

November 24, 2003

Mr. John L. Skolds  
Chairman and CEO  
AmerGen Energy Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF  
AMENDMENT RE: STARTUP TRANSFORMER AND EMERGENCY DIESEL  
GENERATOR UNAVAILABILITY PERIODS (TAC NO. MB9144)

Dear Mr. Skolds:

The Commission has issued the enclosed Amendment No. 239 to Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated June 2, 2003.

The amendment revised the Technical Specifications, Sections 3.7.B.1 and 3.7.C.2. Section 3.7.B.1 required that the reactor may remain in operation "for a period not to exceed 7 days in any 30 day period if a startup transformer is out of service." Section 3.7.C.2 required that the reactor may be in operation "for a period not to exceed 7 days in any 30 day period if a diesel generator is out of service." The amendment deleted the phrase "in any 30 day period" from these two sections.

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/

Peter S. Tam, 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. 239 to DPR-16  
2. Safety Evaluation

cc w/encls: See next page

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DATE	9/2/03	8/25/03	10/7/03	8/14/03	9/8/03	10/7/03	11/24/03

\*Concurrence by memo of 8/14/03

\*\*KKavanagh concurred for TBoyce

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AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 239  
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 June 2, 2003, 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. 239, 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/*

Richard J. Laufer, 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: November 24, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 239

FACILITY OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Replace the following page of Appendix A, Technical Specifications, with the attached revised page as indicated. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove

3.7-2

Insert

3.7-2

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 239

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 June 2, 2003, AmerGen Energy Company, LLC, (AmerGen or the licensee) submitted a request for changes to the Oyster Creek Nuclear Generating Station (OCNGS) Technical Specifications (TSs). The proposed change would delete the 30-day unavailability period restriction for occurrence of the specified 7-day allowed outage durations for the startup transformers and the emergency diesel generators (EDGs) currently contained in the OCNGS TSs Sections 3.7.B.1 and 3.7.C.2. The licensee states that the phrase "in any 30 day period" is unnecessarily restrictive and is not included in other Limiting Conditions of Operation (LCOs) statement. This restriction has no defined basis in the existing Oyster Creek TSs, nor in the design and licensing basis.

2.0 REGULATORY EVALUATION

The Nuclear Regulatory Commission (NRC) staff applied a number of regulatory requirements and guidance documents in its review of the application. General Design Criterion (GDC)-17\*, "Electric Power Systems," of Appendix A, "General Design Criteria for Nuclear Power Plants," to Title 10, Part 50, of the *Code of Federal Regulations* (10 CFR Part 50) requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, GDC-17 requires provisions to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

GDC-18\*, "Inspection and Testing of Electric Power Systems," requires that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing.

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\*OCNGS was constructed before the GDCs of 10 CFR Part 50 were promulgated. However, as a result of its evaluation to convert the OCNGS Provisional Operating License DPR-16 to the full-term Operating License DPR-16, the NRC staff evaluated and accepted the OCNGS electric power systems licensing basis against GDC-17 and -18 (see Chapter 8.0 of NUREG-1382, Safety Evaluation Report supporting the license conversion). Commitment to GDC-17 and -18 is stated in Sections 8.3.1.2.2 and 8.3.1.2.5 of the OCNGS Updated Final Safety Analysis Report.

Regulatory Guide (RG) 1.93, "Availability of Electric Power Sources," provides guidance with respect to operating restrictions if the number of available alternating current (AC) sources is less than that required by the LCO imposed by the TSs.

### 3.0 TECHNICAL EVALUATION

As described by the licensee's June 2, 2003, application, the OCNGS onsite power system consists of a non-Class 1E system and two redundant Class 1E safety-related systems. The normal source for both the non-Class 1E and Class 1E distribution systems is the turbine generator, which feeds the station auxiliary transformer through the generator isolated phase bus. The preferred power supply for the distribution systems during startup, shutdown, abnormal or accident conditions is the startup transformers, which are fed from the transmission system via the 34.5-kV Oyster Creek substation. Two redundant startup transformers are part of the non-essential auxiliary power system. Essential bus sections 1C and 1D are normally powered from 4.16-kV switchgear bus sections 1A and 1B. Essential bus sections 1C and 1D are also provided with bus tie breakers that interconnect the essential buses, which permits energizing them from either of the two startup transformers. One startup transformer is adequate to supply power to the required safety loads in the event of a design-basis accident (DBA) condition.

Two separate and independent EDGs are provided as the redundant onsite standby power supplies for safety-related equipment. The EDGs are part of the essential auxiliary electrical power system. In the event of loss of normal or preferred power to the essential 4.16 kV switchgear bus sections 1C and 1D, these buses are designed to separate from the non-essential bus sections 1A and 1B and the EDGs will automatically start, accelerate and close into the emergency buses in 20 seconds. A single EDG is adequate to power the required safety loads in the event of a DBA.

Oyster Creek TS 3.7.B.1 currently requires that the reactor may remain in operation for a period not to exceed 7 days in any 30-day period if a startup transformer is out of service. TS 3.7.C.2 currently requires that the reactor may remain in operation for a period not to exceed 7 days in any 30-day period if an EDG is out of service. The licensee proposed to delete the phrase "in any 30 day period" from each of these TSs. The licensee provided the following justification.

The licensee states that the phrase "in any 30 day period" is unnecessarily restrictive and is not included in other LCO action statements. The licensee also states that this restriction has no defined basis in the existing OCNGS TSs, nor in the design and licensing basis and that this phrase may be a carryover requirement from the original OCNGS design, which only included one EDG and thus increased its importance as well as that of the startup transformers.

The Nuclear Regulatory Commission (NRC) staff notes that the OCNGS licensing basis incorporated two 100% capacity EDGs. Further, during the AOT of 7 days, the redundant startup transformer or the EDG is required to be operable. This requirement ensures that adequate AC power is available to safety-related loads in order to safely shutdown the plant and mitigate the consequences of a DBA. Based upon the above information, the NRC staff finds that the proposed changes to the OCNGS TSs do not affect its compliance with the requirements of GDCs-17 and 18.

The NRC staff concludes that the current 30-day unavailability period restriction for occurrence of the specified 7-day allowed outage duration for startup transformers and EDGs is an unnecessary restriction and is not part of the Oyster Creek licensing basis. Also, the proposed change is in line with the recommendations of RG 1.93 which does not contain such restriction. Therefore, the proposed change to TSs 3.7.B.1 and 3.7.C.2 to delete the phrase "in any 30 day period" is acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendment. In response, the official submitted a letter (J. Lipoti of the Department of Environmental Protection to NRC, dated September 2, 2003; ADAMS Accession No. ML032591148), stating that:

....A relaxation of allowed outage times for diesel generators and startup transformers is ill-advised. It would be more appropriate for the NRC to utilize its probabilistic risk assessment (PRA) techniques to re-examine loss of offsite power and to establish allowed outage times for diesel generators and startup transformers based on industry experience and existing infrastructure issues. The nuclear industry and the NRC are quick to delete or reduce requirements based on PRA, this is one time that safety requirements may need to be strengthened based on PRA.

..... It would not be prudent to proceed with any change to onsite or offsite electrical power technical specifications for Oyster until this effort [two reports being prepared by a U.S. and Canadian Joint Power System Outage Task Force Nuclear Working Group, addressing the August 14, 2003, outage] is completed.

The NRC staff reviewed the official's comments and notes that PRA techniques were not used by the licensee to apply for this amendment, nor did the NRC staff use PRA techniques to review and approve this amendment. However, using a PRA perspective and assuming both OCNCS EDGs experience significant increases in maintenance outage times over current experience (i.e., more than doubles), the resulting increase calculated by the NRC staff using the OCNCS Standardized Plant Analysis Risk model is small and within the acceptance guidelines presented in Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis." This calculational result supports the NRC staff's conclusion that the licensee's proposed revision to its TS is acceptable and that public health and safety is maintained.

Reliability performance goals for risk-significant structures, systems, and components (SSCs) (which includes the emergency diesel generators (EDGs) and the startup transformer at OCNCS) are not controlled by the Technical Specifications (TSs), but rather, are tracked by each licensee in accordance with the requirements of the Maintenance Rule (10 CFR 50.65). In addition, the Maintenance Rule requires licensees to monitor the unavailability of the risk-significant SSCs due to maintenance against established goals to ensure that acceptable SSC unavailability is maintained. If the risk-significant SSC does not meet its pre-established reliability and/or unavailability performance goal (e.g., by undergoing consecutive outages in short periods of time), the licensee must take the appropriate actions specified by 10 CFR 50.65(a)(1), including increased management attention and goal setting, to restore performance



to an acceptable level. The Maintenance Rule requires licensees to evaluate these goals at least once per refueling cycle. Thus, existing requirements provided by regulations, not plant TSs, ensure that the risk-significant SSC reliability and availability are maintained. Therefore, even though the cumulative 30-day restriction is being removed, the present Maintenance Rule limitation imposes an appropriate and more effective control for maintaining high EDG availability.

The 30-day limitation in the Oyster Creek TSs is atypical and, as such, not consistent with the Standard TSs (e.g., NUREG-1433 and NUREG-1434, "Standard Technical Specifications for General Electric Plants, BWR/4 and BWR/6"). Further, this limitation does little to limit the actual overall plant risk, which is better controlled by the Maintenance Rule. As such, there is no reason not to bring the OCNGS TS in line with the Standard TSs.

The New Jersey official noted that a U.S. and Canadian Joint Power System Outage Task Force Nuclear Working Group is preparing two reports. The NRC staff will review the findings of the task force investigation of the August 14, 2003, power outage and will follow its regulatory process to take appropriate actions necessary to ensure public health and safety is maintained.

Finally, the New Jersey official requested that "prior to approving any relaxation of a technical specification requirement, the basis for the change should be fully explained and added to the bases section of the technical specification." This SE has fully documented the licensee's proposed change and the basis for NRC acceptance. The SE, as well as the licensee's application for the amendment, are docketed in the NRC's permanent record system, and are easily accessible by members of the public. NRC's regulatory requirement regarding TS bases, as stated in 10 CFR 50.36(a), does not require a basis for a requirement which has been removed (i.e., the "30 day" phrase).

## 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to 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 (68 FR 40709). Accordingly, the amendment meets the eligibility criteria for a 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.

## 6.0 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: O. Chopra  
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Date: November 24, 2003

J. Lipoti

Oyster Creek Nuclear Generating Station

cc:

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