UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 62 TO FACILITY OPERATING LICENSE NO. DPR-18

ROCHESTER GAS AND ELECTRIC CORPORATION

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION

By letter dated February 9, 1996, as supplemented by letter on March 20, 1996, the Rochester Gas and Electric Corporation (the licensee) submitted a request for changes to the R. E. Ginna Nuclear Power Plant Technical Specifications (TSs).

The requested changes would change Technical Specification (TS) 3.9.3 by allowing the licensee to use an retractable overhead door to satisfy closure requirements for the containment equipment hatch during core alterations or movement of irradiated fuel movement in containment. The retractable door is functionally equivalent to the closure plate that is currently required by TS 3.9.3. The March 20, 1996, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The Ginna nuclear power plant is a two-loop Westinghouse Pressurized Water Reactor (PWR). Limiting Condition for Operation (LCO) 3.9.3.a states that during core alterations or movement of irradiated fuel within containment, the equipment hatch shall be bolted in place with at least one access door closed, or isolated by a closure plate that restricts air flow from containment. The licensee indicates in its submittal that since the overhead door can be opened and closed more quickly compared to the time required for removal and installation of the closure plate, use of the overhead door would expedite activities conducted during plant shutdown; e.g., movement of equipment into and out of containment. The licensee has therefore proposed to amend LCO 3.9.3.a and its associated Bases to allow use of an overhead retractable door to satisfy containment equipment hatch closure requirements applicable during refueling operations. The change would be effected by adding a third closure option under action statement 3.9.3.a. Note that this change does not alter in any way the requirement that the equipment hatch opening must be closed during irradiated fuel movement or core alterations.

The Bases of Westinghouse Standard Technical Specification (STS) 3.9.3, under which Ginna is licensed, indicate that the intent of the specification is to

provide a leak resistant barrier such that air flow from containment is restricted under postulated fuel handling accidents. Since the Bases consider the potential for containment pressurization as the result of an accident an unlikely event during refueling activities, the STS do not necessarily require that barriers used for containment closure be pressure resistant.

The overhead door proposed is a steel roll-up type composed of hinged panels and capable of motorized or manual operation. It is attached to a non-pressure rated reinforced concrete enclosure built around the equipment hatch opening outside of containment. The door moves on a track attached to the enclosure and when opened, retracts into the enclosure to lie horizontally in the track.

In teleconferences held on March 13 and 14, 1996, the licensee stated that weather-stripping or steel bristle brushes attached to the enclosure and which rub against the edge of the door provide a leak resistant barrier under conditions of zero or essentially zero differential pressures across the seal, and that sealing between the individual panels which compose the door is accomplished by the interlocking fashion by which the panels fit together. The licensee further stated that the sealing mechanisms are not considered pressure barriers, and that the door itself is not pressure rated. The licensee indicated that the door would not significantly hinder the replacement of the equipment hatch if this action became necessary. Replacement of the hatch would take approximately 2 hours.

Based on the leak-resistance of the door, the NRC staff finds that the overhead door performs the same function as the closure plate in that it restricts air flow from containment, and therefore satisfies the intent of the containment closure requirements as stated in the Bases for STS 3.9.3. It is not the explicit intent of the STS that the closure device be pressure resistant, so while the overhead door does not constitute a pressure resistant barrier, no inconsistency exists between use of the door and the intent of the STS. This interpretation of the TS is consistent with past TS amendments that approved alternate means of providing closure for containment penetrations during refueling.

The NRC staff finds that use of the overhead door in lieu of the closure plate would not remove any function served by the closure plate. The purpose of both is to prevent leakage from containment. The design of the door is also sufficiently robust such that the door can be reasonably expected to maintain its structural integrity and to perform its function reliably. Finally, the staff finds that based, on information provided by the licensee, use of the overhead door would not hinder replacement of the equipment hatch if such action were deemed necessary.

However, the staff points out that at the time this evaluation was written, draft rule 10 CFR 50.67, "Shutdown Operation of Nuclear Power Plants," was being developed. Studies leading to development of the rule indicate that certain accident scenarios during shutdown may result in containment pressurization. While it is still uncertain as to whether or how containment

pressurization events would be incorporated into the final rule, it is important to note that such events are being considered. The rule could therefore place greater emphasis on the pressure resistance of containment closure devices than do current requirements. In light of this and the pressure-resistant characteristics of the overhead door, the licensee should be aware that use of the door may need to be reevaluated by NRC staff if new requirements involving shutdown operations are implemented.

On the bases that the overhead door provides a leak resistant barrier and therefore meets the intent of STS 3.9.3, and because use of the door would not hinder replacement of the equipment hatch cover if this became necessary, the staff finds the proposed change acceptable. However, the staff reiterates that if new requirements regarding shutdown operations become effective, then use of the overhead door may need to be reevaluated against such requirements.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (61 FR 7557). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: April 1, 1996