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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 72 TO PROVISIONAL OPERATING LICENSE NO. DPR-16

GPU NUCLEAR CORPORATION AND

JERSEY CENTRAL POWER & LIGHT COMPANY

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

By letter dated March 31, 1983, GPU Nuclear Corporation (GPU) (the licensee) requested an amendment to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment would authorize changes to the Technical Specifications pertaining to operability of the isolation valves for the isolation condensers.

A Notice of Consideration of Issuance of Amendment and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action was published in the Federal Register on November 22, 1983 (48 FR 52814). A request for hearing and public comments were not received.

2.0 DISCUSSION AND EVALUATION

The proposed Technical Specification changes would clarify the existing Technical Specifications, and permit an acceptable out-of-service time for the isolation valves for routine maintenance while keeping the affected isolation condenser operable to perform its intended function. During 1982, an enforcement issue, which was attributed to lack of clarity in the Technical Specifications (TS) for the isolation condensers, developed at Oyster Creek. In NRC Inspection Report 50-219/82-22, dated December 7, 1982, GPU was cited for violation of TS 3.1A, Table 3.1.1.H and 3.8 which require that an operable trip system be available to cause isolation of an isolation condenser during power operation when reactor water temperature is above 212°F. As noted in a letter from NRC Region I to GPU dated December 3, 1981, NRC Inspection Report 50-219/82-22 reported that on September 27, 1982, the isolation trip system for isolation condenser "B" was not capable of closing one of the two redundant valves (valve V-14-32) in the inlet steam line for 6 hours. The valve had been electrically defeated in the open position while packing was added. For isolation condenser "A", a similar condition existed for 8 hours on September 29, 1982 when packing was added to inlet steamline valve V-14-31. The interpretation of the existing specifications would have required that the affected isolation condensers be declared inoperable and valved off during these times.

In a letter dated January 7, 1983 GPU did not take exception to this violation. They did, however, question the intent of the specification for the isolation condensers and stated their plans to submit a Technical Specification Change Request to clarify the issue. On March 31, 1983, GPU submitted a Technical Specification Change Request to clarify the existing specifications, and to permit an acceptable out-of-service time for applicable isolation condenser isolation valves for routine valve maintenance while maintaining the affected isolation condenser operable to perform its intended function. A note added to Table 3.1.1.4 addresses isolation valve operability and references the limiting conditions for operation in Section 3.8.

The added specifications, 3.8.E and 3.8.F are discussed in an addition to the bases for Section 3.8.

Specification 3.8.E is proposed to allow a maximum out-of-service time of four hours for an isolation condenser inlet (steam side) isolation valve providing the redundant valve is tested operable. Specification 3.8.F is proposed to allow a four hour out-of-service time for the AC motor-operated outlet isolation valve located within the drywell. Upon initiation of the IC the normally closed DC motor-operated condensate return line isolation valve opens, concurrent with the closing of the IC vent lines. This valve is operability tested once a month together with the other isolation valves, vent valves and condensate (to condenser shell side) make-up valve. Inoperability of the normally closed DC outlet valve renders the isolation condenser inoperable because the valve will open on an initiation signal. For this reason allowable out-of-service time for the DC outlet valve is not appropriate. In the case of the steam side valves, Specification 3.8.E would require the redundant valve to be tested for operability (i.e., stroked) prior to maintenance activity proceeding on the other valve. This ensures isolation capability. In the case of the condensate line valves (Specification 3.8.F) the outside containment DC powered valve is closed during normal operation so the need to ensure isolation capability by cycling is not necessary as the valve is already closed. The DC powered condensate line valve receives the initiation signal and opens to actuate the isolation condenser. If this valve were to become inoperable, it would render its associated isolation condenser inoperable. Therefore, specifications to allow inoperability of the DC powered condensate line valve are not proposed.

Oyster Creek has two full capacity isolation condensers, each capable of removing about 3% of rated power (equivalent to decay heat load at about 5 minutes after scram). Piping and valves connecting to the reactor allow each condenser to function independently. The steam line from the reactor to each condenser contains two isolation valves which are normally open. The condensate return line from each condenser to the reactor contains two isolation valves, one normally open and one normally closed. The system, which operates under natural circulation conditions, is actuated by opening the normally closed valve in the condensate return line. High flow in either the inlet or return lines for a given condenser results in closure signals to all the isolation valves for that condenser. The operability of

the isolation valves for the isolation condensers affects the availability of the system for its intended heat removal function and affects the system isolation capability in the event of a system break. In view of the low probability of a system break, the system redundancy and the short time periods involved in valve maintenance, the specification changes result in a negligible increase in risk due to failure to isolate. A slight decrease in risk is expected because of the increase in system availability during routine valve maintenance.

Although the condensers and their associated piping are part of the reactor coolant pressure boundary and the piping penetrates primary containment, the isolation valves do not receive containment isolation signals. The proposed four hour maximum out-of-service time, however, was chosen by the licensee to be consistent with that permitted for containment isolation valves.

The staff has reviewed the proposed technical specification change request and the results of the supporting analysis and conclude that the proposed action does not involve a reduction in a margin of safety. Based on the above, the staff finds the proposed technical specification change acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The staff has determined that the amendment does 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, the staff has further concluded that the amendment involves 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 this amendment.

4.0 CONCLUSION

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

5.0 ACKNOWLEDGEMENT

This evaluation was prepared by C. Graves.

Dated: February 6, 1984