



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 17, 2010

Mr. Michael J. Pacilio
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNIT NOS. 2 AND 3:
ENVIRONMENTAL ASSESSMENT REGARDING THE REQUEST FOR
EXEMPTIONS FROM TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS*
PART 50, APPENDIX R, SECTION III.G FOR THE USE OF OPERATOR
MANUAL ACTIONS (TAC NOS. ME8055 AND ME8056)

Dear Mr. Pacilio:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated March 6, 2009, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090680141), as supplemented on February 12, 2010 (ADAMS Accession No. ML100470774). The application requests exemptions for Peach Bottom Atomic Power Station, Unit Nos. 2 and 3 from certain technical requirements of Title 10 of the *Code of Federal Regulations* Part 50, Appendix R, Section III.G for the use of operator manual actions in lieu of meeting the circuit separation and protection requirements contained in Section III.G.2 for 11 Fire Areas at the plant.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in black ink, reading "John D. Hughey", is positioned above the typed name.

John D. Hughey, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosure:
Environmental Assessment

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NUCLEAR REGULATORY COMMISSION
EXELON GENERATION COMPANY, LLC
DOCKET NOS. 50-277 AND 50-278
PEACH BOTTOM ATOMIC POWER STATION UNIT NOS. 2 AND 3
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT
[NRC-2010-xxxx]

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption from Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix R, Section III.G, "Fire Protection of Safe Shutdown Capability," for the use of operator manual actions (OMAs) in lieu of the requirements specified in Appendix R, Section III.G.2, for Renewed Facility Operating License Nos. DPR-44 and DPR-56, issued to Exelon Generation Company, LLC (the licensee), for operation of Peach Bottom Atomic Power Station (PBAPS), Unit Nos. 2 and 3, located in York and Lancaster Counties, Pennsylvania. Therefore, as required by 10 CFR 51.21, the NRC performed an environmental assessment. Based on the results of the environmental assessment, the NRC is issuing a finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would grant an exemption to 10 CFR Part 50, Appendix R, Section III.G.2 (III.G.2) for the use of OMAs contained in the licensee's Fire Protection Program (FPP) in lieu of certain technical requirements contained in III.G.2. The licensee's FPP requires that the identified operator manual actions be performed outside of the control room to achieve shutdown of the reactor following fires in certain fire areas in the plant. The licensee states that

the documentation provided in the submitted exemption request for PBAPS, Unit Nos. 2 and 3, demonstrates the feasibility and reliability of the identified OMAs.

The proposed action is in accordance with the licensee's application dated March 6, 2009, as supplemented by letter dated February 12, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML090680141 and ML100470774, respectively).

The Need for the Proposed Action:

The proposed exemption requests the use of OMAs in lieu of meeting the circuit separation and protection requirements contained in III.G.2 for 11 fire areas described in the PBAPS FPP. The OMAs consist of a sequence of tasks that are initiated upon confirmation of a fire in the associated fire area. The proposed exemption is necessary because the crediting of OMAs to achieve and maintain hot shutdown of the reactor is not addressed in 10 CFR 50, Appendix R, Section III.G.2, and an exemption is therefore required in accordance with 10 CFR 50.12.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation for the proposed action and concludes that the OMAs addressed in the application are feasible and can be reliably performed. Further, the NRC concludes that the licensee has demonstrated sufficient defense-in-depth such that identified preventative and protective measures in addition to the specified OMAs demonstrate the licensee's ability to preserve or maintain safe shutdown capability in the event of a fire in the analyzed fire areas.

The details of the NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to 10 CFR Part 50, Appendix R, Section III.G.2.

The proposed action will not significantly increase the probability or consequences of accidents. No changes are being made in the types of effluents that may be released offsite. There is no significant increase in the amount of any effluent released offsite. There is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

Based on the nature of the exemption, the proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Stevens Act are expected. There are no impacts to the air or ambient air quality. There are no impacts to historic and cultural resources. There would be no noticeable effect on socioeconomic conditions in the region. Therefore, no changes or different types of non-radiological environmental impacts are expected as a result of the proposed action. Accordingly, the NRC staff concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the NRC staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would not result in a decrease in current environmental impacts. If the proposed action was denied, the licensee would have to perform plant modifications to achieve compliance. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those previously considered in the Final Environmental Statement for PBAPS Unit Nos. 1, 2, and 3, dated April

1973, and for PBAPS Unit Nos. 2 and 3, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," (NUREG-1437, Supplement 10), dated January 2003.

Agencies and Persons Consulted:

In accordance with its stated policy, on September xx, 2010, the NRC staff consulted with the Pennsylvania State official, Bradley Fuller, of the Pennsylvania State Department of Environmental Protection, regarding the environmental impact of the proposed action. The State official had no comments.

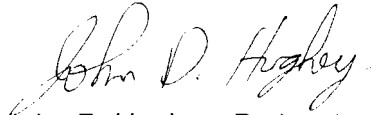
FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated March 6, 2009, as supplemented on February 12, 2010 (ADAMS Accession Nos. ML090680141 and ML100470774, respectively). Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Room O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the ADAMS Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737, or send an e-mail to pdr.resource@nrc.gov.

Dated at Rockville, Maryland, this 17th day of September 2010.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, reading "John D. Hughey". The signature is written in a cursive style with a horizontal line extending from the end.

John D. Hughey, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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Sincerely,

/ra/

John D. Hughey, Project Manager
Plant Licensing Branch I-2
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Docket Nos. 50-277 and 50-278

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Environmental Assessment

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DATE	09/10/2010	09/02/2010 9/10/2010	09/07/2010	09/16/2010	09/17/2010

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