

January 29, 1991

Docket No.: 50-219

Mr. John Barton, Director  
Oyster Creek Nuclear Generating Station  
Post Office Box 388  
Forked River, New Jersey 08731

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Dear Mr. Fitzpatrick:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 79272)

*See Correction ltr. of 2/14/91*

The Commission has issued the enclosed Amendment No. 146 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated December 17, 1990, as supplemented January 7, 1991.

The amendment revises the Technical Specifications to accommodate implementation of a 21-month operating cycle with a 3-month outage, or a 24-month plant refueling cycle for Technical Specification surveillance intervals which will expire prior to the currently 13R refueling outage.

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

Sincerely,

*151*

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

Enclosures:

1. Amendment No. 146 to DPR-16
2. Safety Evaluation

cc w/enclosures:  
See next page

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NAME	:SNorris	:ADromerick:cn	:JFSplz	:R Baehmann	:
DATE	:1/16/91	:1/16/91	:1/16/91	:1/17/91	:

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*JFO/ 11/6/91*

Mr. John Barton  
Oyster Creek Nuclear Generating Station

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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. 146  
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 December 17, 1990, as supplemented January 7, 1991, 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.

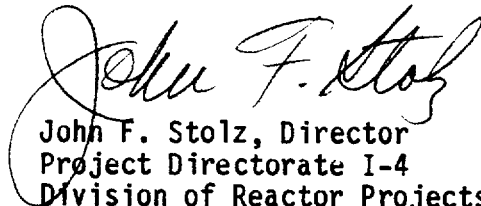
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Provisional Operating License No. DPR-16 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 146, 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



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: January 29, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 146

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised page is identified by amendment number and contains vertical lines indicating the areas of change.

Remove

Page 4.13-2

Insert

Page 4.13-2

TABLE 4.13-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHECK</u>	<u>CALIBRATION</u>
1. Primary and Safety Valve Position Indicator (Primary Detector*)	A	B
Relief and Safety Valve Position Indicator (Backup Indications**)	A	B
Relief Valve Position Indicator (Common Header Temperature Element**)	C	B
2. Wide Range Drywell Pressure Monitor (PT/PR 53 & 54)	A	D
3. Wide Range Torus Water Level Monitor (LT/LR 37 & 38)	A	D
4. Drywell H <sub>2</sub> Monitor	A <sup>1</sup>	E
5. Containment High Range Radiation Monitor	A	F***
6. High Range Radioactive Noble Gas Effluent Monitor		
a. Main Stack	A	F
b. Turbine Building Vent	A	F

Legend:

- A = at least once per 31 days
- B = at least once per 24 months
- C = at least once per 15 days until channel calibration is performed and thence at least once per 31 days
- D = at least once per 6 months
- E = at least once per 12 months
- 1 = Span and Zero using calibration gases
- F = each refueling outage

1 = Span and Zero using calibration gases

\* Acoustic Monitor

\*\* Thermocouple

\*\*\* Channel calibration shall consist of electronic signal substitution of the channel, not including the detector, for all decades above 10R/hr and a one point calibration check of the detector at or below 10R/hr by means of a calibrated portable radiation source traceable to NBS.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 146

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 an application for amendment dated December 17, 1990, as supplemented January 7, 1991, GPU Nuclear Corporation (the licensee) requested a revision of the Technical Specifications (TS) to Provisional Operating License DPR-16 for Oyster Creek Nuclear Generating Station. The proposed change extends the channel calibration surveillance interval from 18 months to at least every 24 months for the equipment listed in Table 4.13-1, Item 1: Primary and Safety Valve Position Indicator (Primary Detector), Relief and Safety Valve Position Indicator (Backup Indication), and the Relief Valve Position Indicator (Common Header Temperature Element). The proposed surveillance interval is intended to support a 24-month refueling cycle at Oyster Creek Nuclear Generating Station.

2.0 EVALUATION

Technical Specification Table 4.13-1, Item 1, requires that a channel calibration be performed once per 18 months. The calibration surveillance checks the 21 instrument channels of the Primary Electromatic Relief Valve (EMRV) and Code Safety Acoustic Valve Monitoring System, including signal conditioner output, pre-amp voltage, channel sensitivity, and alarm setpoints. This surveillance also requires the replacement of the 23 backup indication thermocouples (21 for valve position and 2 for common header temperature) with new, calibrated units. The purpose of the 18-month calibration surveillance is to assure system availability by calibration of system components and the detection of failed components.

The EMRV and Safety Valve Acoustic Monitoring System senses an open or leaking relief/safety valve by utilizing an accelerometer to detect flow induced vibrations in the relief valve piping. Thermocouples are also installed on each safety and relief valve tail piece and common header as a secondary method of valve position indication.

The indicators provide a closed/opened status indication and, as stated by the licensee, are not required by operators to perform any specific manual actions

other than to close an open electromatic relief valve (EMRV). The accident monitoring instrumentation for primary (EMRV) and safety valve position indication are Regulatory Guide 1.97 Type D parameters (providing indication of system actuation). Based on Oyster Creek Topical Report #28 Rev. 1, the licensee designated the EMRV's as RG 1.97 category 2 and the safety valves as RG 1.97 category 3.

In addition to the 18-month calibration, the Acoustic Valve Monitoring System (VMS) also undergoes a monthly surveillance check that verifies the operability of alarms, indications, channel sensitivity, pre-amp voltages, and accelerometer resonances. The monthly surveillance check also verifies the operability of the thermocouple position indicators by confirming that temperature readings are available and by comparing the average relief and safety valve temperature for each steam header and by comparing the temperature readings of the tail piece thermocouples.

The licensee evaluated the surveillance history for the 18-month outage calibration and monthly surveillances. The results, as stated by the licensee, did not indicate any significant problems. A licensee review of all 18-month calibration surveillances performed to date found failures due to cable splice defects, preamplifier degradation, hardline cable failure and preamplifier bias voltage drift diagnostic alarms. These problems (8 total) were corrected with no further discrepancies noted for the 18 month surveillances. The evaluation of 18 monthly surveillance checks performed by the licensee, showed that 10 of the 18 tests required minor repairs or adjustments.

The licensee indicated that the monthly surveillance checks have sufficient testing overlap with the 18-month calibration surveillances such that the failures identified during the 18-month calibration surveillance would also have been detected during the monthly surveillance checks. This overlap does not specifically apply to the acoustic monitoring accelerometers themselves, but a licensee review of surveillance history shows that the accelerometers have not been a contributor to any of the VMS channel failures observed to date. Moreover, a failure of the accelerometer could be observed during the monthly surveillance check of accelerometer resonance.

The proposed 24-month surveillance interval is well within the vendor recommendation for system calibration of every 5 years as referenced by the licensee. The Oyster Creek Nuclear Generating Station TS specifies an allowable outage time for the acoustic monitoring system and for the backup thermocouples. Based on the evaluation of surveillance test results performed by the licensee, the current TS AOT and minimum channels operable requirement provides adequate time for system adjustment or repair to support an extended surveillance interval of 24 months.

The primary (EMRV) and safety valve position (code safety) indicators, and the relief and safety valve position indicators (backup indication) as referenced in TS Table 4.13-1, Item 1, undergo a monthly surveillance check in addition to the 18-month calibration. The monthly checks are not being revised by the licensee and essentially overlap the 18-month refueling calibration test. Therefore, the staff agrees that the monthly surveillance checks will continue to provide assurance of system availability. The reviews of surveillance test



results by the licensee did not indicate any adverse trends in system operation. The TS requirements for AOT and minimum channels operable also support the proposed 24-month surveillance interval. It is expected that the licensee will continue to collect and evaluate the required data to ensure that the extended surveillance interval is appropriate for the referenced systems. Based on the above, the staff finds the proposed surveillance extension to 24 months for Table 4.13.1, Item 1, Primary and Safety Valve Position Indicator (primary detector), Relief and Safety Valve Position Indicator (backup indication), and Relief Valve Position Indicator (common header temperature element) to be acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32 and 51.35, an environmental assessment and finding of no significant impact has been prepared and published in the Federal Register on January 23, 1991 (56 FR 2544). 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.

### 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 (3) 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: January 29, 1991

Principal Contributor: C. Doutt

UNITED STATES NUCLEAR REGULATORY COMMISSIONGPU NUCLEAR CORPORATIONDOCKET NO. 50-219NOTICE OF ISSUANCE OF AMENDMENT TO  
PROVISIONAL OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (Commission) has issued Amendment No. 146 to Provisional 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 modified the Technical Specifications to accommodate implementation of a 21-month operating cycle with a 3-month outage, or a 24-month plant refueling cycle for Technical Specification surveillance intervals which will expire prior to the currently 13R refueling outage.

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 December 27, 1990 (55 FR 53221). 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 December 17, 1990, as supplemented January 7, 1991, (2) Amendment No. 146 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 N.W., Washington, D.C. and at the local public document room, 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, D.C. 20555, Attention: Director, Division of Reactor Projects - I/II.

Dated at Rockville, Maryland this 29th day of January 1991.

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