

January 24, 2001

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: REVISION TO VENTILATION CHARCOAL ADSORBER
TESTING PROGRAM (TAC NO. MA7804)

Dear Mr. DeGregorio:

The Commission has issued the enclosed Amendment No. 219 to Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated December 1, 1999, as supplemented on September 15, 2000.

On the date of the December 1, 1999, 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 change the standard by which you test charcoal used in engineered safeguards features systems to American Society for Testing and Materials D3803-1989. These revisions are made in accordance with Generic Letter 99-02.

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. 219 to DPR-16
2. Safety Evaluation

cc w/encls: See next page

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PUBLIC	HPastis	ACRS	
PD1-1 Reading	SLittle	WBeckner	GHill, (2)
MGamberoni	OGC	J. Rogge, RI	

DOCUMENT NAME: C:\Amendment TS 270 MA 7804.wpd ML003781504

OFFICE	PM:PD1-1	E	LA:PD1-1	E	OGC		SC:PD1-1		SPLB/BC	
NAME	HPastis		SLittle		MYoung		PTam for MGamberoni		JHannon	
DATE	12/22/00		12/22/00		12/22/00		12/29/00		1/23/01	

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AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 219
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 December 1, 1999, as supplemented on September 15, 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 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. 219 , 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 by Peter S. Tam for/

Marsha Gamberoni, 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: January 24, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 219

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

4.5-4
4.5-5
4.5-9
4.5-10
4.5-11
4.5-12
4.5-13
4.5-14
4.5-15

Insert

4.5-4
4.5-5
4.5-9
4.5-10
4.5-11
4.5-12
4.5-13
4.5-14
4.5-15

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 219

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 1, 1999, as supplemented on September 15, 2000, the GPU Nuclear, Inc. (GPUN) submitted a request for changes to the Oyster Creek Nuclear Generating Station Technical Specifications (TSs). The amendment revises the TSs to change the standard by which you test charcoal used in engineered safeguards features (ESF) systems to American Society for Testing and Materials (ASTM) D3803-1989. These revisions are made in accordance with Generic Letter (GL) 99-02.

The September 15, 2000, letter provided clarifying information within the scope of the original application and did not change the initial proposed no significant hazards consideration determination.

On the date of the December 1, 1999, 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 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.

Safety-related air-cleaning units used in the engineered safety features (ESF) ventilation systems of nuclear power plants reduce the potential onsite and offsite consequences of a radiological accident by filtering radioiodine. Analyses of design basis accidents assume particular safety related charcoal adsorption efficiencies when calculating offsite and control room operator doses. To ensure that the charcoal filters used in these systems will perform in a manner that is consistent with the licensing basis of a facility, licensees have requirements in their TS to periodically perform a laboratory test (in accordance with a test standard) of charcoal samples taken from these ventilation systems.

In GL 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999, the staff alerted licensees about an issue regarding testing nuclear-grade activated charcoal.

Specifically, GL 99-02 informed licensees that testing nuclear-grade activated charcoal to standards other than American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," does not provide assurance for complying with current licensing bases with respect to the dose limits of General Design Criterion (GDC) 19 of Appendix A to Part 50 of Title 10 of the Code of Federal Regulations (10 CFR) and Subpart A of 10 CFR Part 100.

GL 99-02 requested that all licensees determine whether their TS reference ASTM D3803-1989 for charcoal filter laboratory testing. Licensees whose TS do not reference ASTM D3803-1989 were requested to either amend their TS to reference ASTM D3803-1989 or propose an alternative test protocol.

2.0 EVALUATION

The NRC received a letter from ASTM in response to a March 8, 2000, Federal Register notice (65 FR 12286) related to revising testing standards in accordance with ASTM D3803-1989 for laboratory testing of activated charcoal, in response to GL 99-02. ASTM notified the NRC that the 1989 standard is out of date and should be replaced by ASTM D3803-1991 (1998). The staff acknowledges that the most current version of ASTM D3803 is ASTM D3803-1991 (reaffirmed 1998). However, for consistency purposes, it is preferable to have all nuclear power reactors test to the same standard (ASTM D3803-1989) because, prior to the issuance of GL 99-02, about one third of the nuclear reactors had TSs that referenced ASTM D3803-1989 and there were no substantive changes between the 1989 and 1998 versions. Because the NRC staff considers ASTM D3803-1989 to be the most accurate and most realistic protocol for testing charcoal in safety-related ventilation systems, the NRC staff finds that the proposed TS revisions satisfy the actions requested in GL 99-02, and are acceptable.

The NRC staff, with technical assistance from Brookhaven National Laboratory (BNL), has reviewed the licensee's submittals. The staff has reviewed the attached BNL Technical Evaluation Report (TER) regarding the proposed TS changes for Oyster Creek.

The current and proposed laboratory charcoal sample testing TS surveillance requirements for the Oyster Creek Standby Gas Treatment System (SGTS) are shown in Table 1 and Table 2, respectively.

The proposed use of ASTM D3803-1989 is acceptable because it provides accurate and reproducible test results. The proposed test temperature of 30°C and relative humidity (RH) of 95% are acceptable because they are consistent with ASTM D3803-1989. This is consistent with the actions requested in GL 99-02.

The credited efficiency for radioactive organic iodine for the SGTS is 90%. The proposed test penetration for radioactive methyl iodide for the SGTS is $\leq 5\%$. The proposed test penetration was obtained by applying a safety factor of 2 to the credited efficiency. The proposed safety factor is acceptable because it ensures that the efficiency credited in the accident analysis is still valid at the end of the surveillance interval. This is consistent with the minimum safety factor of 2 specified in GL 99-02.

The August 23, 1999 errata to GL 99-02 clarified that if the maximum actual face velocity is greater than 110% of 40 fpm, then the test face velocity should be specified in the TS. By letter

OYSTER CREEK NUCLEAR GENERATING STATION

TABLE 1 - CURRENT TS REQUIREMENTS											
System Description						Current TS Requirements					
TS Section	System	Bed Thickness (inches)	Actual Charcoal		Credited Efficiency (% organic iodine)	Test Penetration (% methyl iodide)	Safety Factor	Test Standard **	Test Temp (° C) **	Test RH (%) **	Test Face Velocity (fpm)
			Res. Time (sec)	Face Velocity (fpm)							
4.5.H.a.(2)	Standby Gas Treatment System (SGTS)	2	0.219	45.72	90	≤ 10	Not stated (1)*	ASTM D3803-1979	30	95	Not stated

* The safety factor is calculated based on the current test penetration and the credited efficiency.

** Based on the current TS.

*** Based on the requirements in accordance with ASTM D3803-1989.

TABLE 2 - PROPOSED TS REQUIREMENTS											
System Description						Proposed TS Requirements					
TS Section	System	Bed Thickness (inches)	Actual Charcoal		Credited Efficiency (% organic iodine)	Test Penetration (%methyl iodide)	Safety Factor	Test Standard	Test Temp (° C)	Test RH (%)	Test Face Velocity (fpm)
			Res. Time (sec)	Face Velocity (fpm)							
4.5.H.a.(2)	Standby Gas Treatment System (SGTS)	2	0.219	45.72	90	≤ 5	2	ASTM D3803-1989	30	95	Not stated (40)***

[illegible]

Kernel: 3.10.0-112.el7.x86_64
CPU: 1 x Intel(R) Xeon(R) CPU E5-2680 v4 @ 2.40GHz
Memory: 64.0 GB
Disk: 100.0 GB
OS: CentOS Linux 7 (Core)
Architecture: x86_64
Kernel: 3.10.0-112.el7.x86_64
CPU: 1 x Intel(R) Xeon(R) CPU E5-2680 v4 @ 2.40GHz
Memory: 64.0 GB
Disk: 100.0 GB
OS: CentOS Linux 7 (Core)
Architecture: x86_64

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