May 12, 1992

See correction letter of 6-15-92

Docket No. 50-219

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Mr. John J. Barton
Vice President and Director
GPU Nuclear Corporation
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Barton:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M76045)

The Commission has issued the enclosed Amendment No. 158 to Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated February 15, 1990, as supplemented January 22, 1992.

The amendment would revise the Technical Specifications to permit no limitation on the number of inoperable position indicators for nine ASME Code safety valves during power operation.

A copy of the related Safety Evaluation is also enclosed. Also enclosed is a copy of the Notice of Issuance which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

/s/

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

Enclosures:
1. Amendment No. 158 to DPR-16
2. Safety Evaluation
3. Notice

NRC FILE CENTER COPY

cc w/enclosures:
See next page

OFFICIAL RECORD COPY Document Name: M76045.AMD

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conditions not issued until after EA published in FR

DFO

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P PDR

Mr. John J. Barton
GPU Nuclear Corporation

Oyster Creek Nuclear
Generating Station

cc:

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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 FACILITY OPERATING LICENSE

Amendment No. 158
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 February 15, 1990, as supplemented January 22, 1992, 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 Facility 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. 158, 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, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

David H. Jaffe for

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 12, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 158

FACILITY 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	Insert
3.13-1	3.13-1
3.13-2	3.13-2
3.13-3	3.13-3

3.13 ACCIDENT MONITORING INSTRUMENTATION

Applicability: Applies to the operating status of accident monitoring instrumentation.

Objective: To assure operability of accident monitoring instrumentation.

Specification:

A. Relief Valve Position Indicators

1. The accident monitoring instrumentation channels shown in Table 3.13.1 shall be OPERABLE when the mode switch is in the Startup or Run positions.

2. With the number of OPERABLE accident monitoring instrumentation channels less than the Total Number of Channels shown in Table 3.13.1, either restore the inoperable channels to OPERABLE status within 7 days, or place the reactor in the SHUTDOWN CONDITION within the next 24 hours.

3. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels Operable requirements of Table 3.13.1, either restore the inoperable channel(s) to the OPERABLE status within 48 hours, or place the reactor in the SHUTDOWN CONDITION within the next 24 hours.

B. Safety Valve Position Indicators

1. During POWER OPERATION, both primary* and backup** safety valve monitoring instruments are required to be OPERABLE except as provided in 3.13.B.2.

2. If the primary* accident monitoring instrument on a safety valve becomes inoperable, the primary* accident monitoring instrument on an adjacent valve, if OPERABLE, must have its set point appropriately reduced. When a reduced setpoint causes an alarm condition due to background noise, the setpoint may be returned to normal. If the backup** accident monitoring instrument on a safety valve becomes inoperable, no action is required. The provisions of Specification 3.0.A do not apply.

*Acoustic Monitor
**Thermocouple

C. In the event that any of these monitoring channels become inoperable, they shall be made OPERABLE prior to startup following the next COLD SHUTDOWN.

D. Wide Range Torus Water Level Monitor

1. Two wide range torus water level monitor channels shall be continuously indicated in the control room during POWER OPERATION.

2. With the number of OPERABLE accident monitoring channels less than the total Number of Channels shown in Table 3.13.1, restore the inoperable channel(s) to OPERABLE status within 7 days or place the reactor in the SHUTDOWN CONDITION within the next 24 hours.

3. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels operable requirements of Table 3.13.1, restore the inoperable channel(s) to OPERABLE status within 48 hours or place the reactor in the SHUTDOWN CONDITION within the next 24 hours.

E. Wide Range Drywell Pressure Monitor

1. Two Wide Range Drywell Pressure monitor channels shall be continuously indicated in the control room during POWER OPERATION.

2. With the number of OPERABLE accident monitoring channels less than the total Number of Channels shown in Table 3.13.1, restore the inoperable channel(s) to OPERABLE status within 7 days or place the reactor in the SHUTDOWN CONDITION within the next 24 hours.

3. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels operable requirements of 3.13.1, restore the inoperable channel(s) to OPERABLE status within 48 hours or place the reactor in the SHUTDOWN CONDITION within the next 24 hours.

F. Drywell H_2 Monitor

1. Two drywell hydrogen monitor channels shall be capable of continuously indicating in the control room during POWER OPERATION.

2. With the number of OPERABLE channels less than the total number of channels shown in Table 3.13.1, restore the inoperable channel to OPERABLE status within 30 days or place the reactor in the SHUTDOWN CONDITION with the next 24 hours.

3. With the number of OPERABLE channels less than the Minimum Channels operable requirements of Table 3.13.1, restore at least one channel to OPERABLE status within 7 days or place the reactor in the SHUTDOWN CONDITION within the next 24 hours.

G. Containment High-Range Radiation Monitor

1. Two in-containment high range radiation monitors shall be OPERABLE at all times except for COLD SHUTDOWN and other times when primary containment is not required.

2. In case of failure of one or more monitors, appropriate actions shall be taken to restore its OPERABLE capability as soon as possible. Also, refer to Table 3.1.1 for any additional action which may be required.

3. If the monitor or monitors are not restored to OPERABLE condition within 7 days after the failure, a special report shall be submitted to the NRC within 14 days following the event, outlining the cause of inoperability, actions taken and the planned schedule for restoring the equipment to OPERABLE status.

BASES

The purpose of the safety/relief valve accident monitoring instrumentation is to alert the operator to a stuck open safety/relief valve which could result in an inventory threatening event.

As the safety valves present distinctly different concerns than those related to relief valves, the technical specifications are separated as to the actions taken upon inoperability. Clearly, the actuation of a safety valve will be immediately detectable by observed increase in drywell pressure. Further confirmation can be gained by observing reactor pressure and water level. Operator action in response to these symptoms would be taken regardless of the acoustic monitoring system status. Acoustic monitors act only to confirm the reseating of the safety valve. In actuality, the operator actions in response to the lifting of a safety valve will not change whether or not the safety valve reseats. Therefore, the actions taken for inoperable acoustic monitors on safety valves are significantly less stringent than that taken for those monitors associated with relief valves.

Should an acoustic monitor on a safety valve become inoperable, the setpoint on an adjacent monitor, if operable, will be reduced to assure alarm actuation should the safety valve lift. When a reduced setpoint results in having the acoustic monitor on an adjacent valve in an alarm condition due to background noise, the setpoint may be returned to normal. This will ensure that the adjacent valve's acoustic monitor remains operable. Analyses, using very conservative blowdown

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 158

TO FACILITY 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 February 15, 1990, as supplemented January 22, 1992, GPU Nuclear Corporation (GPUN/the licensee) requested changes to the Oyster Creek Nuclear Generating Station (OCNGS) Technical Specifications (TS) which would revise TS 3.13.B.1 and 3.13.B.2, delete current TS 3.13.B.3 and 3.13.B.4 and the note at the bottom of the page 3.13-1 which applied only during the previous operating cycle. Specifically, the proposed TS 3.13.B.2 would replace current TS 3.13.B.2, 3.13.B.3 and 3.13.B.4 and place no limitation on the number of inoperable position indicators for the nine ASME Code safety valves during power operation. Each safety valve has a primary and a backup position indicator. The primary device is an acoustic monitor while the backup device is a thermocouple. The requirements for relief and safety valve position indication were described in NUREGs 0578, 0660 and 0737. Accoustic monitors were installed in 1980 in response to NUREG 0578 to complement the existing thermocouples. A minor change to the associated bases was also requested. In addition, where TS definitions are used in TS 3.13.D, 3.13.E, 3.13.F and 3.13.G they are now capitalized. This is an editorial change to make these TS consistent with the TS sections.

Currently, OCNGS TS require a plant shutdown depending on the number of inoperable safety valve position indicators and the location of their associated safety valves. The nine safety valves are located on the main steam piping inside containment and they discharge directly to the containment atmosphere. These valves are spring-type code safety valves with no means of remote control.

Between October 1984 and February 1990, there have been approximately 24 safety valve acoustic monitor failures during power operation. So far, only a limited power reduction resulted from TS requirements. However, based on this experience with the acoustic monitors, the licensee anticipates that other power reductions or shutdowns will be necessary. The licensee's safety evaluation has concluded that safety valve position indicators provide no real safety benefit for the OCNGS, and that since no benefit would result from

upgrading or replacing the acoustic monitors with a more reliable system, the licensee is requesting a change to OCNGS TS Section 3.13.B in order to eliminate the potential for unnecessary shutdowns due to safety valve position indicator operability requirements.

In order to be consistent with the requirements of NUREG 0737, item II.D.3, the proposed TS will still require that all safety valve position indication instrumentation be operable prior to startup following each cold shutdown (see TS Section 3.13.C). If a thermocouple becomes inoperable, no compensatory measures would be required. If an acoustic monitor becomes inoperable, the acoustic monitor on an adjacent valve, if operable, would have its setpoint reduced. A setpoint reduced in this manner would be allowed to return to normal if the acoustic monitor alarms due to background noise. This ensures the continued operability of adjacent valves acoustic monitor.

2.0 EVALUATION

The essence of the proposed change is to permit continued operation with no limitation on the number of inoperable position indicators for the safety valves. Repair of any inoperable devices would still be required prior to startup following each cold shutdown. The basis for the proposed change is that, at the OCNGS, procedure-directed operator response to symptoms indicative of a primary system steam or liquid release inside containment is no different whether the source is an open safety valve or breach in the reactor coolant pressure boundary.

The nine safety valves at the OCNGS are spring-loaded and do not have any mechanism for remote operator control of the valve's position from the control room. This means that if a safety valve has inadvertently opened and is stuck open, the operator cannot take any direct action to close the valve. The derived benefit is information only. The control room alarm response procedure alerts the operator to an open safety valve based on the acoustic monitors. The procedure does not direct the operator to take any action other than to confirm that the valve actually opened by examining drywell pressure indicator or safety valve discharge thermocouple readings. After developing the symptom-based Emergency Operating Procedures (EOPs), it was determined that safety valve position indication is no longer necessary based on the manner in which the EOPs direct the operator's actions. The EOPs instruct the operator to respond to plant parameters without the need to diagnose the event. The operator takes actions to control reactor vessel and containment conditions to bring these parameters under control. The operator's actions in response to a loss of reactor vessel water inventory are the same regardless of the source of the inventory loss. The discharge of steam to the drywell from the opening of a safety valve or any other primary system leakage path would be immediately evident to the operator by a rapid increase in drywell pressure and temperature. The high drywell pressure condition is an entry point into both the reactor pressure vessel (RPV) control and containment control procedures. The RPV control procedure directs the operator to control RPV water level and pressure and confirm reactor shutdown. The containment control procedure gives the operator guidance for controlling drywell pressure

and temperature and torus pressure, temperature and water level. The presence of the safety valve acoustic monitor alarm does not alter the operator actions in controlling the changes in plant parameters during an event.

With the development and implementation of symptom-based emergency operating procedures at the OCNGS, the operations response is governed by changes in plant parameters (symptoms) and not by what caused those paremeters to change. Consequently, operator response to a stuck open safety valve is not affected or dependent on the operability of the valve acoustic monitors or thermocouples. Thus, operability of safety valve position indication is not necessary at the OCNGS for transient or accident mitigation and TS for safety valve position indication should not require a plant shutdown or necessitate power reduction in order to ensure compliance. The staff, therefore, finds the proposed changes and related bases to be acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register on May 12, 1992 (57 FR 20307). Accordingly, based upon the environmental assessment, we have determined that the issuance of the amendment will not have a significant effect on the quality of the human environment.

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.

Principal Contributor: M. Razzaque

Date: May 12, 1992

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

GPU NUCLEAR CORPORATION

DOCKET NO. 50-219

NOTICE OF ISSUANCE OF AMENDMENT TO

FACILITY OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (Commission) has issued Amendment No. 158 to Facility Operating License No. DPR-16 issued to GPU Nuclear Corporation (the licensee), which revised the Technical Specifications for operation of the Oyster Creek Nuclear Generating Station located in Ocean County, New Jersey. The amendment is effective as of the date of issuance.

The amendment would revise the Technical Specifications to permit no limitation on the number of inoperable position indicators for nine ASME Code safety valves during power operation.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on March 21, 1990 (55 FR 10561). No request for a hearing or petition for leave to intervene was filed following this notice.

The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement. Based upon the environmental assessment, the Commission has concluded that the

issuance of this amendment will not have a significant effect on the quality of the human environment.

For further details with respect to the action see (1) the application for amendment dated February 15, 1990, as supplemented January 22, 1992, (2) Amendment No. 158 to License No. DPR-16, (3) the Commission's related Safety Evaluation, and (4) the Commission's Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street NW., Washington, DC 20555 and at the local public document room located at the Ocean County Library, Reference Department, 101 Washington Street, Toms River, New Jersey 08753. A copy of items (2), (3) and (4) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Document Control Desk.

Dated at Rockville, Maryland this 12th day of May 1992.

FOR THE NUCLEAR REGULATORY COMMISSION

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