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NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

PPR

June 22, 1978

Director
Office of Nuclear Reactor Regulation
U S Nuclear Regulatory Commission
Washington, DC 20555

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket No. 50-282 License No. DPR-42
50-306 DPR-60

Nuclear Plant Fire Brigade Requirements

In letters dated May 26, 1978 and June 5, 1978 from Mr Victor Stello, Director, Division of Operating Reactors, Northern States Power Company was requested to review a document entitled, "Manpower Requirements for Operating Reactors" and to inform the Commission Staff within twenty days if we continue to object to their position on minimum fire brigade size. "Manpower Requirements for Operating Reactors" requires a fire brigade of at least five members and permits up to three members of the security organization to serve on the fire brigade.

In letters dated December 16, 1978 and December 22, 1978, Northern States Power Company took objection to the requirement for a continuous five-man fire brigade. In these letters, we provided a detailed analysis of the requirements placed on our nuclear plant fire brigades and supplied justification for a three-man brigade. We continue to believe that a three-man fire brigade is sufficient. Increasing the size of the fire brigade to five individuals on a continuous basis through the use of two more security personnel would greatly increase the training requirements placed on the guard force. Since our guards are provided by a contractor, this training would be impractical to conduct. It may be acceptable, however, to augment fully trained members of the fire brigade with security personnel to assist in support activities such as communications, obtaining equipment, filling air cylinders, and other tasks not requiring the complete training program the Commission Staff has outlined for regular fire brigade members.

Our philosophy for protection against fires is that of defense in depth; that is, fire prevention, prompt detection and extinguishment, and provisions for minimizing the effects of fires. All of these principles have been applied at our facilities. Fire brigades deal with the extinguishment of fires that are not automatically coped with. In this regard detection systems are installed and frequent plant inspections are made so that any fire would be detected at its

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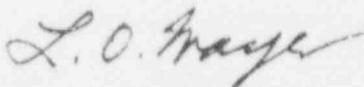
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inception. In certain plant areas automatic systems are actuated to extinguish any fires that are detected. In other areas, initial reliance may be placed on the use of manually actuated systems. In addition, it has been recognized that a back-up manually operated water fire extinguishing system could be required. The number of persons required to operate this manual water fire extinguishing system establishes the minimum size of the fire brigade. Should a fire occur, the location would be identified by an operator or by the fire detection system. Use of water hoses would require at least two persons to don breathing apparatus, if needed, and enter the area. Since the fire hoses are permanently installed, do not utilize solid streams, and are of a size (1½ inch) that one person could handle, the prime reason for two persons to enter the area is for personnel safety. In the case of trained persons entering an environment they are familiar with and know beforehand the potential for danger, there is no need to have a separate "fire supervisor" at the scene to observe and direct their efforts. This is not to say that one individual should not be in charge of the fire fighting efforts, rather it is to emphasize that when two trained individuals enter an area to fight a fire their initial efforts should be set by their understanding of the potential nature of the fire and their training to respond. After the initial two-man response it may be desirable to augment the efforts at the scene by another individual who may be the supervisor or person who relays information from the scene to the supervisor. Since all equipment utilized in the initial phases of fire fighting is pre-installed and breathing apparatus requirements are to have at least two spare tanks available, we are of the opinion that additional dedicated fire fighting personnel are not required.

Our current Technical Specifications require a fire brigade of at least three members to be on site at all times in addition to the minimum number of individuals required to safely shut down the reactors from outside the control room. When the probability of fire is significant, such as during normal working hours while operating and during refueling outages, the number of individuals able to respond to a fire exceeds the recommended five. We believe current requirements on fire brigade size are adequate and no change in the Technical Specification requirements are necessary. We will be available to discuss this issue in detail during the site fire protection inspections planned for later this year.



L O Mayer, PE
Manager of Nuclear Support Services

LOM/DMM/ak

cc: Dir IE-III
G Charnoff