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

July 1, 1985

Amdt. 88 to DPR-16

Docket No. 50-219
LS05-85-07-006

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

Dear Mr. Fiedler:

SUBJECT: RELIEF VALVE POSITION INDICATION

Re: Oyster Creek Nuclear Generating Station

The Commission has issued the enclosed Amendment No. 88 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment is in response to your application dated June 28, 1985.

This amendment authorizes changes to Tables 3.13-1 and 4.13-1, Accident Monitoring Instrumentation, for the Appendix A Technical Specifications (TS). Specifically, it authorizes changes to the backup relief valve position indicator for each relief valve. The changes allow the thermocouples (TE 65A and TE 65B) on the relief valves' common discharge header to be substituted for an inoperable thermocouple (TE 210-43V, W or X, and TE 210-43Y or Z) immediately downstream of the relief valves which have up-to-now been the only backup relief valve position indicators. The primary relief valve position indicator is an acoustic monitor.

At 3:00 p.m., Monday, June 24, 1985, a backup relief valve position indicator (TE 210-43W) was declared inoperable due to low and erratic operation. This action placed the facility in a TS limiting condition for operation (TS 3.13.A.2) which requires GPU Nuclear (the licensee) to return this thermocouple to operable status within 7 days or place the reactor in cold shutdown within the following 24 hours. Because the inoperable thermocouple is located at the discharge line of the relief valve inside containment, repair of the thermocouple would require a plant shutdown to enter the containment. The plant is at 100% power. To avoid the transient condition of a shutdown and a subsequent restart, the licensee proposed an alternate means to maintain backup relief valve position indication using an existing thermocouple in each of the two common discharge headers from the five relief valves. TS 3.13.C will require the licensee to repair the inoperable thermocouple "prior to startup following the next cold shutdown." The licensee's next scheduled cold shutdown is October 1985.

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The licensee stated in its letter dated June 28, 1985, that there had been no prior indication that the thermocouple's performance was questionable until its behavior was observed on Monday, June 24, 1985. The NRC Resident Inspector at Oyster Creek agrees with the licensee's characterization of the theromcouple's questionable performance.

The staff has reviewed the circumstances associated with the licensee's request and determined that, in accordance with 10 CFR 50.91(a)(5), a valid emergency situation exists.

The amendment was authorized by a telephone call from the undersigned on July 1, 1985.

A Notice of Issuance of Amendment to License and Final No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action will be published in the Commission's biweekly publication notice in the Federal Register. A copy of our related Safety Evaluation is also enclosed.

Sincerely,

Original signed by:

John A. Zwolinski, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosures:
1. Amendment No. 88 to License No. DPR-16
2. Safety Evaluation

cc w/enclosures:
See next page

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* SEE PREVIOUS CONCURRENCE

DL: ORB #5	DL: ORB #5	DL:ORAB	OELD w/ noted changes	DL: ORB #5	DL: ADSA
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7/1/85	7/1/85	/*/85	7/1/85	7/1/85	7/1/85

Docket File Only

The licensee stated in its letter dated June 28, 1985, that there had been no prior indication that the thermocouple's performance was questionable until its behavior was observed on Monday, June 24, 1985. The NRC Oyster Creek Project Manager discussed this with the NRC Resident Inspector at Oyster Creek and he agreed with the licensee.

The amendment was approved by a telephone call from the NRC Oyster Creek Project Manager on July 1, 1985.

A Notice of Issuance of Amendment to License and Final No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action will be published in the Commissions biweekly publication notice in the Federal Register. A copy of our related Safety Evaluation is also enclosed.

Sincerely,

John A. Zwolinski, Chief
Operating Reactors Branch #5
Division of Licensing

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1. Amendment No. to License No. DPR-16
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CJamerson:jb	JDonohew	GHolahan		JZwolinski	DCrutchfield
/ /85	6/28/85	6/28/85	/ /85	/ /85	/ /85

Mr. P. B. Fiedler
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

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 88
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by GPU Nuclear Corporation and Jersey Central Power and Light Company (the licensees) dated June 28, 1985, 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.

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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. 88 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 its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John A. Zwolinski, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 1, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 88

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain vertical lines indicating the area of change.

REMOVE	INSERT
3.13-3	3.13-3
4.13-2	4.13-2

TABLE 3.13.1

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
1. Relief Valve Position Indicator (Primary Detector*)	1/valve	1/valve
Relief Valve Position Indicator (Backup Indications**)	1/valve	

* Acoustic Monitor

** Thermocouple

Thermocouple TE 65A can be substituted for thermocouple TE210-43V, W, or X

Thermocouple TE 65B can be substituted for thermocouple TE210-43Y or Z

TABLE 4.13-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
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***

Legend:

A = at least once per 31 days; B = at least once per 18 months (550 days).
C = at least once per 15 days until channel calibration is performed and thence at least once per 31 days.

* Acoustic Monitor

** Thermocouple

*** This surveillance will commence at the first cold shutdown after July 1, 1985.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 88 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 28, 1985, GPU Nuclear (the licensee) requested an emergency amendment to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station (OCNGS). This amendment would authorize changes to Tables 3.13-1 and 4.13-1, Accident Monitoring Instrumentation, of the Appendix A Technical Specifications (TS) related to the backup relief valve position indicator for each relief valve. The changes will allow thermocouples (TE 65A and TE 65B) on the relief valve's common discharge header to be substituted for an inoperable thermocouple (TE210-43V, W or X, and TE210-43Y or Z) immediately downstream of the relief valves which have up-to-now been the only backup relief valve position indicators. The primary relief valve position indicator is an acoustic monitor.

At 3:00 p.m., Monday, June 24, 1985, a backup relief valve position indicator (TE210-43W) was declared inoperable due to low and erratic operation. This placed the facility in a TS limiting condition for operation (TS 3.13.A.2) which requires GPU Nuclear (the licensee) to return this thermocouple to operable status within 7 days or place the reactor in cold shutdown within the following 24 hours. Because the thermocouple is located at the discharge line of the relief valve inside containment, repair of the thermocouple would require a plant shutdown to enter the containment and repair the thermocouple. The plant is at 100% power.

To avoid the transient condition of a shutdown and a subsequent restart, the licensee proposed an alternate means to maintain backup relief valve position indication using an existing thermocouple in each of the two common discharge headers from the five relief valves. TS 3.13.C will require the licensee to repair the inoperable thermocouple "prior to startup following the next cold shutdown." The licensee's next scheduled cold shutdown is October 1985.

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2.0 BACKGROUND INFORMATION

By our letter dated September 13, 1979, we issued requirements established as a result of our review of the Three Mile Island (Unit 2) accident to all operating nuclear power plants. Certain of these requirements, designated Lessons Learned Category "A", included Section 2.1.3.a of NUREG-0578 dated July 1979, Direct Indication of Valve Position.

Our evaluation of the licensee's compliance with these Category "A" items was attached to our letter to the licensee dated March 29, 1981, as part of Amendment 54 which incorporated Tables 3.13-1 and 4.13-1 into the TS.

Subsequent to these actions, the licensee has experienced a failure of a component of the relief valve position indication system that, under present requirements, will require the plant to shutdown for containment entry and repair of the component. The licensee has determined that sufficient diverse instrumentation remains operable so as to make this shutdown for repair unnecessary at this time.

3.0 EVALUATION

Our requirements for installation of a reliable position indicating system for relief valves were based on the need to provide the operator with a diagnostic aid to reduce the ambiguity between indications that might indicate either an open relief valve or a small line break. Such a system did not need to be safety grade provided that backup methods of determining valve position are available.

The licensee has proposed changes to TS Tables 3.13-1 and 4.13-1 to add requirements on existing thermocouples not previously referred to in these tables. These additional thermocouples are located downstream of the failed thermocouple, in the relief valve discharge headers.

The purpose of this change request is to allow the thermocouples in the discharge headers to be utilized as backup indications of a stuck open relief valve. Although these thermocouples do not provide a direct indication of a specific relief valve's position, when utilized with other existing instrumentation, they will provide positive confirmation of a specific relief valve's position status. As the use of these thermocouples provides an indirect indication of relief valve position, and thus does not exactly meet the criteria of NUREG 0578 for direct position indication, consideration was not previously given to giving credit for their usage. However, the licensee's recent analysis presented in its June 28, 1985, submittal indicates that they can be used to verify relief valve position, in a manner equivalent to that provided by the individual relief valve discharge line thermocouples. The relief valve position indicator backup thermocouple read out outside the control room; the thermocouples on the common discharge header read out in the control room.

The licensee's amendment request describes the results of their analysis. In their evaluation they note that, because the header thermocouples have not been previously used as substitutes for the relief valve backup indicator thermocouple, channel calibrations have not been performed on them. Because containment entry is required to do such a calibration, the licensee has proposed increasing the channel check frequency instead. Calibration of a thermocouple is meaningless because the gain is fixed. Thus calibration is only a check against an independent standard at several points instead of against similar devices at a single point. Consequently calibration of the "new" thermocouple is not required until the next plant cold shutdown.

In addition to consideration of the licensee presentation on this issue, the staff is in the process of publishing our Safety Evaluation (SE) on Reactor Vessel Water Level Instrumentation for this plant. The staff has concluded in that review that the density compensated fuel zone instrumentation provides improvements that reduce the level indication errors caused by high drywell temperatures. There is also the instrumentation to indicate rising torus pool water temperature due to discharges from the relief valves. Therefore, this instrumentation can be relied on to give an indication of loss of coolant through an open relief valve.

As a result of having determined the adequacy of existing instrumentation for reactor vessel water level, containment temperature, and primary (acoustic) relief valve detectors; and having reviewed the licensee's evaluation of the proposed changes, the staff concluded that the proposal constitutes a change in location of a simple sensor and a relaxation of calibration requirements for the relocated sensor until the next plant cold shutdown. Since analysis has shown that the proposed substituted thermocouples can be used to verify relief valve position in a manner equivalent to that provided by the individual relief valve discharge line thermocouples, the staff concludes that the licensee's proposed change is acceptable.

3.1 Findings of Emergency Warranting An Amendment Without Notice

Without this amendment, the licensee will be required to shut down the plant on Monday, July 1, 1985. At 3:00 p.m., Monday, June 24, 1985, a backup relief valve position indicator (thermocouple TE210-43W) for one of the five relief valves was declared inoperable due to a low and erratic indication. The staff had discussions with plant personnel on the inoperable thermocouple on June 25, 1985. The inoperable thermocouple is located at the discharge line of the relief valve inside containment and the repair of the thermocouple would require a plant shutdown to enter the drywell. The licensee contacted the staff on June 26, 1985, to discuss the licensee's proposal to amend the TS to provide for an acceptable backup to the inoperable thermocouple until the next cold shutdown when TS 3.13.C will require the licensee to repair the inoperable thermocouple before restart from the cold shutdown. The licensee requested the proposed license amendment in its letter of June 28, 1985. The licensee stated in its letter dated June 28, 1985, that there had been no prior indication that the thermocouple's performance was questionable until its behavior was observed on Monday, June 24, 1985. The NRC Resident Inspector at Oyster Creek agreed with the licensee's characterization of the thermocouple's questionable performance. The staff has reviewed the emergency circumstances associated with the licensee's request and determined that, in accordance with 10 CFR 50.91(a)(5), a valid emergency situation exists. The staff believes that the licensee made a timely application and did not fail to seek this amendment earlier in order to create the emergency and take advantage of the emergency provisions.

3.2 Final No Significant Hazards Consideration Determination

The relief valve position indication incorporated in the TS in Amendment 54 dated March 29, 1981, was to address TMI-2 Lessons Learned Category "A" requirement 2.1.3.a in NUREG-0578 dated July 1979. The staff's evaluation in its SE for Amendment 54 stated that its requirements for installation of a reliable position indicating system for relief valves were based on the need to provide the operator with a diagnostic aid to reduce the ambiguity between indications that might indicate either an open relief valve or a small line break.

In its letter dated June 28, 1985, the licensee has stated that the existing thermocouple in each of the two common discharge headers downstream of the relief valves has sufficient sensitivity to be a substitute for the inoperable backup relief valve indicator thermocouple immediately downstream of its relief valve. The backup thermocouple is closer to the relief valve than the thermocouple in the common discharge header and would be more sensitive; however, the licensee states that header thermocouples should provide an indication of less than 0.1% of rated relief valve steam flow. The relief valve position indicator backup thermocouples read out outside the control room; the thermocouples on the common discharge header read out in the control room.

In short, the common discharge header thermocouples should provide backup relief valve position indication essentially equivalent to that provided by the now inoperable backup thermocouple which the common discharge header thermocouple would replace. (In addition to this header thermocouple, there is torus pool water temperature indication--the relief valves discharge to the torus pool--and reactor water level indication in the control room. A significant loss of coolant through an open relief valve would be indicated by rising torus pool water temperature and falling reactor water level until alarm setpoints were reached.) Therefore, authorizing the use of the common discharge header thermocouples as a substitute for an inoperable backup relief valve position indicator thermocouple (1) does not involve a significant increase in the probability or consequences of a previously evaluated accident, (2) does not create the possibility of a new or different kind of accident from any accident previously evaluated and (3) does not involve a significant reduction in a margin of safety. Based on this, the staff concludes that the requested action does not involve a significant hazards consideration.

3.3 State Consultation

In accordance with the Commission's regulations, consultation was held with the State of New Jersey, Bureau of Radiation Protection, by telephone on June 26 and July 1, 1985. The State of New Jersey expressed no concern over the licensee's proposed amendment. No other comments were solicited or received. A notice of the proposed amendment was not published in the Federal Register due to the lack of sufficient time for public comment prior to the Monday, July 1, 1985, date when the amendment had to be authorized to prevent the plant from shutting down.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes to the 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 made a final finding that this amendment involves no significant hazards consideration. Accordingly, this 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.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) the amendment does not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) create the possibility of a new or different kind of accident from any previously evaluated or (c) significantly reduce a safety margin and, therefore, the amendment does not involve significant hazards considerations, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

6.0 ACKNOWLEDGEMENT

This Safety Evaluation has been prepared by R. Scholl and J. Donohew.

Dated: July 1, 1985