

October 12, 1988

Docket No. 50-219

Mr. E. E. Fitzpatrick
Vice President and Director
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Fitzpatrick:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 68496)

The Commission has issued the enclosed Amendment No.128 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated June 21, 1988.

The amendment deletes the requirement for a daily exercise of the Main Steam Isolation Valves (MSIV's). Specifically these changes are (1) Section 4.5.I.3.a of the Technical Specifications (TS) has been deleted and Section 4.5.I.3.b of the TS has been incorporated in Section 4.5.I.3 of the TS and (2) the bases for MSIV Testing has been revised to reflect the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, 1974 edition with winter 1973 addendum.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

Original signed by

Alexander W. Dromerick, Project Manager
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No.128 to DPR-16
- 2. Safety Evaluation

cc w/enclosures:

See next page

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Mr. E. E. Fitzpatrick
Oyster Creek Nuclear Generating Station

Oyster Creek Nuclear
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

GPU NUCLEAR CORPORATION

AND

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 128
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by GPU Nuclear Corporation, et al., (the licensee), dated June 21, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

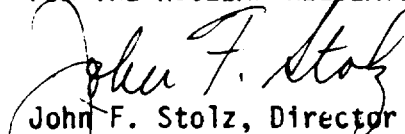
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Provisional Operating License No. DPR-16 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 128, are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate 1-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Attachment:
Charges to the Technical
Specifications

Date of Issuance: October 12, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 128

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

Page 4.5-4

Page 4.5-13

Insert

Page 4.5-4

Page 4.5-13

I. Functional Test of Valves

1. All containment isolation valves specified in Table 3.5.2 shall be tested for automatic closure by an isolation signal during each refueling outage. The following valves are required to close in the time specified below:

Main steam line isolation valves	≥ 3 sec and ≤ 10 sec.
Isolation condenser isolation valves	≤ 60 sec.
Cleanup system isolation valves	≤ 60 sec.
Cleanup auxiliary pumps system isolation valves	≤ 60 sec.
Shutdown system isolation valves	≤ 60 sec.

2. Each containment isolation valve shown in Table 3.5.2 shall be demonstrated operable prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator by cycling the valve through at least one complete cycle of full travel and verifying the specified isolating time. Following maintenance, repair or replacement work on the control or power circuit for the valves shown in Table 3.5.2, the affected component shall be tested to assure it will perform its intended function in the circuit.
3. Quarterly, during periods of sustained power operation, each main steam isolation valve shall be closed (one at a time) and its closure time verified to be within the limits of specification 4.5.I.1 above. Such testing shall be conducted with reactor power not greater than 50% of rated power.
4. Reactor Building to Suppression Chamber Vacuum Breakers
 - a. The reactor building to suppression chamber vacuum breakers and associated instrumentation, including setpoint, shall be checked for proper operation every three months.
 - b. During each refueling outage each vacuum breaker shall be tested to determine that the force required to open the vacuum breaker from closed to fully open does not exceed the force specified in Specification 3.5.A.3.a. The air-operated vacuum breaker instrumentation shall be calibrated during each refueling outage.

Since the main steam line isolation valves are normally in the open position, more frequent testing is specified. Per ASME Boiler and Pressure Vessel code, section XI, the quarterly full closure test will ensure operability and provide assurance that the valves maintain the required closing time. The minimum time of 3 seconds is based on the transient analysis of the isolation valve closure that shows the pressure peak 76 psig below the lowest safety valve setting. The maximum time of 10 seconds is based on the value assumed for the main steam line break dose calculations.

Surveillance of the suppression chamber-reactor building vacuum breakers consists of operability checks and leakage tests (conducted as part of the containment leak - tightness tests). These vacuum breakers are normally in the closed position and open only during tests or an accident condition. As a result, a testing frequency of three months for operability is considered justified for this equipment. Inspections and calibrations are performed during the refueling outages, this frequency being based on equipment quality, experience, and engineering judgment.

The fourteen suppression chamber-drywell vacuum relief valves are designed to open to the full open position (the position that curtain area is equivalent to valve bore) with a force equivalent to a 0.5 psi differential acting on the suppression chamber face of the valve disk. This opening specification assures that the design limit of 2.0 psid between the drywell and external environment is not exceeded. Once each refueling outage each valve is tested to assure that it will open fully in response to a force less than that specified. Also it is inspected to assure that it closes freely and operates properly.

The containment design has been examined to establish the allowable bypass area between the drywell and suppression chamber as 10.5 in.² (expressed as vacuum breaker open area). This is equivalent to one vacuum breaker disk off its seat 0.371 inch; this length corresponds to an angular displacement of 1.25°. A conservative allowance of 0.10 inch has been selected as the maximum permissible valve opening. Valve closure within this limit may be determined by light indication from two independent position detection and indication systems. Either system provides a control room alarm for a non-seated valve.

At the end of each refueling cycle, a leak rate test shall be performed to verify that significant leakage flow paths do not exist between the drywell and suppression chamber. The drywell pressure will be increased by at least 1 psi with respect to the suppression chamber pressure. The pressure transient (if any) will be monitored with a sensitive pressure gauge. If the drywell pressure cannot be increased by 1 psi over the suppression chamber pressure it would be because a significant leakage path exists; in this event the leakage source will be identified and eliminated before power operation is resumed. If the drywell pressure can be increased by 1 psi over the suppression chamber the rate of change of the suppression chamber pressure must not exceed a rate equivalent to the rate of air flow from the drywell



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 128

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 June 21, 1988, GPU Nuclear Corporation (GPUN or licensee) requested an amendment to the Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. The proposed amendment would delete the requirement for a daily exercise of the Main Steam Isolation Valves (MSIV's). Specifically, these changes are: (1) Section 4.5.1.3.a of the Technical Specifications (TS) has been deleted and Section 4.5.1.3.b of the TS has been incorporated in Section 4.5.1.3 of the TS and (2) the basis for MSIV testing has been revised to reflect the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, 1974 edition with winter 1973 addendum.

2.0 EVALUATION

Currently, Section 4.5.1.3.a of the TS requires that during periods of sustained power operation each main steamline isolation valve shall be exercised daily (one at a time) to approximately 95% open position with the reactor at operation power levels. The licensee proposes to delete this TS because the TS is overly restrictive and should be eliminated for the following reasons:

1. The ASME Boiler and Pressure Vessel Code, Section XI, 1974 edition, with winter 1973 addendum prescribes that category A and B valves shall be "exercised" at least once every 3 months. Based on the Code there is no need to perform the 95% open surveillance daily since the quarterly functional surveillance (Technical Specification 4.5.3.1(b)) meets the intent of the Code.
2. In light of item 1 above, the current daily frequency may prove to be counter-productive as it may accelerate upper rib and poppet pad wear which may possibly lead to degradation of seat tightness.

In addition, the daily test is performed using a slow closure solenoid which is different from the solenoid used in the design of the valves for fast closure (i.e. to completely close in 3 to 10 seconds). In actuality, the quarterly functional test (TS 4.5.3.I(b)) provides a better indication of the reliability of the valves to perform their design function.

3. A computerized search of Oyster Creek LER's (submitted from 1978 through 1987) found no incidents where the valves failed the daily test. However, on April 21, 1988, MSIV NZ03A did not reach the 95% open position and thus failed the daily test. Plant power was reduced to below 40% and the valve was successfully tested using the quarterly full closure test method. This further demonstrates that the daily test is not a true indication of valve operability. Therefore, the daily test has not identified any valve deficiencies or corrective actions to improve valve reliability.
4. In light of items 1, 2, and 3 the present daily test represents an unnecessary challenge on the operators. During the surveillance the operator must divert his attention to the test. In addition, the surveillance unnecessarily reduces the margin to an RPS initiation. If the MSIV travels past 95% open to 90% open, a half scram occurs. Plant TS log sheet records indicate that this occurred 24 times in the period between February 1, 1987 and October 1, 1987. This is clearly not an effective unnecessary scram frequency reduction practice.
5. Presently, other BWR plants similar to Oyster Creek are not required to conduct such testing, and the Standard Technical Specifications for BWRs do not require any additional testing other than that specified by the ASME code.

The staff has reviewed the information provided by the licensee and agrees with the licensee that TS 4.5.I.3.a requiring MSIVs to be exercised daily is overly restrictive. We have also determined that the testing of the MSIVs as proposed by the licensee is in accordance with the Standard Technical Specification for BWRs and meets the intent of the ASME Boiler and Pressure Vessel Code, Section XI approved for the facility. On this basis, the staff concludes that the licensee's proposal to delete TS 4.5.I.3.a is acceptable.

The licensee also proposes that Section 4.5.I.3.b of the TS be incorporated into Section 4.5.I.3. Section 4.5.I.3.b required quarterly tests to trip valve (one at a time) and check full closure time, with reactor power not greater than 50% of rated power. This is now incorporated in Section 4.5.I.3 of the T.S. The technical requirement remains unchanged. Therefore, the staff finds this change is purely administrative and does not involve any increase in the probability of consequences of an accident previously evaluated, does not create the possibility of a new or different kind of accident, nor does it result in a decrease in margin of safety. On this basis, the change is acceptable.

Further, the licensee proposed a change to the Bases for TS 4.5.I.3. The licensee has revised the basis for MSIV Testing to reflect the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, 1974 edition with winter 1973 addendum. This testing is in accordance with 10 CFR 50.55a and provides sufficient indication of valve reliability. On this basis we find the revision to the bases for TS 4.5.I.3 to be acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. 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 this amendment.

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 the amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Dated: October 12, 1988

Principal Contributor:

A. Dromerick