

June 19, 1984

Docket No. 50-219  
LS05-84-06-034

Docket File  
NRC PDR  
Local PDR  
ORB #5 Reading  
LA  
JLombardo  
OELD  
ELJordan  
JNGrace  
ACRS (10)  
SEPB  
RDiggs (w/fee form)  
LSchneider  
TBarnhart (4)  
LHarmon (2)

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: SECONDARY CONTAINMENT INTEGRITY

Re: Oyster Creek Nuclear Generating Station

The Commission has issued the enclosed Amendment No. 74 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment consists of changes to the Technical Specifications in response to your application dated July 18, 1983, as supplemented February 1 and March 12, 1984.

The amendment authorizes changes to the Appendix A Technical Specifications to include action statements applicable to the loss of secondary containment integrity.

A Notice of Consideration of Issuance of Amendment to License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action was published in the Federal Register on April 25, 1984 (49 FR 17861). No request for hearing and no comments were received.

A copy of our related Safety Evaluation is also enclosed. This action will appear in the Commission's Monthly Notice publication in the Federal Register.

Sincerely,  
Original signed by Thomas Wambach  
for  
Dennis M. Crutchfield, Chief  
Operating Reactors Branch #5  
Division of Licensing

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PDR ADOCK 05000219  
PDR

Enclosures:

- Amendment No. 74 to License No. DPR-16
- Safety Evaluation

cc w/enclosures:  
See next page

DL:ORB #5  
MShuttleworth:jc  
5/15/84

DL:ORB #5  
JLombardo  
5/21/84

DL:ORB #5  
Dcrutchfield  
6/19/84

OELD  
WButler  
5/24/84

LRuth  
5/24/84

DL:ORB #5  
FM Maglia  
6/19/84

Add:  
T. Barnhart (4) cys  
L. Harmon (2) cys  
L. Schneider (1) cys  
J. Collins (3) cys (314)

SEO1

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EX(51)

RHouston  
5/18/84

withholding  
6/19/84

WR

WB

6/19/84



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

June 19, 1984

Docket No. 50-219  
LS05-84-06-034

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: SECONDARY CONTAINMENT INTEGRITY

Re: Oyster Creek Nuclear Generating Station

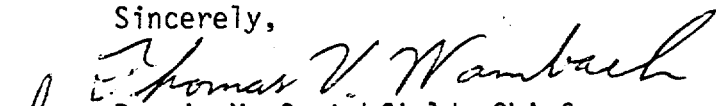
The Commission has issued the enclosed Amendment No. 74 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment consists of changes to the Technical Specifications in response to your application dated July 18, 1983, as supplemented February 1 and March 12, 1984.

The amendment authorizes changes to the Appendix A Technical Specifications to include action statements applicable to the loss of secondary containment integrity.

A Notice of Consideration of Issuance of Amendment to License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action was published in the Federal Register on April 25, 1984 (49 FR 17861). No request for hearing and no comments were received.

A copy of our related Safety Evaluation is also enclosed. This action will appear in the Commission's Monthly Notice publication in the Federal Register.

Sincerely,

*for*   
Dennis M. Crutchfield, Chief  
Operating Reactors Branch #5  
Division of Licensing

Enclosures:

1. Amendment No. 74 to License No. DPR-16
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. P. B. Fiedler

cc

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Region II Office  
ATTN: Regional Radiation Representative  
26 Federal Plaza  
New York, New York 10007

Licensing Supervisor  
Oyster Creek Nuclear Generating Station  
Post Office Box 388  
Forked River, New Jersey 08731



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 THE PROVISIONAL OPERATING LICENSE

Amendment No. 74  
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 July 18, 1983 as supplemented February 1 and March 12, 1984, 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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P PDR

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:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 74, 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

*for*   
Dennis M. Crutchfield, Chief  
Operating Reactors Branch #5  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: June 19, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 74

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

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

PAGES

3.5-3a

3.5-3b

3.5-4

3.5-7

If the differential pressure of Specification 3.5.A.9a cannot be maintained, and the differential pressure cannot be restored within the subsequent 6 hour period, an orderly shutdown shall be initiated and the reactor shall be in the shutdown condition within the next 6 hours and the cold shutdown condition within the following 18 hours.

Instrumentation to measure the drywell to suppression chamber differential pressure and the torus water level shall be operable at any time the differential pressure is required to be maintained by Specification 3.5.A.9.a. Operation may continue for up to thirty days with one instrument out of service. If both differential pressure or both water level instruments are not operable, or if one instrument is out of service for more than thirty days, and such indication cannot be restored in the next 6 hours, the reactor shall be in the shutdown condition within the following 18 hours.

## B. Secondary Containment

1. Secondary containment integrity shall be maintained at all times unless all of the following conditions are met:

- a) The reactor is subcritical and Specification 3.2.A is met.
- b) The reactor is in the cold shutdown condition.
- c) The reactor vessel head or the drywell head are in place.
- d) No work is being performed on the reactor or its connected systems in the reactor building which could result in inadvertent releases of radioactive material.
- e) No operations are being performed in, above, or around the spent fuel storage pool that could cause release of radioactive materials.

1.1 Upon the accidental loss of secondary containment integrity, restore secondary containment integrity within 4 hours, or:

- a) During Power Operation:
  - 1) Have the reactor mode switch in the shutdown mode position within the following 24 hours.
  - 2) Cease all work on the reactor or its connected systems in the reactor building which could result in inadvertent releases of radioactive materials.
  - 3) Cease all operations in, above or around the Spent Fuel Storage Pool that could cause release of radioactive materials.
- b) During refueling:
  - 1) Cease fuel handling operations or activities which could

reduce the shutdown margin (excluding reactor coolant temperature changes).

2) Cease all work on the reactor or its connected systems in the reactor building which could result in inadvertant releases of radioactive materials.

3) Cease all operations in, above or around the Spent Fuel Storage Pool that could cause release of radioactive materials.

2. Two separate and independent standby gas treatment system circuits shall be operable when secondary containment is required except as specified by Specification 3.5.B.3.



3. With one standby gas treatment system circuit inoperable:
  - a. During Power Operation:
    1. Demonstrate the operability of the other standby gas treatment system circuit within 2 hours, and
    2. Continue to demonstrate the operability of the standby gas treatment system circuit once per 24 hours until the inoperable standby gas treatment circuit is returned to operable status.
    3. Restore the inoperable standby gas treatment circuit to operable status within 7 days or be subcritical with reactor coolant temperature less than 212°F within the next 36 hours.
  - b. During Refueling:
    1. Demonstrate the operability of the redundant standby gas treatment system within 2 hours, and
    2. Continue to demonstrate the operability of the redundant standby gas treatment system once per 7 days until the inoperable system is returned to operable status.
    3. Restore the inoperable standby gas treatment system to operable status within 30 days or cease all spent fuel handling, core alterations or operation that could reduce the shutdown margin (excluding reactor coolant temperature changes).
4. If Specifications 3.5.B.2 and 3.5.B.3 are not met, reactor shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours and the condition of Specification 3.5.B.1 shall be met.

Bases:

Specifications are placed on the operating status of the containment systems to assure their availability to control the release of any radioactive materials from irradiated fuel in the event of an accident condition. The primary containment system (1) provides a barrier against uncontrolled release of fission products to the environs in the event of a break in the reactor coolant systems.

Whenever the reactor coolant water temperature is above 212°F, failure of the reactor coolant system would cause rapid expulsion of the coolant from the reactor with an associated pressure rise in the primary containment. Primary containment is required, therefore, to contain the thermal energy of the expelled coolant.

containment is required during fuel handling operations and whenever work is being performed on the reactor or its connected systems in the reactor building since their operation could result in inadvertent release of radioactive material.

When secondary containment is not maintained, the additional restrictions on operation and maintenance give assurance that the probability of inadvertent releases of radioactive material will be minimized. Maintenance will not be performed on systems which connect to the reactor vessel lower than the top of the active fuel unless the system is isolated by at least one locked closed isolation valve.

The standby gas treatment system (6) filters and exhausts the reactor building atmosphere to the stack during secondary containment isolation conditions, with a minimum release of radioactive materials from the reactor building to the environs.

Two separate filter trains are provided each having 100% capacity. (6) If one filter train becomes inoperable, there is no immediate threat to secondary containment and reactor operation may continue while repairs are being made. Since the test interval for this system is one month (Specification 4.5), the time out-of-service allowance of 7 days is based on considerations presented in the Bases in Specification 3.2 for a one-out-of-two system.

- References:
- (1) FDSAR, Volume I, Section V-1
  - (2) FDSAR, Volume I, Section V-1.4.1
  - (3) FDSAR, Volume I, Section V-1.7
  - (4) Licensing Application, Amendment 11, Question III-25
  - (5) FDSAR, Volume I, Section V-2
  - (6) FDSAR, Volume I, Section V-2.4
  - (7) Licensing Application, Amendment 42
  - (8) Licensing Application, Amendment 32, Question 3
  - (9) Robbins, C. H., "Tests on a Full Scale 1/48 Segment of the Humboldt Bay Pressure Suppression Containment," GEAP-3596, November 17, 1960.
  - (10) Bodega Bay Preliminary Hazards Summary Report, Appendix I, Docket 50-205, December 28, 1962.
  - (11) Report H. R. Erickson, Bergen-Paterson to K. R. Goller, NRC, October 7, 1974. Subject: Hydraulic Shock Sway Arrestors.

In conjunction with the Mark I Containment Short Term Program, a plant unique analysis was performed on August 2, 1976, which demonstrated a factor of safety of at least two for the weakest element in the suppression chamber support system. The maintenance of a drywell-suppression chamber differential pressure within the range shown on Figure 3.5-1 with a suppression chamber water level corresponding to a downcomer submergence range of 3.0 to 5.3 feet will assure the integrity of the suppression chamber when subjected to post-LOCA suppression pool hydrodynamic forces.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 74 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 July 18, 1983, as supplemented February 1 and March 12, 1984, GPU Nuclear Corporation (GPU) requested an amendment to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment would authorize changes to Appendix A Technical Specifications to include action statements applicable to the loss of secondary containment integrity.

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 April 25, 1984 (49 FR 17861). A request for hearing and public comments were not received.

2.0 DISCUSSION AND EVALUATION

The proposed changes to Section 3.5.B of the Appendix A Technical Specifications include action statements applicable to the loss of secondary containment integrity. Section 3.5.B.1.1 would be added to include what action is to be taken when secondary containment integrity is not maintained during operating Modes 1-4. Section 3.5.B.1.1 reads as follows:

Upon accidental loss of secondary containment integrity, restore secondary containment within 4 hours, or;

a. During Power Operation

- (1) Have the reactor mode switch in the shutdown mode position within the following 24 hours.
- (2) Cease all work on the reactor or its connected system in the reactor building which could result in an inadvertent release of radioactive materials.

- (3) Cease all operations in, above, or around the Spent Fuel Pool that could cause release of radioactive materials.

b. During Refueling

- (1) Cease fuel handling operation or activities which could reduce the shutdown margin (excluding reactor coolant temperature changes).
- (2) Cease all work on the reactor or its connected systems in the reactor building which could result in inadvertent releases of radioactive materials.
- (3) Cease all operations in, above, or around the Spent Fuel Storage Pool that could cause release of radioactive materials.

The additional restrictions on operation and maintenance will give assurance that the probability of inadvertent releases of radioactive material will be minimized. Maintenance will not be performed on systems which connect to the reactor vessel lower than the top of the active fuel unless the system is isolated by at least one locked closed isolation valve.

Section 3.5.B.1.d would be modified to clarify its intent with the addition of the statement, "which could result in inadvertent releases of radioactive material."

The Licensee has noted that the existing specifications do not address what actions are to be taken upon the loss of secondary containment integrity. The inclusion of actions into Section 3.5.B.1.1 to mitigate the loss of secondary containment will enhance the safety of the plant. The modification to Section 3.5.B.1.d will clarify the intent of the Specification regarding the conditions which must be fulfilled in order that secondary containment need not be maintained. Accordingly, the staff finds the proposed changes to Sections 3.5.B.1.1 and 3.5.B.1.d of the Technical Specifications to be acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area. The staff has determined that the amendment involves no significant increase in the amounts 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, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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.

#### 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 L. Ruth.

Dated: June 19, 1984