

November 3, 2000

Mr. Ronald DeGregorio
Vice President Oyster Creek
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, NJ 08731

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF
AMENDMENT RE: CORE SPRAY SPARGERS (TAC NO. MA8560)

Dear Mr. DeGregorio:

The Commission has issued the enclosed Amendment No. 217 to Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated March 21, 2000, as supplemented on June 14, September 26, and October 16, 2000.

On the date of the March 21, 2000, application, GPU Nuclear, Inc. (GPUN) was the licensed operator for Oyster Creek. On August 8, 2000, GPUN's ownership interest in Oyster Creek was transferred to AmerGen Energy Company, LLC (AmerGen). By letter dated August 10, 2000, AmerGen requested that the U.S. Nuclear Regulatory Commission continue to review and act upon all requests before the Commission which had been submitted by GPUN. Accordingly, the staff has completed its review of the requested amendment.

The amendment revises the Technical Specifications to delete the reporting requirements for the core spray spargers.

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, Sr. 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. 217 to DPR-16
2. Safety Evaluation

cc w/encls: See next page

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DISTRIBUTION:

PUBLIC	OGC	WBeckner	JRogge, RI
PD1-1 R/F	HPastis	GHill, (2)	ACRS
MGamberoni	SLittle	WKoo	

* See previous concurrence

ACCESSION NUMBER: ML003759598 **SE input dated 10/5/00 was provided and no major changes were made

OFFICE	PM:PD1-1	E	LA:PD1-1	E	OGC*	SC:PDI-1	EMCB**
NAME	HPastis		SLittle MO'Brien chng only 10/28/00		RHoeftling	MGamberoni	WBateman
DATE	11/1/00		11/1/00		10/25/00	11/02/00	10/05/00

OFFICIAL RECORD COPY

AMERGEN ENERGY COMPANY, LLC

AND

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 217
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by GPU Nuclear, Inc., et al., dated March 21, 2000, as supplemented on June 14, September 26, and October 16, 2000, and as adopted by AmerGen Energy Company, LLC (the licensee), pursuant to a letter dated August 10, 2000, 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 Operating License and 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. 217 , 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/

Marsha Gamberoni, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachments: 1. Page 4 of License
2. Changes to the
Technical Specifications

Date of Issuance: November 3, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 217

FACILITY OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Replace the following page of the operating license with the attached revised page as indicated. The revised page is identified by amendment number and contains marginal lines indicating the area of change.

Remove

4

Insert

4

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

Remove

6-16

Insert

6-16

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 217

TO FACILITY OPERATING LICENSE NO. DPR-16

AMERGEN ENERGY COMPANY, LCC, AND

JERSEY CENTRAL POWER & LIGHT COMPANY

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

By letter dated March 21, 2000, as supplemented by letters dated June 14, September 26, and October 16, 2000, GPU Nuclear, Inc., (GPUN) submitted a Technical Specification Change Request (TSCR No. 276) to delete the reporting requirements for the core spray sparger inspection contained in Operating License (OL) Section 2.C.(5) and Technical Specification (TS) Section 6.9.3.d. for the Oyster Creek Nuclear Generating Station (Oyster Creek). The licensee is required to perform an inspection of the core spray sparger and repair assemblies at each refueling outage, to submit results and provide an evaluation of the safety significance of any new or progressing indications, and to obtain NRC authorization before the plant is restarted from a refueling outage. The intent of the proposed amendment request is to provide technical justification for revising Section 2.C.(5) and deleting the reporting requirements in TS Section 6.9.3.d for refueling outage 18R and subsequent outages. As an alternative, the licensee would perform the core spray sparger inspections in accordance with the Boiling-Water Reactor Vessel and Internals Project (BWRVIP) BWRVIP-18, "BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines". The requirement to obtain NRC restart authorization for each refueling outage would be eliminated. The inspection results would be submitted to the NRC as part of the ASME Section XI In-Service Inspection (ISI) Summary as required by BWRVIP-18. The June 14, September 26, and October 16, 2000, letters provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

On the date of the March 21, 2000, application, GPUN was the licensed operator for Oyster Creek. On August 8, 2000, GPUN's ownership interest in Oyster Creek was transferred to AmerGen Energy Company, LLC (AmerGen or the licensee). By letter dated August 10, 2000, AmerGen requested that the U.S. Nuclear Regulatory Commission (NRC) continue to review and act upon all requests before the Commission which had been submitted by GPUN. Accordingly, the NRC staff has completed its review of the requested amendment.

The licensee previously had asked for a similar amendment from the reporting requirement of the core spray sparger inspection in a letter dated October 25, 1995. The licensee's justification for the request was mainly based on the positive inspection results reported from

the 1983 through 1994 inspections. The results of these inspections showed that no significant crack indications were found in the spargers and associated piping and that the repair clamp assemblies were intact. The staff denied the licensee's request in a letter dated June 7, 1996. The staff's denial was based on the consideration that the staff needs to review and approve the inspection methods and results during each refueling outage to ensure that an acceptable safety margin exists in the structural integrity of the degraded core spray sparger, piping, and associated components. As discussed below, the staff's concerns no longer exist with the implementation of the licensee proposed request as adequate guidelines in the scope of inspection, inspection method and flaw evaluation are provided in BWRVIP-18.

2.0 EVALUATION

In OL Section 2.C.(5), the licensee is required to submit the inspection results for staff review at each refueling outage. The purpose of the staff's review is to ensure that the licensee used an acceptable method of inspection and performed the flaw evaluation with adequate safety margins. Furthermore, the licensee needs to obtain authorization from the staff for restart of the plant. The staff notes that the inspection and reporting requirements in OL Section 2.C.(5) are similar to that delineated in Inspection and Enforcement (I&E) Bulletin 80-13, "Cracking in Core Spray Spargers," dated May 12, 1980. The inspections performed in accordance with I&E Bulletin 80-13 have been successful in identifying cracks and flaws in the core spray spargers and piping.

The BWRVIP-18 report contains generic guidelines for the inspection and re-inspection of the core spray spargers, piping, and associated components. It describes piping and sparger locations and categories of plants for which inspection needs would differ. The intent of the subject report was to replace the guidance in I&E Bulletin 80-13 and provide adequate assurance of core spray spargers integrity. On December 2, 1999, the NRC staff approved the BWRVIP-18 report with a safety evaluation containing the staff's comments.

The staff has compared the inspection requirements in OL Section 2.C.(5) to the BWRVIP-18 report and to the staff's BWRVIP-18 SE. The inspection guidelines (as modified) in BWRVIP-18 report are much more comprehensive than Section 2.C.(5). Based on the results of the comparison, the staff has determined that BWRVIP-18, along with the NRC staff's final SE of December 2, 1999, is an acceptable alternative to the inspection requirements requested in OL Section 2.C.(5). The staff's comparison is summarized below:

(1) Scope of Inspection

OL Section 2.C.(5) requires the inspection of all accessible surfaces and welds of both core spray spargers and repair assemblies. Also, BWRVIP-18 requires the inspection of all core spray piping and bracket welds. However, the scope of BWRVIP-18 inspection will focus on the inspection of welds and its adjacent area of heat affected zones (HAZ). The licensee will not inspect the base materials of the piping and spargers away from the weld. The staff finds this acceptable because the base materials are in a solution annealed condition which is resistant to intergranular stress-corrosion cracking (IGSCC). IGSCC has not been found in the base material of the core spray piping and spargers in the more than 15 years that the inspections have been conducted.

(2) Frequency of Inspection

The BWRVIP-18 report allows the inspection of the core spray piping welds to be performed either by ultrasonic examination (UT) or visual examination (VT). However, the spargers will only be inspected by visual examination because of an UT accessibility problem. When visual examination is performed, re-inspection is required every fuel cycle, similar to that required in OL Section 2.C.(5). When UT is performed on the piping welds, the re-inspection is required every two fuel cycles. UT is a volumetric examination method which is capable of detecting cracks initiated from the inner diameter (ID) surface as well as the outer diameter (OD) surface. Therefore, the staff considers UT capable of detecting cracks in earlier stages than VT and encourages UT to be used to supplement the VT examination whenever feasible. The proposed inspection frequency for UT of core spray piping welds is consistent with the frequency specified for the inspection of piping welds on the primary pressure boundary (recirculation piping system) in Generic Letter 88-01. Because the core spray piping inside the reactor vessel is not primary pressure boundary piping, the inspection frequency for ultrasonic examination is considered conservative.

(3) Methods of Inspection

The guidelines for defining acceptable inspection methods are not provided in OL Section 2.C.(5). In the BWRVIP-18 report, two kinds of visual examination methods (Enhanced VT-1 and core spray (CS) CS VT-1) are used for the inspection of core spray piping and sparger welds, depending on the safety consequences of the weld location. The CS VT-1 method is capable of achieving a 1 mil wire resolution. The enhanced VT-1 method is a better method than CS VT-1, capable of achieving ½ mil wire resolution. Therefore, the performance of inspection in accordance with the BWRVIP-18 report will provide reliable results as superior inspection methods (CS VT-1, Enhanced VT-1 or UT) are used in the inspection.

(4) Reporting Requirements

In OL Section 2.C.(5), the licensee is required to submit the inspection method and results as well as the flaw evaluation to the staff for review and approval before returning to operation. In the BWRVIP-18 report, this reporting requirement is not referenced, however, it does apply to the situation when the performance of flaw evaluation and repair design uses methodology and criteria which are not covered in the NRC-approved BWRVIP topical reports. In the early 1980s, there were no NRC-approved methodology and criteria for the flaw evaluation or repair design, and each evaluation or design needed to be reviewed on a case-by-case basis. With the issuance of the NRC-approved generic guidelines in the BWRVIP topical reports for flaw evaluation and repair design, the staff considers that it is not necessary to submit the inspection report before plant startup if the inspection, flaw evaluation or repair design is performed in accordance with the NRC-approved guidelines. However, the licensee should submit the inspection results to the NRC in accordance with the guidelines provided in BWRVIP-18, as approved by the NRC staff's final SE dated December 2, 1999.

The licensee also proposed to delete the requirement of submitting the core spray sparger ISI results for NRC review in TS Section 6.9.3.d. This reporting requirement is referenced in Table 4.3.1. The licensee stated that this deletion is considered to be an editorial change because Table 4.3.1 was deleted in TS Amendment 42 in 1985 with the establishment of a formal ISI program. The staff has determined that the licensee proposed deletion of the reporting requirement in TS Section 6.9.3.d is acceptable because the requirement of submitting the core spray spargers inspection results is covered in OL Section 2.C.(5) which references BWRVIP-18.

The staff has reviewed the licensee's TSCR No. 276 submittal pertaining to the proposed deletion of reporting requirements for core spray sparger inspection at Oyster Creek. The staff finds that inspecting the core spray spargers, piping, and associated components in accordance with BWRVIP-18 and as approved by the NRC staff's final SE dated December 2, 1999, will provide an acceptable level of quality and adequate assurance of the structural integrity of the inspected components. The staff concludes that, with the implementation of the proposed alternative, the deletion of the reporting requirements in OL Section 2.C.(5) and Section 6.9.3.d is acceptable because the licensee will conduct the inspections in accordance with BWRVIP-18 and as approved by the staff. The licensee, pursuant to the agreement with the BWRVIP and its members, should inform the NRC if it intends to deviate from BWRVIP-18 in the future.

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 and changes surveillance requirements. 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 (65 FR 57406). 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.

Principal Contributor: W. Koo

Date: November 3, 2000

AmerGen Energy Company, LLC
Oyster Creek Nuclear Generating Station

cc:

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