

December 27, 2001

Mr. Oliver D. Kingsley, President
and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF
AMENDMENT RE: OFFSITE POWER SOURCES (TAC NO. MB0976)

Dear Mr. Kingsley:

The Commission has issued the enclosed Amendment No. 222 to Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated December 29, 2000, as supplemented October 11, 2001.

The amendment revises the offsite power sources identified in Technical Specification 3.7.A.3 to remove one listed source and add a different source. In addition, the bases have been revised to reflect the availability of the offsite sources and to revise minor administrative changes.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/RA/

Helen N. Pastis, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosures: 1. Amendment No. 222 to DPR-16
2. Safety Evaluation

cc w/encls: See next page

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DISTRIBUTION:

PUBLIC	OGC	E. Adensam
PD1-1 r/f	G. Hill, (2)	L. Raghavan
ASC	W. Beckner	J. Rogge, RI
H. Pastis	P. Hearn	J. Knox
S. Little	ACRS	

*SE input dated 12/06/01 was provided and no major changes were made

ACCESSION NO.: ML013400129

NRR-058

OFFICE	PD1-1/PM	PD1-1/LA	OGC	EEIB:DE	EEIB:DE	PD1-1/(A)SC
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DATE	12/10/01	12/7/01	12/20/01	12/6/01	12/20/01	12/20/01

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AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 222
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by AmerGen Energy Company, LLC, et al., (the licensee), dated December 29, 2000, as supplemented on October 11, 2001, 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. 222, are hereby incorporated in the license. AmerGen Energy Company, LLC, shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA P. Tam for/

L. Raghavan, Acting Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: December 27, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 222

FACILITY OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

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

Remove

3.7-1
3.7-3
3.7-4
3.7-5

Insert

3.7-1
3.7-3
3.7-4
3.7-5

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 222

TO FACILITY OPERATING LICENSE NO. DPR-16

AMERGEN ENERGY COMPANY, LCC

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

By letter dated December 29, 2000, as supplemented on October 11, 2001, the AmerGen Energy Company, LLC, (AmerGen or the licensee) submitted a request for changes to the Oyster Creek Nuclear Generating Station (Oyster Creek) Technical Specifications (TSs). The requested changes would revise the offsite power sources identified in TS 3.7.A.3 to remove one listed source and add a different source. In addition, the bases have been revised to reflect the availability of the offsite sources and to make minor editorial changes. The October 11, 2001, letter provided clarifying information within the scope of the original application and did not change the NRC staff's initial proposed no significant hazards consideration determination. The change resulted from a study of offsite power supply availability and reflects sources that ensure an acceptable level of reliability and redundancy.

2.0 EVALUATION

The Oyster Creek offsite power system is required to meet Criterion 17 defined in Section 3.1.13 of the Oyster Creek Final Safety Analysis Report (FSAR) Update. Criterion 17 requires two independent offsite power sources from the transmission network to safety systems.

The offsite system, in part, includes five transmission lines from the transmission network to the Oyster Creek switchyards. These lines are the 230 kV O1029 line, the 230 kV N1028 line, the 69 kV S2045 line, the 34.5 kV Q121 line, and the 34.5 kV Z52 line. These transmission lines and their connection through the Oyster Creek switchyards to safety systems are described in Section 8.2 of the Oyster Creek FSAR Update. Current Oyster Creek TSs require one of the two 230 kV transmission lines (either O1029 or N1028) to be fully operational. Also, an additional line (either the second 230 kV line or one 34.5 kV line) is required to be fully operational.

In July 1999, it was discovered that an offsite power transmission line in the 34.5 kV system (the Z52 line) was not configured as identified in the Oyster Creek FSAR. The FSAR states

that the Z52 line delivers power to Oyster Creek and provides an interconnection with the utility transmission system. The normal configuration of the Z52 line has an open load break switch at a location that is remote from the Oyster Creek switchyards. Therefore, the line does not provide power to Oyster Creek without action by the transmission system operator. This problem was documented in the licensee's corrective action program (CAP). The CAP resulted in several corrective actions, one of which was to review the design bases for offsite power connections to the facility. This review identified several conflicts between the current Oyster Creek TS, the TS basis, and the design basis documented in the Oyster Creek FSAR. To correct these conflicts, it was recommended that the Oyster Creek TS should be revised to allow credit for an existing separate 69 kV S2045 line.

The resulting proposed TS requires one 230 kV line to be fully operational. For the additional independent line, the proposed TS requires either the 69 kV S2045 line or the 34.5kV Q121 line to be fully operational. The availability of the 34.5 kV Z52 line is no longer credited for meeting offsite system operability requirements. Also, the availability of one of the two 230 kV lines is no longer credited as a second offsite source for offsite system operability.

Criterion 17 requires each offsite power source to be designed to be available in sufficient time following a loss of all onsite standby diesel generator power sources and the other offsite power source, to ensure that specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded. The Oyster Creek FSAR Update indicates that the 34.5 kV Q121, the 34.5 kV Z52, and the 69 kV S2045 lines can be restored in sufficient time (15-30 minutes) to satisfy both the controlled shutdown and emergency condition requirements.

In addition, the Oyster Creek FSAR Update indicates that any specific transmission line route required to re-establish 34.5 kV service to Oyster Creek can be affected by a "common failure mode" if the initiating event occurs where the 230 kV lines cross or share right of way with the lines planned for re-establishment. The Oyster Creek FSAR Update states that analysis has shown that an initiating event at any one of these and other points does not prevent re-establishment of 34.5 kV service to Oyster Creek by alternate routes.

From the above FSAR information, the following combinations of offsite sources meet Criterion 17 requirements for capacity, capability, and independence and are therefore considered acceptable.

- One 230 kV line and the 69 kV S2045 line in combination with either the 34.5 kV Q121 line or the 34.5 kV Z52 line
- One 230 kV line and the 34.5 kV Q121 line in combination with the 34.5 kV Z52 line

For Oyster Creek TS, the following combinations of offsite sources have been proposed in order to ensure an acceptable level of reliability and redundancy.

- One 230 kV line and the 69 kV S2045 line
- One 230 kV line and the 34.5 kV Q121 line

For the first combination, results of analysis (Reference 1 and Revision 12 of the FSAR Update) indicate that the use of the 69 kV S2045 line, in conjunction with a 230 kV line, will provide adequate capacity and capability for safety-related systems. In response to a request for additional information (Reference 3), the licensee further indicated that the 69 kV S2045 line is physically independent of the 230 kV transmission lines. This combination provides two physically independent sources of power that have sufficient capacity and capability to permit functioning of structures, systems, and components important to nuclear safety and meets the requirement of Criterion 17. The staff, therefore, agrees with the licensee's assessment that this combination ensures an acceptable level of reliability and redundancy and is considered acceptable.

For the second combination, results of analysis (Reference 1 and Revision 12 of the FSAR Update), similarly indicate that the use of the 34.5 kV Q121 line, in conjunction with a 230 kV line, will provide adequate capacity and capability for safety-related systems. However, for independence, revision 12 of the FSAR Update indicates that the 34.5 kV Q121 line shares a right-of-way with (and also crosses under) the 230 kV lines. An initiating event where the 230 kV lines cross or share right of way with the 34.5 kV Q121 line, could cause the loss of this combination of offsite lines. In response to a request for additional information (Reference 3), the licensee further indicated that the 34.5 kV Z52 will be activated (i.e., the load break switch will be closed) under pre-established conditions should electrical power from the 34.5 kV Q121 line be required by the Oyster Creek plant. With an active 34.5 kV Z52 line when the 34.5 kV Q121 line is required, the combination of the 34.5 kV Q121 line and one or both of the 230 kV lines provides two physically independent sources of power that have sufficient capacity and capability to permit functioning of structures, systems, and components important to nuclear safety and meets the requirement of Criterion 17.

In addition, the staff agrees with the licensee's conclusion (provided in Reference 3) that the risk associated with the potential interaction of the 34.5 kV Q121 line and the two 230 kV lines where they cross is similar to the risk associated with the potential for common mode failure at the switchyard, where all offsite power sources enter the station electrical distribution system.

Based on the above, the staff finds that Criterion 17 will be met. The staff finds the proposed TS change 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

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (66 FR 17965). 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 the amendment.

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.

6.0 REFERENCES

1. AmerGen Energy Company, LLC transmittal of an Application for Amendment to Oyster Creek Generating Station Unit 1 Operating License DPR-16 to NRC from Ron J. DeGregorio, Vice President - Oyster Creek, December 29, 2000, 2130-00-20314, NRC Docket Number 50-219, TAC No. MB0976, ADAMS Accession Number ML010110255.
2. NRC Letter dated August 15, 2001, "Oyster Creek Nuclear Generating Station - Request for Additional Information on Technical Specification Change Request No. 285 - Offsite Power Sources, TAC No. MB0976, ADAMS Accession Number ML012250211.
3. AmerGen Energy Company, LLC, Response to Request for Additional Information, Oyster Creek Generating Station Unit 1, Operating License DPR-16, to NRC from Ron J. DeGregorio, Vice President - Oyster Creek, October 11, 2001, 2130-01-20196, NRC Docket Number 50-219, TAC No. MB0976, ADAMS Accession Number ML012890340.

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Date: December 27, 2001

Oyster Creek Nuclear Generating Station

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