

May 20, 2005

Mr. Christopher M. Crane  
President and Chief Nuclear Officer  
Exelon Nuclear  
Exelon Generation Company, LLC  
200 Exelon Way, KSA 3-E  
Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 - ISSUANCE  
OF AMENDMENT RE: DIESEL GENERATOR SURVEILLANCES (TAC NOS.  
MC3593 AND MC3594)

Dear Mr. Crane:

The Commission has issued the enclosed Amendments Nos. 253 and 256 to Renewed Facility Operating License Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Units 2 and 3. These amendments consist of changes to the Technical Specifications in response to your application dated June 15, 2004, as supplemented January 12, 2005.

These amendments allow changes to Surveillance Requirement (SR) 3.8.1.3, monthly diesel surveillance test; SR 3.8.1.10, diesel full load rejection test; SR 3.8.1.14.3.b, diesel 24-hour run test; and, SR 3.8.1.15, diesel hot restart test, to permit these tests to be run at a higher load up to 2800 kW.

A copy of the safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's Biweekly *Federal Register* Notice.

Sincerely,

/RA/

George F. Wunder, Project Manager, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosures: 1. Amendment No. 253 to Renewed DPR-44  
2. Amendment No. 256 to Renewed DPR-56  
3. Safety Evaluation

cc w/encls: See next page

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ADAMS ACCESSION NUMBER: ML050340096 \*SE input dated January 28, 2005

OFFICE	PM/PD1-2	LA/PD1-2	EEIB/SC*	OGC	SC/PD1-2
NAME	GWunder	MO'Brien	RJenkins	SBrock	DRoberts
DATE	5/19/05	5/19/05	1/28/05	4/20/05	5/19/05

OFFICIAL RECORD COPY

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EXELON GENERATION COMPANY, LLC

PSEG NUCLEAR LLC

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 253  
Renewed License No. DPR-44

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon Generation Company), and PSEG Nuclear LLC (the licensees), dated June 15, 2004, as supplemented January 12, 2005, 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 Renewed Facility Operating License No. DPR-44 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 253, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Darrell Roberts, Chief, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: May 20, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 253

RENEWED FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

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

<u>Remove</u>	<u>Insert</u>
3.8-8	3.8-8
3.8-10	3.8-10
3.8-14	3.8-14
3.8-15	3.8-15
B 3.8-31	B 3.8-31

EXELON GENERATION COMPANY, LLC

PSEG NUCLEAR LLC

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 256  
Renewed License No. DPR-56

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon Generation Company), and PSEG Nuclear LLC (the licensees), dated June 15, 2004, as supplemented January 12, 2005, 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 Renewed Facility Operating License No. DPR-56 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 256, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Darrell Roberts, Chief, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: May 20, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 256

RENEWED FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

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

<u>Remove</u>	<u>Insert</u>
3.8-8	3.8-8
3.8-10	3.8-10
3.8-14	3.8-14
3.8-15	3.8-15
B 3.8-31	B 3.8-31

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 253 TO RENEWED FACILITY OPERATING  
LICENSE NO. DPR-44 AND AMENDMENT NO. 256 TO RENEWED FACILITY OPERATING  
LICENSE NO. DPR-56  
EXELON GENERATION COMPANY, LLC  
PSEG NUCLEAR LLC  
PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3  
DOCKET NOS. 50-277 AND 50-278

## 1.0 INTRODUCTION

By application dated June 15, 2004, as supplemented by letter dated January 12, 2005, Exelon Generation Company, LLC (the licensee) requested changes to the Technical Specifications (TSs) for Peach Bottom Atomic Power Station, Units 2 and 3 (PBAPS). The January 12, 2005, supplement provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on July 20, 2004, (69 FR 43461).

The proposed changes to the TSs would revise Surveillance Requirement (SR) 3.8.1.3, monthly diesel surveillance test; SR 3.8.1.10, diesel full load rejection test; SR 3.8.1.14.3.b, diesel 24-hour run test; and, SR 3.8.1.15, diesel hot restart test, to permit these tests to be run at a higher load up to 2800 kW. The diesel generators (DGs) are part of the on-site power system.

## 2.0 REGULATORY EVALUATION

General Design Criterion (GDC) 17, "Electric power systems," of Appendix A, "General Design Criteria for Nuclear Power Plants," Part 50, of Title 10 of the *Code of Federal Regulations* (10 CFR) 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, this criterion 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. Section 50.36, "Technical specifications," requires a licensee's TSs to establish SRs, which include tests, calibrations or inspections to ensure that the necessary quality of systems and components are maintained, that facility operations will be within safety limits and that the limiting conditions for operation will be met.

The onsite Class 1E alternating current (AC) distribution system for each Peach Bottom unit is divided into four load groups in two divisions with each load group powered by a dedicated DG so that the loss of any one group does not prevent the minimum safety functions from being performed. Each division has connections to the offsite power sources and two DG units, one in each load group.

The onsite standby power system includes Class 1E AC and direct current power supplies for equipment used to achieve and maintain the plant in cold shutdown and to mitigate the consequences of a design-basis accident. With regard to the Class 1E AC power, each of the Class 1E load groups, at the 4.16-kV bus level, is capable of being powered from an independent DG (one per load group) which functions to provide power in the event of a loss of the preferred (offsite) power source. Each DG powers one load group in both Unit 2 and Unit 3.

In the event of a loss-of-coolant accident and/or loss of offsite power, DG(s) automatically start and load via the DG control circuitry. GDCs 34, 35, 38, 41, and 44 require the onsite power supply DGs be available to power the required loads for residual heat removal, emergency core cooling, containment heat removal, containment atmosphere cleanup and cooling water to transfer heat loads to the ultimate heat sink.

### 3.0 TECHNICAL EVALUATION

The license amendment request (LAR) indicated that the continuous rating for the Peach Bottom DGs is 2600 kW and the 2000-hour rating is 3000 kW. The LAR stated that running the diesels above the continuous rating, up to 2800 kW, has been discussed with the original equipment supplier, Fairbanks Morse. The LAR also indicated that the increased rate of wear on the diesel considering the operating time of no greater than 400 hours in the 2000-hour rating operating range (during surveillance and testing), coupled with the Peach Bottom Units 2 and 3 DG post-accident mission time, is expected to be well within the capability of the machine.

The Peach Bottom Updated Final Safety Analysis Report (UFSAR), Section 8.5, describes the loading of the Peach Bottom DGs under different loading conditions and indicates all DGs would be operating above the continuous rating. The UFSAR also indicates the existence of an onsite fuel supply capable of feeding the DGs for 7 days at the accident loading. The staff requested the licensee to identify the Peach Bottom DG post-accident mission time, including the mission time for the above noted safety functions required by the GDC noted, and describe the DG design loading during that time to quantify the potential loading on the DGs between maintenance intervals required by the supplier. The licensee responded that the mission time is not defined in any licensing document. However, based on the overload capability equation supplied by the DG manufacturer and the maximum loading rate after 1 hour, as indicated in UFSAR Table 8.5-2, "Summary of Loading, Diesel Generators and Emergency Buses,

Safeguard and Selected Non-Safeguard Loads,” the DG could operate in excess of 50 days in the post-accident mode without requiring a maintenance shutdown.

The DG supplier agreed that the 400 hours operating at 2800 kW for surveillance and testing activities and the 50 days post-accident mission time will not result in additional maintenance on the DGs.

The staff reviewed the licensee’s submittal and determined the following:

1. Each DG has a defined emergency rating. In the case of Peach Bottom, the 2000-hour rating is 3000 kW and the 200-hour rating is 3100 kW.
2. The licensee’s Technical Requirements Manual (TRM) requires a detailed inspection of the EDG every 2 years. This inspection would identify any excessive wear. The total number of hours that an EDG would be run for surveillances in a 2 year period is about 200 hours. Changes to the TRM are controlled by the licensee’s 10 CFR 50.59 process.
3. The licensee has consulted with the DG supplier, who has agreed that the 400 hours of operating at 2800 kW, in addition to 50 days of post-accident operation, will be acceptable under the standard maintenance schedule.

Based on these findings, the staff determined that the licensee’s proposed amendment is acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission’s regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change the surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (69 FR 43461). Accordingly, the amendments meet 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 amendments.

## 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: G. Morris

Date: May 20, 2005