October 28, 2004

Mr. Thomas J. Palmisano
Site Vice President
Monticello Nuclear Generating Plant
Nuclear Management Company, LLC
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT— EXEMPTION FROM THE REQUIREMENTS OF 10 CFR PART 50, APPENDIX R, SECTION III.G.2.B. APPLYING TO FIRE AREA IX/FIRE ZONE 23A - INTAKE STRUCTURE PUMP ROOM (TAC NO. MC1803)

Dear Mr. Palmisano:

The U.S. Nuclear Regulatory Commission has approved the enclosed permanent exemption from the requirement of Title 10 of the *Code of Federal Regulations*, Part 50, Appendix R, Section III.G.2.b for separation of redundant trains with no intervening combustible or fire hazards as it applies to Fire Area IX/Fire Zone 23A. Fire Area IX/Fire Zone 23A corresponds to the intake structure pump room at Monticello Nuclear Generating Plant. This action is in response to your letter of November 17, 2003, as supplemented July 16, 2004.

Nuclear Management Company, LLC's (NMC's) commitments from its letters of November 17, 2003, and July 16, 2004, follow:

- Drain piping constructed of polyvinyl chloride and a high-density polyethylene drum located in Fire Area IX/Fire Zone 23A will be eliminated as intervening combustibles.

- Cable trays YS4 and YB3 located in Fire Area IX/Fire Zone 23A will be individually covered with sheet metal on top and bottom from the electric fire pump control panel (C103) west to the end of the trays.

- The Division I cables associated with the Residual Heat Removal Service Water (RHR SW) pump motor cooling water valves (SV-4937A and SV-4937C) will be re-routed within the Intake Structure Pump room to provide adequate separation from Division II RHR SW components and cables consistent with the exemption request.

NMC indicated in its letters that it would complete these commitments by the end of the next refueling outage after approval of the exemption request.

A copy of the exemption has been forwarded to the Office of the *Federal Register* for publication.

Sincerely,

/RA/

L. Mark Padovan, Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosure: Exemption

cc w/enclosure: See next page

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

NUCLEAR MANAGEMENT COMPANY, LLC

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

EXEMPTION

1.0 BACKGROUND

The Nuclear Management Company, LLC (NMC) is the holder of Facility Operating License No. DPR-22 which authorizes operation of the Monticello Nuclear Generating Plant (MNGP). NMC provides, among other things, that the facility is subject to all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (NRC, the Commission) now or hereafter in effect. The facility consists of a boiling-water reactor located in Wright County, Minnesota.

2.0 REQUEST/ACTION

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.48(b), "Fire Protection," specifies that Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," established fire protection requirements to satisfy 10 CFR Part 50, Appendix A, General Design Criterion 3, "Fire Protection." Appendix R, Section III.G.2.b, specifies that (1) cables and equipment and associated non-safety circuits of redundant trains be separated by a horizontal distance of more than 20 feet with no intervening combustible or fire hazards, and (2) fire detectors and an automatic fire suppression system be installed in the fire area.

NMC's letter of November 17, 2003, as supplemented July 16, 2004, requested a permanent exemption from the Appendix R, Section III.G.2.b requirements for 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 Fire Area IX/Fire Zone 23A, the intake structure pump room. NMC had previously installed two additional emergency service water (ESW) pumps in this area, reducing the distance between Division II ESW pump P111D and intervening cable tray YT4 (containing combustibles) from approximately 20 feet to about 15 feet. The results of the NRC staff's evaluation of NMC's request are provided below.

3.0 DISCUSSION

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when (1) the exemptions are authorized by law, will not present an undue risk to public health and safety, and are consistent with the common defense and security; and (2) when special circumstances are present. Special circumstances exist if it is not necessary to apply the regulation in question in the particular circumstances identified to achieve the underlying purpose of the regulation. The underlying purpose of Appendix R, Section III.G.2.b to 10 CFR Part 50 is to assure that one train of redundant safe shutdown equipment will be maintained free of fire damage.

The NRC staff analyzed the following items in the intake structure pump room at MNGP to satisfy the requirements of 10 CFR 50.12 for granting the exemption from the automatic suppression system requirements of Appendix R, Section III.G.2.b:

- safe shutdown equipment
- fixed and transient combustibles
- chemical hazards

- existing fire protection features
- intervening combustibles
- impact of Regulatory Issue Summary (RIS) 2004-03, "Risk-Informed Approach for Post-Fire Safe-Shutdown Associated Circuit Inspections," dated March 2, 2004

Item C. 4, "Safe Shutdown Capability," in Enclosure 1 of NMC's letter of November 17, 2003, described the safe shutdown systems in the intake structure pump room at MNGP. NMC indicated that the ESW pumps contain no lubricating oil. ESW pumps P-111A and P-111B have greased bearings, while P-111C and P-111D have sealed bearings. NMC further clarified that power cables to the safe shutdown pump motors are routed in conduit for their full length within the zone with the exception of ESW pump P-111A. NMC indicated that this cable is routed in conduit along its north/south run and then in cable tray to the east as it exits the zone.

NMC's November 17, 2003, letter stated that fixed combustibles in the intake structure pump room at MNGP consist of lubricating oil in pumps and cable insulation with a total combustible load of approximately 12,000 British Thermal Units (Btus) per square foot. This is considered to be a low fire load. Additionally, NMC's letter said that lubricating oil accounts for about 57 percent of the total combustible load in the room. NMC specified the approximate lubricating oil volumes for motors located in the fire zone are as follows:

- 3 service water pump motors - 9 quarts each
- electric fire pump motor - 5 quarts
- screen wash/fire pump motor - 5 quarts
- 2 make-up pump motors - 7 quarts each
- 4 residual heat removal (RHR) service water (SW) pump motors - 13 gallons each
- 2 circulating water pump motors - 38 gallons each

NMC indicated that cabling within the exposed (without having top and bottom sheet metal covers) cable trays is low voltage power and control cabling. The majority of the cable does not meet Institute of Electrical and Electronics Engineers (IEEE) 383, "Standard for Qualifying

Class 1E Electric Cables and Field Splices for Nuclear Power Generating Stations," with regard to fire resistive properties. NMC mentioned that cable insulation accounts for approximately 38 percent of the combustibles in the zone. Figure 1 in NMC's letter of November 17, 2003, shows the layout of the cable trays. Two parallel cable trays (YT4 and YC3) span the zone from north to south at about the midpoint of the floor. Two stacked cable trays (YS4 and YB3) traverse east to west along the south end of the main floor. The stacked trays extend almost the entire width of the main floor and pass over Motor Control Center (MCC) 123/113 and the two fire pump control panels.

NMC's letter also mentioned that a 1-inch fuel-oil fill line to the diesel fire pump day tank is routed along the east wall of the main floor from the entry door to where it exits through the ceiling to the Diesel Fire Pump House. NMC indicated that this pipe is normally depressurized, isolated, and encapsulated in a 3-inch guard pipe within the main floor and access tunnel. Also, a flammable liquids storage cabinet is located in the vestibule.

NMC's November 17, 2003, letter stated that transient combustibles were controlled by procedure. Transient combustibles could consist of fiberglass ladders, paper, plastic, solvents and lubricating oil, etc. However, NMC has plant procedures to administratively control transient combustibles and potential hot work activities in this fire zone. The NRC's request for additional information (RAI) of June 15, 2004, asked NMC to clarify the type and quantity of transient combustibles allowed into Fire Zone 23A. NMC's July 16, 2004, RAI response disclosed that the transient combustible loading for Fire Zone 23A was the equivalent of two gallons of general-purpose solvent and three fiberglass ladders for a total of 1.28 million BTUs. This equates to about 310 BTUs per square foot.

To evaluate the presence of hazardous chemicals in the intake structure pump room at MNGP, the NRC staff's RAI of June 15, 2004, asked about sodium hypochlorite and the hazards that it might present in the room. NMC's July 16, 2004, RAI response indicated the following:

> Two chemicals may be present in the area: Sodium Hypochlorite and Sodium Bromide. Due to their diluted state, chemical properties, limited quantities and fire protection features provided, sodium hypochlorite and sodium bromide do not present a significant risk to the ability to contain and extinguish a potential fire in the Intake Structure Pump Room.
>
> Sodium Hypochlorite
>
> Sodium hypochlorite is provided in a 10 percent solution. The other ingredients comprising the solution are sodium chloride (7-8 percent), sodium hydroxide (0.5-2 percent) and the remainder is water. The sodium hypochlorite solution has a zero rating for flammability, which indicates that the material will not burn. The sodium hypochlorite solution has a reactivity rating of one, which indicates that the solution will be normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently. The Material Safety Data Sheet (MSDS) also rates sodium hypochlorite with a special symbol 'OX,' which indicates that sodium hypochlorite is an oxidizer. Oxidizers increase the burning rate of other materials and most if not all oxidizers can be rendered harmless by dilution with water.
>
> Sodium hypochlorite is known to decompose into a chlorine gas with temperatures above 850F. Since the sodium hypochlorite is provided in a water-based solution, it is reasonable to conclude that it will not react further with water. The MSDS does not indicate any adverse effects when mixed with lubricating oil or introduced to cable insulation/jacket materials.
>
> Sodium Bromide
>
> Sodium bromide is used to supplement the sodium hypochlorite addition in the summer. Sodium bromide is stable under normal conditions of use and storage. Sodium bromide is used in a 40 percent solution. The ingredients comprising the solution are sodium bromide (40 percent) and the remainder is water. The sodium bromide solution is rated a zero for flammability, which indicates that the material will not burn. The sodium bromide solution is rated a zero for reactivity, which indicates that the solution is normally stable, even under fire exposure conditions, and is not reactive with water. The MSDS does not indicate any adverse effects when mixed with lubricating oil or introduced to cable insulation/jacket materials. The sodium bromide solution is not considered an oxidizer.
>
> Chemical product is contained and limited to the covered drum and discharge piping in the room. The purpose of the drum is to collect spillage that may occur during chemical

injection, maintenance or cleaning activities. The drum does not provide bulk storage. A manually-operated, normally closed valve isolates the drum to preclude discharge to the drum, absent the activities discussed above. Therefore, typically, there is no liquid draining to the drum. Sodium hypochlorite and/or sodium bromide injection is only permitted for two hours per day, at most. Given that the drum containing the chemical(s) is located on the floor of the Intake Structure Pump Room near a floor drain, and that the cables in the area are in tray and conduit near the ceiling, the chemicals are not considered a hazard to the cables.

Transient combustibles are controlled as described in the response to NRC Request #3 [the NRC staff's RAI of June 15, 2004]. It is highly unlikely that transient combustibles would be brought into direct contact with the chemical solution. Therefore, the potential exposure of the chemicals to transient combustibles is very limited. In addition, evaluations are performed to ensure that the chemicals present in the Intake Structure Pump Room do not cause an adverse reaction with portable fire extinguishers. These evaluations consider the guidance of National Fire Protection Association (NFPA) 10, Standard for the Installation of Portable Fire Extinguishers for the hazards in the area.

Existing fire protection features in the intake structure pump room at MNGP include an automatic fire detection system consisting of spot thermal detectors located throughout the area and an automatic suppression pre-action sprinkler system designed to provide a water density of 0.30 gallons per minute per square foot. Furthermore, ionization smoke detectors are located under the shroud for each pair of RHRSW pumps, over the SW pumps/fire pump area, and in the vestibule area near the flammable liquids storage locker.

Item D. 3, "Intervening Combustibles," in Enclosure 1 of NMC's letter of November 17, 2003, discussed intervening combustibles in the intake structure pump room at MNGP. NMC mentioned that the safe shutdown divisions were separated by a minimum of approximately 25 feet between redundant divisions of ESW pumps. The following combustibles exist within the 25-foot horizontal separation zone between the two safe shutdown divisions:

- two SW pump motors
- electric fire pump motor
- screen wash/fire pump motor
- two make-up pump motors
- polyvinyl chloride (PVC) drain lines and drum
- two parallel north/south traveling horizontal cable trays (YT4 and YC3)
- two stacked east/west traveling horizontal cable trays (YS4 and YB3)
- MCC 123/113
- electric fire pump control panel C103

- screen wash/fire pump control panel C115
- circulating water control panel C101

NMC stated that the early warning ionization detector and the installed thermal detector-actuated automatic suppression system in the vicinity of the SW or fire pumps protection against the effects of postulated lube oil ignition from a pump motor leak. Sprinklers are installed along the entire row of pumps along the north wall of the fire zone. The smoke detector, or actuation of the suppression system via the thermal detection, alarm in the control room of MNGP and sprinkler activation will suppress the fire. NMC said that the make-up pumps are normally idle and have thermal detectors and sprinklers located near them. NMC remarked that the detection and suppression systems will act to prevent the fire spreading to redundant safe shutdown cables or components in the unlikely event that lube oil leaks from a motor and is involved in a fire.

NMC's letter of November 17, 2003, identified that PVC drain piping and a high-density polyethylene drum (associated with the sodium hypochlorite system equipment located on the roof of the intake structure) are located near stacked cable trays YS4 and YB3, MCC 123/113, and the electric fire pump control panel. NMC indicated the PVC piping will be replaced with non-combustible piping and the drum will either be relocated outside the separation zone or be replaced with a non-combustible container.

In the same letter, NMC discussed cable insulation in the intake structure pump room at MNGP as follows:

> As previously noted, cable insulation comprises approximately 38 percent of the combustible load in this fire zone. The cabling of concern is contained in the parallel north/south running trays YT4 and YC3, and east/west running trays YS4 and YB3. Cable in these trays is typically not IEEE-383 qualified with regard to fire resistive properties. The heaviest loading of the cable trays is where they meet at a "T" configuration. The concentration of cable loading diminishes toward the north and west ends of the cable trays. It is important to note the light loading at the west end of trays YS4 and YB3 as the fire propagation concern for this zone is in the east/west direction.

The horizontal separation between ESW pump P-111 D and tray YT4 is approximately 15 feet. Two rows of sprinklers interpose between the ESW pump and the cable tray. Thermal detectors also exist in the vicinity of the cable tray. In addition, any fire that may involve the cable tray and propagate along its length would travel north/south. Given that the critical propagation distance is east/west, sprinklers interpose the separation distance to the ESW pump and thermal detection is in proximity of trays YT4 and YC3, they do not pose a threat to the Division II shutdown equipment.

Stacked cable trays YS4 and YB3 travel east/west traversing almost the entire zone. On the east side of the tray runs, the ESW pump P-111A power cable is routed in tray. On the west side, the trays do not contain any safe shutdown related cables. However, they terminate in close proximity to safe shutdown Division II conduits. The trays run above MCC 123/113, and both fire pump panels. These trays are of concern since they travel east/west, which is the critical fire propagation direction. A line of sprinklers in close proximity to the trays runs east/west along the entire length. In addition, thermal detection also exists in close proximity of the trays.

Cable trays YS4 and YB3 will each be enclosed on the top and bottom with sheet metal from the point of the electric fire pump control panel (C103) west to the end of the trays. This will minimize the risk that cables in these trays present as intervening combustibles. The fire stop at the west end of the trays will be removed and the trays will be enclosed with sheet metal on the west end. The east end above the electric fire pump control panel will remain open. The annular gap around commodities penetrating the tray covers will be covered with a mastic type material, fire resistive caulk, or metal tape as appropriate. The solid sides of the trays will make-up the remainder of each enclosure.

Fire tests sponsored by the NRC documented in NUREG/CR-0381, "A Preliminary Report on Fire Protection Research Program Fire Barriers and Fire Retardant Coatings Test," indicate that solid metal barriers offer a measure of protection to cables. Non-IEEE 383 qualified cables in stacked trays with solid bottoms, or solid bottoms with vented top covers, or solid top covers with no bottom cover required more than one burner ignition cycle to initiate fire in the trays. In no case did fire propagate from the lower cable tray to the upper cable tray. Therefore, providing top and bottom covers for the noted trays will reduce the potential for ignition of, and subsequent flame spread along, cables contained within.

NRC generic letter (GL) 86-10, Enclosure 2, Section 3.6, identifies that cables in enclosed trays should be considered as intervening combustibles. It further states:

> *"However, cables coated with a fire retardant material, or cables in cable trays having solid sheet metal bottom, sides and top, if protected by automatic fire detection and suppression systems, and if the design is supported by a fire hazards analysis, have been found acceptable under the exemption process."*

The loading of trays YS4 and YB3 significantly diminishes toward the west end. Therefore, any potential fire that may involve these cable trays will significantly diminish if it travels west. The sheet metal covers will also serve to limit the intensity of a potential fire. The covers in conjunction with the diminishing cable concentration as the trays travel west, along with the thermal detection and automatic suppression assure

that any fire involving the trays will be detected, contained and suppressed by the noted fire protection features prior to becoming a threat to safe shutdown Division II cables.

The analysis provided within this exemption request serves to provide the aforementioned fire hazards analysis identified in GL 86-10 above.

NMC's letter of November 17, 2003, also identified several electrical cabinets as being intervening combustibles. MCC 123/113 is located between redundant shutdown cables. NMC said this non-vital MCC supplies loads within the intake structure. Electric fire pump control panel, C103, attaches to the MCC on its west side. NMC indicated that the nearest Division II safe shutdown conduits on the west side of the main pump room floor are approximately 14 feet away while the nearest Division I safe shutdown conduit is about 5 feet southeast of the east end of the MCC. Sprinklers and thermal detectors are located near to the MCC and panel C103. NMC said the electric fire pump does not normally run because either the jockey pump or screen wash/fire pump maintains fire system pressure. NMC stated that a fire originating within either panel C103 or MCC 123/113 would be due to an electrical fault. Electrical circuit protection would interrupt the fault. NMC further explained that the automatic suppression system would contain a fire of significance in the unlikely event it developed and breached the panel or MCC confines. Screen wash/fire pump control panel C115 is installed between the electric fire pump control panel C103 (approx. 8.5 feet) and the Division II safe shutdown cables (approx. 5.5 feet horizontally). It is approximately 24 feet from the nearest Division I safe shutdown cable. The screen wash/fire pump may be running because it is used to remove debris from the traveling screens when the plant is operating. As with panel C103 and MCC 123/113, thermal detectors and sprinklers are located nearby. A fire that originated within Panel C115 would be due to an electrical fault, electrical circuit protection would interrupt the fault, and the automatic suppression system would contain the fire. For circulating water panel C101, NMC said it measures 5 feet by 2 feet by 7 feet and contains low-voltage instrumentation and wiring. The front face of the panel is solid except for annunciator windows, gauges,

electrical control switches, etc. The rear of the panel contains two normally closed doors with small louvers near the top of each. Similar to the previously discussed panels and MCCs, thermal detectors and sprinklers exist nearby. NMC does not consider it to be a hazard given the low voltage circuitry within the panel, its "closed" construction, and the nearby detectors and sprinklers.

NRC RIS 2004-03 gives information on using a risk-informed approach for post-fire safe-shutdown associated circuit inspections. Although the NRC does not plan to implement the RIS criteria until December 2004, NMC's RAI response of July 16, 2004, said that NMC used the criteria as a guideline in its ongoing safe shutdown cable validation effort. As a result, NMC determined that a potential cable-to-cable short circuit of select wires within a common conduit routed in the intake structure pump room was feasible when considering the NRC cable failure modes described in the RIS. The potential fire-induced short within the subject conduit without grounding was not previously considered as part of the associated circuit analysis. The cables involved are associated with the Division I RHR SW pump motor cooling water valves (SV-4937A and SV-4937C) that fail open on loss of power. The two Division I cables are contained in a common conduit that transits the main pump room floor in close proximity to the Division II RHR SW pump motors and other Division II components and cables. The postulated short circuit within the conduit results in spurious closure of one valve to one pump motor. NMC's RAI response of July 16, 2004, contains more details about this. To alleviate this concern, NMC said it would re-route the cables consistent with existing divisional wiring separation criteria (greater than 20 feet of separation between redundant safe shutdown components and cables) identified in the exemption request.

NMC's commitments from its letters of November 17, 2003, and July 16, 2004, follow:

- Drain piping constructed of polyvinyl chloride and a high-density polyethylene drum located in Fire Area IX/Fire Zone 23A will be eliminated as intervening combustibles.

- Cable trays YS4 and YB3 located in Fire Area IX/Fire Zone 23A will be individually covered with sheet metal on top and bottom from the electric fire pump control panel (C103) west to the end of the trays.

- The Division I cables associated with the RHR SW pump motor cooling water valves (SV-4937A and SV-4937C) will be re-routed within the Intake Structure Pump room to provide adequate separation from Division II RHR SW components and cables consistent with the exemption request.

NMC indicated in its letters that it would complete these commitments by the end of the next refueling outage after approval of the exemption request.

The NRC staff evaluated NMC's request for exemption considering the following:

- safe shutdown equipment affected
- type, amount, and location of the fixed combustible loading
- amount of the transient combustible loading
- nature of the intervening combustibles
- chemical hazards in the room
- automatic fire detection and automatic fire suppression in the area

The NRC staff reviewed the safe shutdown equipment discussion provided by NMC. NMC has committed to reroute the Division I cables associated with the RHR SW pump motor cooling water valves (SV-4937A and SV-4937C) within the intake structure pump room to provide adequate separation from Division II RHR SW components and cables consistent with the exemption request. It is the staff's understanding that this modification will place the Division 1 RHR SW pump motor cooling water valve cables in a single conduit. Granting of this exemption for intervening combustibles does not relieve NMC of the necessity of addressing the Division I and Division II RHR SW pump motor cooling water valve circuits as "associated circuits."

The NRC staff evaluated the fixed liquid combustibles by considering the quantity and amount of lubricating oil, located in each pump sump. The quantities are typical for the pumps

involved, and normally are contained within the sump. The lubricating oil used is usually of a very high flashpoint and very difficult to ignite. Drains serve to also limit the spread of liquid combustibles. The solid fixed combustibles, consisting primarily of non-IEEE-383 rated cable insulation placed in cable trays, are used for low-voltage power and control functions. NMC committed to modify cable trays YS4 and YB3 to individually covered them with sheet metal on top and bottom from the electric fire pump control panel (C103) west to the end of the trays, which will further reduce the possibility of occurrence of a fire propagating so as to affect both trains. Overall, the fixed combustibles present a low fire load. The NRC staff evaluated the transient combustibles, which are administratively controlled to a quantity consisting of 2 gallons of general-purpose solvent and three fiberglass ladders. This amount presents a very small combustible load. Drains serve to also limit the spread of liquid combustibles. The NRC staff is satisfied that fixed and transient combustibles are minimal. The staff reviewed the intervening combustibles as part of the overall fixed combustibles review.

The NRC staff reviewed NMC's response to the RAI concerning hazardous chemicals within the pump room. NRC staff reviewed Material Safety Data Sheets for both sodium hypochlorite and sodium bromide, and concurs with NMC's assessment. Further, NMC has committed to eliminate PVC drain piping and the high-density polyethylene drum as intervening combustibles.

The automatic fire detection system has both area-wide thermal detectors and hazard-specific ionization smoke detectors. This system meets or exceeds the fire protection requirements of Appendix R, Section III.G.2.b. The area-wide automatic pre-action sprinkler system delivers a design density of at least 0.30 gallons per minute per square foot. This system meets or exceeds the fire protection requirements of Appendix R, Section III.G.2.b for the lubricating oil, cable trays, and transient combustible hazards present. In particular, the design water density is substantially greater than the minimum density called for by NFPA - 13,

"Standard for the Installation of Sprinklers," for the type and configuration of intervening combustibles.

In summary, the following attributes of the area support a basis for approval of the requested exemption:

- Greater than 20 feet of separation exists between redundant safe shutdown components and cables.
- Early-warning ionization detection, installed above the RHR SW and SW pumps, provides an alarm to the control room.
- Activation of the pre-action valve via the thermal detectors results in a "system actuated" signal to the control room.
- Transient combustibles and hot work in the area are administratively controlled.
- The fire load in the zone satisfies the criteria for a low fire load designation.

Based upon the above evaluation, the NRC staff concludes that the requested exemption for Fire Area IX/Fire Zone 23A, the intake structure pump room, provides reasonable assurance that one train of redundant safe shutdown equipment will remain free of fire damage. This is the equivalent of meeting the requirements of 10 CFR Part 50, Appendix R, Section III.G.2.b, since the underlying purpose of Section III.G.2.b is to assure that one train of redundant safe shutdown equipment will be maintained free of fire damage. Therefore, the NRC staff concludes that pursuant to 10 CFR 50.12(a)(2)(ii), special circumstances are present as application of the regulation in these particular circumstances is not necessary to achieve the underlying purpose of the rule. Consequently, NMC's exemption request is acceptable.

4.0 CONCLUSION

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are

present. Therefore, the Commission hereby grants NMC a permanent exemption from the requirements of 10 CFR Part 50, Appendix R, Section III.G.2.b, for separation of redundant trains with no intervening combustible or fire hazards as it applies to Fire Area IX/Fire Zone 23A.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment (69 FR 62307).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 28th day of October.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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