreading Room

Exemption Requested

The licensee requests an exemption from Section III.G.3 to the extent it requires alternative shutdown capability be installed independent of the fire area for the power supply to the charging pumps.

Discussion

The Cable Spreading Room is located in the Control Building at elevation 26'-0". The area is separated from other plant areas by 3-hour fire rated barriers. The fire protection in the area is provided by an automatic Halon 1301 fire suppression system, smoke detectors, standpipe hose stations and portable fire extinguishers.

The Cable Spreading Room contains the redundant trains of charging pump power and control circuits such that either or both units could have their associated three charging pumps affected by one fire. The licensee has proposed modifications such that one charging pump for each unit with necessary instrumentation will be operable and free of fire damage as a result of the proposed modification for fires in these areas of concern. To accomplish this, the power cables for one Unit 1 charging pump and two Unit 2 charging pumps will be rerouted to provide adequate separation. The power and control cables for one Unit 1 charging pump will be enclosed in a 1-hour fire rated barrier to preclude fire damage to redundant safe shutdown equipment. An alternate power source to one charging pump in each unit will be provided by the addition of breakers to be installed in an existing panel for Unit 1 and in a relocated panel for Unit 2.

In the event that a postulated fire occurs in the Cable Spreading Room and disables both essential Unit 1 buses (1B03 and 1B04) thus causing loss of power to all three Unit 1 charging pumps, power to one pump will be restored by operation of the breaker pair in the Unit 1 charging pump room, which electrically disconnects the pump from the associated Unit 1 bus and provides alternate power from a Unit 2 bus. Similarly, power will be restored to one Unit 2 charging pump by providing alternate power from a Unit 1 bus should a Cable Spreading Room fire disable the Unit 2 buses. The Unit 1 and Unit 2 buses are located in the cable spreading room but are separated by greater than 20 feet.

Evaluation

The licensee has proposed to provide alternative shutdown capability for the charging pumps which is not independent of the Cable Spreading Room; however, the alternative system is separated by greater than 20 feet and protected with an automatic detection and suppression system.

All cables in the Cable Spreading Room have been installed in conduit or solid bottom cable trays with screwed on covers. Each tray is provided with a 1/2-inch thick full width insulating blanket between the cable and tray cover. It is the staff's opinion that the combination of separation of alternative shutdown system in conjunction with complete area-wide automatic suppression and detection and the enclosed, blanketed cable trays provide reasonable assurance that one train of equipment needed to achieve safe shutdown will be maintained free of fire damage. The existing fire detection system will detect a fire in its incipient stage before significant damage could occur. The fire would be either automatically suppressed by the Halon

could occur. The fire would be either automatically suppressed by the Halon 1301 extinguishing system or manually by the fire brigade. Until the fire is extinguished, the separation of the alternative safe shutdown train and the enclosed, blanketed cable trays provide adequate passive protection.

The staff finds that the alternative shutdown system installed in the cable spreading room would be independent from the effects of a fire in the zone under consideration containing the normal shutdown train, therefore, this configuration meets the requirement of Section III.G.3 of Appendix R.

Conclusion

Based on the above evaluation, the staff finds that the existing fire protection in conjunction with alternate shutdown capability for the Cable Spreading Room (Fire Area 8) meets the technical requirements of Section III.G.3 of Appendix R and, therefore, the exemption is not needed.

Fire Zone 10 - Unit 1 Southeast Containment Sector at Elevation 21 feet

By letter dated June 30, 1982, the licensee requested an exemption from Section III.G.2 of Appendix R.

By letter dated April 28, 1983, the licensee committed to install radiant energy shields to separate the redundant pressurizer pressure and level cables in accordance with Section III.G.2 of Appendix R.

With the licensee's commitments, the protection provided for safe shutdown train in Fire Zone 10 now meets the technical requirements of Section III.G.2 of Appendix R and, therefore, an exemption is not needed.

V.

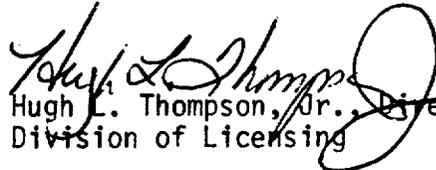
Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), and provided that the licensee fulfills then commitments as identified in section IV of this Exemption, the exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest and hereby grants exemptions from the requirements of Section III.G. of Appendix R to the extent that they require:

- 1) 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 and a full coverage, automatic fire suppression system in the fire area for the Point Beach Unit 1 Motor Control Center Room (fire zone 1), the Component Cooling Water Pump Room (fire zone 3) and the Point Beach Unit 2 Motor Control Center Room (fire zone 4).
- 2) A fixed fire suppression system for the Containment Spray Additive and Monitor Tank Room (fire zone 7) and a full coverage, automatic fire suppression system for Safety Injection and Containment Spray Pump Room (fire zone 2).
- 3) 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 for the Auxiliary Feedwater Pump Room (fire area 5) and the Cable Spreading Room (fire area 8).

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of the Exemption will have no significant impact on the environment (50 FR 20863).

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Hugh L. Thompson, Jr., Director
Division of Licensing

Dated at Bethesda, Maryland this 3rd day of July, 1985.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-266 AND 50-301WISCONSIN ELECTRIC POWER COMPANYNOTICE OF GRANTING OF EXEMPTION FROM APPENDIX R TO 10 CFR PART 50FIRE PROTECTION REQUIREMENTS

The U. S. Nuclear Regulatory Commission (the Commission) has granted an Exemption from certain requirements of Appendix R to 10 CFR Part 50 to Wisconsin Electric Power Company (the licensee). The Exemption relates to the fire protection program for the Point Beach Nuclear Plant, Unit Nos. 1 and 2 (the facilities) located in Manitowoc County, Wisconsin. The Exemption is effective as of July 3, 1985.

The Exemption allows alternative fire protection features to certain requirements of Subsection III.G of Appendix R to 10 CFR Part 50 as follows:

- 1) To the 20-foot horizontal separation and full coverage, automatic fire suppression system requirements of Section III.G.2.b for the Unit 1 Motor Control Center Room (fire zone 1), the Component Cooling Water Pump Room (fire zone 3), the Unit 2 Motor Control Center Room (fire zone 4).
- 2) To the fixed fire suppression system requirements of Section III.G.3.b for the Containment Spray Additive and Monitor Tank Room (fire zone 7) and from the full coverage automatic fire suppression requirements of Section III.G.2.b for the Safety Injection and Containment Spray Pump Room (fire zone 2).

- 3) To the 20-foot horizontal separation requirement of Section III.G.2.b for the Auxiliary Feedwater Pump Room (fire area 5) and the Cable Spreading Room (fire area 8).

The Exemption is granted on the basis that the proposed alternative existing and additional fire protection features provide equivalent protection to the requirements of Appendix R. Requiring literal compliance to Appendix R would not enhance the fire protection safety in the facilities. Details are provided in the Exemption.

The requests for the Exemption comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations which are set forth in the Exemption.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of the Exemption will have no significant impact on the environment (50 FR 20863).

For further details with respect to this action, see (1) the application for exemptions dated June 30, 1982 as supplemented by letters dated September 29 and October 11, 1982, February 7 and 25, April 28, May 31, July 20 and October 26, 1983, April 4 and 27, 1984, and January 3 and 9, 1985, (2) the Commission's letter

dated July 3, 1985, and (3) the Exemption dated July 3, 1985 . All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Joseph P. Mann Library, 1516 Sixteenth Street, Two Rivers, Wisconsin. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 3rd day of July, 1985.

FOR THE NUCLEAR REGULATORY COMMISSION


Hugh L. Thompson, Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation

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- 3) To the 20-foot horizontal separation requirement of Section III.G.2.b for the Auxiliary Feedwater Pump Room (fire area 5) and the Cable Spreading Room (fire area 8).

- 4) To the requirement of Section III.G.3 that the alternative shutdown feature be completely independent of the area for the Cable Spreading Room (fire area 8).

The Exemptions are granted on the basis that the proposed alternative existing and additional fire protection features provide equivalent protection to the requirements of Appendix R. Requiring literal compliance to Appendix R would not enhance the fire protection safety in the facilities. Details are provided in the Exemption.

The requests for the Exemption comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations which are set forth in the Exemption.

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FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By:

Hugh L. Thompson, Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation

ORB#3:DL
PKreutzer
5/23/85

ORB#3:DL
TColburn:dd
5/22/85

ORB#3:DL
RMiller
5/28/85

AD:OR:DL
GCLatnas
6/2/85

AD:DLH
HThompson
7/3/85

JWS shollos
JVM
W. SHIELDS
DELD
6/19/85
dmf

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The Exemptions allow alternative fire protection features to certain requirements of Subsection III.G of Appendix R to 10 CFR Part 50 as follows:

- 1) To the 20-foot horizontal separation and full coverage, automatic fire suppression system requirements of Section III.G.2.b for the Unit 1 Motor Control Center Room (fire zone 1), the Component Cooling Water Pump Room (fire zone 3), the Unit 2 Motor Control Center Room (fire zone 4).
- 2) To the fixed fire suppression system requirements of Section III.G.3.b for the Containment Spray Additive and Monitor Tank Room (fire zone 7) and from the full coverage automatic fire suppression requirements of Section III.G.2.b for the Safety Injection and Containment Spray Pump Room (fire zone 2).

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- 4) To the requirement of Section III.G.3 that the alternative shutdown feature be completely independent of the area for the Cable Spreading Room (fire area 8).

The Exemptions are granted on the basis that the proposed alternative existing and additional fire protection features provide equivalent protection to the requirements of Appendix R. Requiring literal compliance to Appendix R would not enhance the fire protection safety in the facilities. Details are provided in the Exemption.

The requests for the Exemption comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations which are set forth in the Exemption.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of the Exemption will have no significant impact on the environment (50 FR 20863).

For further details with respect to this action, see (1) the application for exemptions dated June 30, 1982 as supplemented by letters dated September 29 and October 11, 1982, February 7 and 25, April 28, May 31, July 20 and October 26, 1983, April 4 and 27, 1984, and January 3 and 9, 1985, (2) the Commission's letter

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