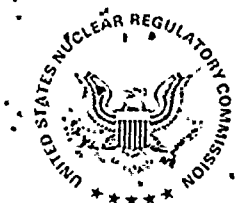


UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 79 TO FACILITY OPERATING LICENSE NO. DPR-58
AND AMENDMENT NO. 61 TO FACILITY OPERATING LICENSE NO. DPR-74
INDIANA AND MICHIGAN ELECTRIC COMPANY
DONALD C. COOK NUCLEAR PLANT UNIT NOS. 1 AND 2
DOCKET NOS. 50-315 AND 50-316

Introduction

By letter dated August 2, 1982, the Indiana and Michigan Electric Company (IMEC), the licensee, submitted proposed amendments to the Operating Licenses for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The amendments would update the Technical Specifications for fire protection systems to incorporate the wording of the current Standardized Technical Specifications for Westinghouse plants and to substitute the use of the closed circuit television in the lower containment in place of continuous fire watch whenever the reactor coolant pump sprinklers were inoperable.

Evaluation

Fire Detection Instrumentation and Table 3.3-10

The proposed changes would distinguish between those systems which are inside containment and inaccessible during operation and those outside containment. The Standard Technical Specifications (STS) recognize action statements and surveillance requirements which have been reviewed by the staff and found acceptable. The proposed changes are consistent with the STS, that is, a fire inspection each 8 hour inside containment and an hourly monitor of containment temperature monitors will replace the requirement for hourly patrols inside containment. The instrumentation which is accessible during operation will continue to be tested on a six month basis. Instrumentation not accessible will be tested at cold shutdowns exceeding 24 hours unless performed in the previous six months. We find these changes acceptable.

Table 3.3-10 has been changed to delete reference to zones. The correct terminology at Cook would be "quadrants" and the revised Technical Specifications reflect this correction as well as the separation of inside/outside instruments and identification of shared systems by Unit 1 and Unit 2. A footnote has been added to account for instruments inside containment not required to be operable during Type A leak rate tests.

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During the pressurization of the containment for the Type A leak test, all incidental sources of heat are turned off to simplify calculations needed to support the tests. The fire detector instrumentation inside containment does provide a small heat source which could effect the small volume of air inside the ice condenser containment. Since the Type A tests are done during shutdown and the time that the detector instrumentation is inoperable is small, we agree that the detectors may be inoperable for the tests and this footnote on the Technical Specifications is acceptable.

Fire Suppression Systems

Portions of the action statements have been rearranged for clarity and moved to the surveillance requirements where appropriate, i.e., 160 gallons in the fuel storage tank is a value to be checked during surveillance. The surveillance on the fire pump diesel is now defined to include a 30 minute test on recirculation flow rather than an undefined test for 20 minutes. The 18 month test to start the diesel and run for 20 minutes has been deleted since it is duplicative with the above test on recirculation flow for 30 minutes. These changes are acceptable.

Spray and/or Sprinkler Systems

Aside from the point of clarity in the action statement regarding areas where redundant safe shutdown system or components could be changed, the major change in this Technical Specification relates to the proposed use of the closed circuit television (TV) in the lower containment in lieu of an hourly fire watch patrol. The spray and/or sprinkler system provides a backup to the detection system; a fire can be detected by the detection system or actuation of the sprays. In the lower containment and specifically in the reactor coolant pump area, a closed circuit TV system is used to periodically check the external conditions of the pump. If the spray system fails in this area, the detection system would still be available but an hourly fire watch patrol here would subject personnel to high radiation areas unnecessarily. The TV would show either a clear room or no picture due to a TV failure or a smoke filled room. With loss of the TV picture, someone would be dispatched to check the area. The staff's concern was with the limited viewing area of the TV, however, a review of the area reveals that should a fire occur, it would be caused by an oil spill from the reactors coolant pump and an oil fire with thick smoke. If there is an oil spill, the pump will no longer be operational and the licensee has stated that there are no other safety related components or systems in that area. The smoke from the oil fire would appear on the TV screen as no picture, someone would be dispatched to check the area, and even though there was a fire in the area, nothing else significant would be lost due to the fire. The staff, therefore, concludes that the TV is an acceptable alternative to the spray as a backup detection system for this area. The available backup fire suppression equipment is sufficient to fight a fire in this area should the spray be inoperable and a fire occur. The proposed change to the Technical Specifications is acceptable.

Loss Pressure CO₂ Systems and Table 3.7-6

License Amendment No. 68/50 issued on February 7, 1983 adequately resolved the proposed changes to the Technical Specification on low pressure CO₂ system. No further action is required here. In table 3.7-6, the licensee proposes to add infrared to a number of areas as a means of actuation of low pressure CO₂ system. This is acceptable.

Halon Systems

The proposed changes involve moving the storage weight and pressure to the surveillance requirements and clarifying the requirement that verification of the fire detection system and backup CO₂ suppression system is to be made within 1 hour. The licensee has also proposed to add a CO₂ puff test as an option to assuring no blockage through headers and nozzles. The requirement is to assure no blockage in the halon system by a test at least once per 18 months and if by air flow or CO₂ puff, the licensee can show no blockage, the requirement will be met. These changes are acceptable.

Fire Hose Stations

The proposed change would differentiate between the re-routing of fire hoses where the hose was the primary or backup suppression means. The 1 hour remains for re-routing where the hose is the primary means but would now allow 24 hours if the hose was the secondary means. The special report and this differentiates between primary and backup means is consistent with current staff requirements and the STS. We find these changes acceptable.

Fire Rated Assemblies

The licensee proposes to replace the Technical Specification on Penetration Fire Barriers with a specification on Fire Rated Assemblies on the basis that the new specification covers all provisions in the old Technical Specifications and is more prescriptive. In our discussion with the licensee we proposed adding to the new specification reference to cable tray enclosures and ventilation seals. Some of these enclosures are being added in the plant by the licensee and are to be covered by the Technical Specification as they are declared operable by plant management. The proposed wording of the new Technical Specification, with the appropriate addition of cable tray enclosure and ventilation seals, is consistent with current staff requirement and the STS. We find the revised Technical Specifications acceptable.

Technical Specification Bases-Fire Rated Assemblies

In discussion with the licensee it was agreed that the proposed bases should be supplemented with the definition that the ventilation seals are seals around ventilation duct work penetrating fire barriers. This is acceptable.

Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 16, 1984

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