



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

April 1, 2014

Ms. Mary G. Korsnick
Acting Chief Executive Officer and Chief Nuclear Officer
Constellation Energy Nuclear Group, LLC
100 Constellation Way, Suite 200C
Baltimore, MD 21202

Mr. Bryan P. Wright
Senior Vice President and Chief Financial Officer
Constellation Energy Nuclear Group, LLC
100 Constellation Way, Suite 200C
Baltimore, MD 21202

**SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 –
ISSUANCE OF AMENDMENTS TO CONFORM THE RENEWED FACILITY
OPERATING LICENSES AND MATERIALS LICENSE TO REFLECT THE
DIRECT TRANSFER OF OPERATING AUTHORITY (TAC NOS. MF2584,
MF2585, AND L24780)**

Dear Ms. Korsnick and Mr. Wright:


The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 305 and 283 to Renewed Facility Operating License Nos. DPR-53 and DPR-69 for Calvert Cliffs Nuclear Power Plant Unit Nos. 1 and 2, and Amendment No. 10 to Materials License No. SNM-2505 for the Calvert Cliffs Independent Spent Fuel Storage Installation. The amendments consist of changes to reflect the direct transfer of operating authority from Calvert Cliffs Nuclear Power Plant, LLC to Exelon Generation Company, LLC, as approved by Order dated March 24, 2014.

M. Korsnick and B. Wright

- 2 -

The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nadiyah S. Morgan', with a long horizontal flourish extending to the right.

Nadiyah S. Morgan, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-317, 50-318, and 72-8

Enclosures:

1. Amendment No. 305 to DPR-53
2. Amendment No. 283 to DPR-69
3. Amendment No. 10 to SNM-2505

cc w/encls:

Mr. George H. Gellrich, Vice President
Calvert Cliffs Nuclear Power Plant, Inc.
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

Additional Distribution via ListServ



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

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 305
Renewed License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Calvert Cliffs Nuclear Power Plant, LLC (the licensee), dated August 6, 2013, as supplemented by letters and emails dated August 14, 2013, September 23 and 26, 2013, December 17, 2013, January 9, 2014, and February 5, 10, 14, and 21, 2014, 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 as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read 'Eric J. Leeds', is written over the printed name and title.

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and
Appendix C

Date of Issuance: April 1, 2014

ATTACHMENT TO LICENSE AMENDMENT NO. 305

RENEWED FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Replace the following pages of the Renewed Facility Operating License with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

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Replace the following pages of Appendix C, "Additional Conditions," with the attached revised pages. The revised pages are identified by amendment number and contain a marginal line indicating the areas of change.

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**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-00001

RENEWED FACILITY OPERATING LICENSE

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 1

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-317

Renewed License No. DPR-53

1. The U.S. Nuclear Regulatory Commission (Commission), having previously made the findings set forth in License No. DPR-53 issued on July 31, 1974, has now found that:
 - A. The application to Renewed License No. DPR-53 filed by Baltimore Gas and Electric Company* 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, and all required notifications to other agencies or bodies have been duly made;
 - B. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the Calvert Cliffs Nuclear Power Plant, Unit 1 (facility), and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
 - C. There is reasonable assurance: (i) that the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the applicable regulations set forth in 10 CFR Chapter I, except as exempted from compliance;

*By Order dated October 9, 2009, as superseded by Order dated October 30, 2009, the transfer of this license to Calvert Cliffs Nuclear Power Plant, LLC, was approved. By Order dated _____, the transfer of the operating authority under this license to Exelon Generation Company, LLC was approved.

- D. The Calvert Cliffs Nuclear Power Plant, LLC and Exelon Generation, LLC** (Exelon Generation) have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements";
 - E. The renewal of this license will not be inimical to the common defense and security or the health and safety of the public; and
 - F. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs, and considering available alternatives, the renewal of this license is in accordance with 10 CFR Part 51 and all applicable requirements have been satisfied.
2. On the basis of the foregoing findings regarding this facility, Facility Operating License No. DPR-53, issued on July 31, 1974, is superseded by Renewed Facility Operating License No. DPR-53, which is hereby issued to Calvert Cliffs Nuclear Power Plant, LLC and Exelon Generation to read as follows:
- A. This license applies to the Calvert Cliffs Nuclear Power Plant, Unit 1, a pressurized water reactor and associated equipment (the facility), owned by Calvert Cliffs Nuclear Power Plant, LLC. The facility is located in Calvert County, Maryland, and is described in the Final Safety Analysis Report (FSAR), as supplemented and amended, and the Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," (a) Calvert Cliffs Nuclear Power Plant, LLC to possess, and (b) Exelon Generation to possess, use, and operate the facility at the designated location in Calvert County, Maryland, in accordance with the procedures and limitations set forth in this license;
 - (2) Exelon Generation pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, and described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

**Exelon Generation is authorized to act for Calvert Cliffs Nuclear Power Plant, LLC and has exclusive responsibility and control over the physical possession, operation, and maintenance of the facility.

- (4) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (5) Exelon Generation pursuant to the Act and 10 CFR Parts 30 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license is deemed to contain and is subject to the conditions set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act, and the rules, regulations, and orders of the Commission, now or hereafter applicable; and is subject to the additional conditions specified and incorporated below:
- (1) Maximum Power Level

Exelon Generation is authorized to operate the facility at steady-state reactor core power levels not in excess of 2737 megawatts-thermal in accordance with the conditions specified herein.
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 305, are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Technical Specifications.

 - (a) For Surveillance Requirements (SRs) that are new, in Amendment 227 to Facility Operating License No. DPR-53, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 227. For SRs that existed prior to Amendment 227, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 227.
 - (3) Additional Conditions

The Additional Conditions contained in Appendix C as revised through Amendment No. 297 are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Additional Conditions.
 - (4) Secondary Water Chemistry Monitoring Program

Exelon Generation shall implement a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include:

- a. Identification of a sampling schedule for the critical parameters and control points for these parameters;
- b. Identification of the procedures used to quantify parameters that are critical to control points;
- c. Identification of process sampling points;
- d. Procedure for recording and management of data;
- e. Procedures defining corrective actions for off control point chemistry conditions; and
- f. A procedure identifying the authority responsible for the interpretation of the data and the sequence and timing of administrative events required to initiate corrective action.

(5) Mitigation Strategy

Exelon Generation shall develop and maintain strategies for addressing large fires and explosions that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 - 1. Pre-defined coordinated fire response strategy and guidance
 - 2. Assessment of mutual aid fire fighting assets
 - 3. Designated staging areas for equipment and materials
 - 4. Command and control
 - 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
 - 1. Protection and use of personnel assets
 - 2. Communications
 - 3. Minimizing fire spread
 - 4. Procedures for implementing integrated fire response strategy
 - 5. Identification of readily available pre-staged equipment
 - 6. Training on integrated fire response strategy
 - 7. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
 - 1. Water spray scrubbing
 - 2. Dose to onsite responders

- D. Exelon Generation shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of

10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Calvert Cliffs Nuclear Power Plant Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 1" submitted May 19, 2006.

Exelon Generation shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 298.

- E. Exelon Generation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report for the facility and as approved in the SER dated September 14, 1979 and Supplements dated October 2, 1980; March 18, 1982; and September 27, 1982; and Exemptions dated August 16, 1982; April 21, 1983; March 15, 1984; August 22, 1990; and April 7, 1999 subject to the following provision: Exelon Generation may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.
- F. At the time of the next scheduled update to the FSAR required pursuant to 10 CFR 50.71(e)(4) following the issuance of this renewed license, Exelon Generation shall update the FSAR to include the FSAR supplement submitted pursuant to 10 CFR 54.21(d), as amended and supplemented by the program descriptions in Appendix E to the Safety Evaluation Report, NUREG-1705. Until that FSAR update is complete, Exelon Generation may make changes to the programs described in Appendix E without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.
- G. Any future actions listed in Appendix E to the Safety Evaluation Report, NUREG-1705, shall be included in the FSAR. Exelon Generation shall complete these actions by July 31, 2014, except for the volumetric inspections of the control element drive mechanisms, which must be completed no later than 2029 for Unit 1 (Appendix E, Item 65).
- H. This renewed license is effective as of the date of issuance and shall expire at midnight on July 31, 2034.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Attachments:

Appendix A – Technical Specifications

Appendix B – Environmental Protection Plan (non-radiological) Technical Specifications

Appendix C – Additional Conditions

Date of Issuance: March 23, 2000

Appendix C

Additional Conditions

Facility Operating License No. DPR-53

Exelon Generation Company, LLC (the licensee or Company) shall comply with the following conditions on the schedule noted below:

<u>Amendment Number</u>	<u>Additional Condition</u>	<u>Implementation Date</u>
227	Baltimore Gas and Electric Company (BGE) is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this Amendment shall include the relocation of these requirements to the appropriate documents as described in the licensee's application dated December 4, 1996, as supplemented by letters dated March 27, June 9, June 18, July 21, August 14, August 19, September 10, October 6, October 20, October 23, November 5, 1997, and January 12, January 28, and March 16, 1998, evaluated in the NRC staff's Safety Evaluation enclosed with this amendment.	This amendment is effective immediately and shall be implemented by August 31, 1998.
228	BGE is authorized to incorporate in the UFSAR certain changes regarding Main Steam Line Break, Steam Generator Tube Rupture, Seized Rotor, and Boron Dilution Analyses.	The updated UFSAR shall be implemented within 6 months after restart from the spring 1998 refueling outage.
237	The decommissioning trust agreement for Calvert Cliffs, Unit 1 at the time the license transfer to the licensee from BGE is effected, is subject to the following: (a) The decommissioning trust agreement must be in a form acceptable to the NRC.	To be implemented at time the license transfer to the licensee from BGE is effected.

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-53

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
305	<p>1) The existing E.D.F. International S.A.S. Support Agreement of approximately \$145 million, dated November 6, 2009, may not be amended or modified without 30 days prior written notice to the Director of the Office of Nuclear Reactor Regulation or his designee. Calvert Cliffs Nuclear Power Plant, LLC, CENG, or Exelon Generation shall not take any action to cause E.D.F. International S.A.S., or its successors and assigns, to void, cancel, or materially modify the E.D.F. International S.A.S. Support Agreement or cause it to fail to perform, or impair its performance under the E.D.F. International S.A.S. Support Agreement, without the prior written consent of the NRC. Exelon Generation shall inform the NRC in writing no later than 14 days after any funds are provided to or for the CENG subsidiary licensee under the E.D.F. International S.A.S. Support Agreement.</p>	<p>To be implemented at the time the license transfer to the licensee from CCNPP, LLC is effected.</p>

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-53

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
	<p>2) Exelon Corporation shall, no later than the time the license transfers occur, enter into a Support Agreement of approximately \$245 million with the licensee. The Exelon Corporation Support Agreement shall supersede the Support Agreement provided by Exelon Generation, dated March 12, 2012, in all respects and shall be consistent with the representations contained in the August 6, 2013 transfer application. Calvert Cliffs Nuclear Power Plant, LLC, CENG, or Exelon Generation shall not take any action to cause Exelon Corporation, or its successors and assigns, to void, cancel, or materially modify the Exelon Corporation Support Agreement or cause it to fail to perform, or impair its performance under the Exelon Corporation Support Agreement, without the prior written consent of the NRC. The Exelon Corporation Support Agreement may not be amended or modified without 30 days prior written notice to the Director of the Office of Nuclear Reactor Regulation or his designee. An executed copy of the Exelon Corporation Support Agreement shall be submitted to the NRC no later than 30 days after the completion of the proposed transaction and license transfers. Exelon Generation shall inform the NRC in writing no later than 14 days after any funds are provided to or for the licensee under the Exelon Corporation Support Agreement.</p>	

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-53

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
	<p>3) Exelon Corporation shall, no later than the time the license transfers occur, provide a parent guarantee in the amount of \$165 million to ensure a source of funds for the Ginna, Calvert Cliffs 1 and 2, and/or Nine Mile Point 1 and 2 in the event that the existing cash pool between the Owner-Licensees and CENG is insufficient to cover operating costs. The existing CENG cash pool arrangement shall be consistent with the representations contained in the 2009 Transfer Application dated January 22, 2009 (ADAMS Accession No. ML090290101). Calvert Cliffs Nuclear Power Plant, LLC, CENG, or Exelon Generation shall not take any action to cause Exelon Corporation, or its successors and assigns, to void, cancel or materially modify the parent guarantee or cause it to fail to perform, or impair its performance under the parent guarantee without the prior written consent of the NRC.</p> <p>4) Within 14 days of the license transfers, Exelon Generation shall submit to the NRC the Nuclear Operating Services Agreement reflecting the terms set forth in the application dated August 6, 2013. Section 7.1 of the Nuclear Operating Services Agreement may not be modified in any material respect related to financial arrangements that would adversely impact the ability of the licensee to fund safety-related activities authorized by the license without the prior written consent of the Director of the Office of Nuclear Reactor Regulation.</p> <p>5) Within 10 days of the license transfers, Exelon Generation shall submit to the NRC the amended CENG Operating Agreement reflecting the terms set forth in the application dated August 6, 2013. The amended and restated Operating Agreement may not be modified in any material respect concerning decisionmaking authority over safety, security and reliability without the prior written consent of the Director of the Office of Nuclear Reactor Regulation.</p> <p>6) At least half the members of the CENG Board of Directors must be U.S. citizens.</p>	

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-53

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
	<p>7) The CENG Chief Executive Officer, Chief Nuclear Officer, and Chairman of the CENG Board of Directors must be U.S. citizens. These individuals shall have the responsibility and exclusive authority to ensure and shall ensure that the business and activities of CENG with respect to the facility's license are at all times conducted in a manner consistent with the public health and safety and common defense and security of the United States.</p> <p>8) CENG will retain its Nuclear Advisory Committee (NAC) composed of U.S. citizens who are not officers, directors, or employees of CENG, EDF Inc., Constellation Nuclear, LLC, or CE Nuclear, LLC. The NAC will report to, and provide transparency to, the NRC and other U.S. governmental agencies regarding foreign ownership and control of nuclear operations.</p> <p>9) The NAC shall prepare an annual report regarding the status of foreign ownership, control, or domination of the licensed activities of power reactors under the control, in whole or part, of CENG. The NAC report shall be submitted to the NRC within 30 days of completion, or by January 31 of each year (whichever occurs first). No action shall be taken by CENG or any entity to cause Constellation Nuclear, LLC, Exelon Generation, or their parent companies, subsidiaries or successors to modify the NAC report before submission to the NRC. The NAC report shall be made available to the public, with the potential exception of information that meets the requirements for withholding such information from public disclosure under the regulations of 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."</p>	



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

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 283
Renewed License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Calvert Cliffs Nuclear Power Plant, LLC (the licensee), dated August 6, 2013, as supplemented by letters and emails dated August 14, 2013, September 23 and 26, 2013, December 17, 2013, January 9, 2014, and February 5, 10, 14, and 21, 2014, 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 as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "E. J. Leeds", written over a horizontal line.

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and
Appendix C

Date of Issuance: April 1, 2014

ATTACHMENT TO LICENSE AMENDMENT NO. 283

RENEWED FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NO. 50-318

Replace the following pages of the Renewed Facility Operating License with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

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Replace the following pages of Appendix C, "Additional Conditions," with the attached revised pages. The revised pages are identified by amendment number and contain a marginal line indicating the areas of change.

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

RENEWED FACILITY OPERATING LICENSE
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2
CALVERT CLIFFS NUCLEAR POWER PLANT, LLC
EXELON GENERATION COMPANY, LLC
DOCKET NO. 50-318

Renewed License No. DPR-69

1. The U.S. Nuclear Regulatory Commission (Commission), having previously made the findings set forth in License No. DPR-69 issued on November 30, 1976, has now found that:
 - A. The application to Renewed License No. DPR-69 filed by Baltimore Gas and Electric Company* 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, and all required notifications to other agencies or bodies have been duly made;
 - B. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the Calvert Cliffs Nuclear Power Plant, Unit 2 (facility), and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
 - C. There is reasonable assurance: (i) that the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the applicable regulations set forth in 10 CFR Chapter I, except as exempted from compliance;

*By Order dated October 9, 2009, as superseded by Order dated October 30, 2009, the transfer of this license to Calvert Cliffs Nuclear Power Plant, LLC, was approved. By Order dated _____, the transfer of the operating authority under this license to Exelon Generation Company, LLC was approved.

- D. The Calvert Cliffs Nuclear Power Plant, LLC and Exelon Generation Company, LLC** (Exelon Generation) have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements";
 - E. The renewal of this license will not be inimical to the common defense and security or the health and safety of the public; and
 - F. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs, and considering available alternatives, the renewal of this license is in accordance with 10 CFR Part 51 and all applicable requirements have been satisfied.
2. On the basis of the foregoing findings regarding this facility, Facility Operating License No. DPR-69, issued on November 30, 1976, is superseded by Renewed Facility Operating License No. DPR-69, which is hereby issued to Calvert Cliffs Nuclear Power Plant, LLC and Exelon Generation to read as follows:
- A. This license applies to the Calvert Cliffs Nuclear Power Plant, Unit 2, a pressurized water reactor and associated equipment (the facility), owned by Calvert Cliffs Nuclear Power Plant, LLC. The facility is located in Calvert County, Maryland, and is described in the Final Safety Analysis Report (FSAR), as supplemented and amended, and the Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," (a) Calvert Cliffs Nuclear Power Plant, LLC to possess, and (b) Exelon Generation to possess, use, and operate the facility at the designated location in Calvert County, Maryland, in accordance with the procedures and limitations set forth in this license;
 - (2) Exelon Generation pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, and described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

**Exelon Generation is authorized to act for Calvert Cliffs Nuclear Power Plant, LLC and has exclusive responsibility and control over the physical possession, operation, and maintenance of the facility.

- (4) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Exelon Generation pursuant to the Act and 10 CFR Parts 30 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license is deemed to contain and is subject to the conditions set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act, and the rules, regulations, and orders of the Commission, now and hereafter applicable; and is subject to the additional conditions specified and incorporated below:

(1) Maximum Power Level

Exelon Generation is authorized to operate the facility at reactor steady-state core power levels not in excess of 2737 megawatts-thermal in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 283 are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (a) For Surveillance Requirements (SRs) that are new, in Amendment 201 to Facility Operating License No. DPR-69, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 201. For SRs that existed prior to Amendment 201, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 201.

(3) Less Than Four Pump Operation

The licensee shall not operate the reactor at power levels in excess of five (5) percent of rated thermal power with less than four (4) reactor coolant pumps in operation. This condition shall remain in effect until the licensee has submitted safety analyses for less than four pump operation, and approval for such operation has been granted by the Commission by amendment of this license.

(4) Environmental Monitoring Program

If harmful effects or evidence of irreversible damage are detected by the biological monitoring program, hydrological monitoring program, and the radiological monitoring program specified in the Appendix B Technical

Specifications, Exelon Generation the licensee will provide to the staff a detailed analysis of the problem and a program of remedial action to be taken to eliminate or significantly reduce the detrimental effects or damage.

(5) Additional Conditions

The Additional Conditions contained in Appendix C as revised through Amendment No. 280 are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Additional Conditions.

(6) Secondary Water Chemistry Monitoring Program

Exelon Generation shall implement a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include:

- a. Identification of a sampling schedule for the critical parameters and control points for these parameters;
- b. Identification of the procedures used to quantify parameters that are critical to control points;
- c. Identification of process sampling points;
- d. Procedure for recording and management of data;
- e. Procedures defining corrective actions for off control point chemistry conditions; and
- f. A procedure identifying the authority responsible for the interpretation of the data and the sequence and timing of administrative events required to initiate corrective action.

(7) Mitigation Strategy

Exelon Generation shall develop and maintain strategies for addressing large fires and explosions that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 1. Pre-defined coordinated fire response strategy and guidance
 2. Assessment of mutual aid fire fighting assets
 3. Designated staging areas for equipment and materials
 4. Command and control
 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
 1. Protection and use of personnel assets

2. Communications
3. Minimizing fire spread
4. Procedures for implementing integrated fire response strategy
5. Identification of readily available pre-staged equipment
6. Training on integrated fire response strategy
7. Spent fuel pool mitigation measures

(c) Actions to minimize release to include consideration of:

1. Water spray scrubbing
2. Dose to onsite responders

- D. Exelon Generation shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Calvert Cliffs Nuclear Power Plant Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 1" submitted dated May 19, 2006.

Exelon Generation shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 275.

- E. Exelon Generation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report for the facility and as approved in the SER dated September 14, 1979, and Supplements dated October 2, 1980; March 18, 1982; and September 27, 1982; and Exemptions dated August 16, 1982; April 21, 1983; March 15, 1984; August 22, 1990; and April 7, 1999 subject to the following provision: Exelon Generation may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- F. At the time of the next scheduled update to the FSAR required pursuant to 10 CFR 50.71(e)(4) following the issuance of this renewed license, Exelon Generation shall update the FSAR to include the FSAR supplement submitted pursuant to 10 CFR 54.21(d), as amended and supplemented by the program descriptions in Appendix E to the Safety Evaluation Report, NUREG-1705. Until that FSAR update is complete, Exelon Generation may make changes to the programs described in Appendix E without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

- G. Any future actions listed in Appendix E to the Safety Evaluation Report, NUREG-1705, shall be included in the FSAR. Exelon Generation shall complete these actions by August 13, 2016.

- H. This renewed license is effective as of the date of issuance and shall expire at midnight on August 13, 2036.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Attachments:

Appendix A – Technical Specifications
Appendix B – Environmental Protection Plan (non-radiological) Technical Specifications
Appendix C – Additional Conditions

Date of Issuance: March 23, 2000

Appendix C

Additional Conditions

Facility Operating License No. DPR-69

Exelon Generation Company, LLC (the licensee or Company) shall comply with the following conditions on the schedule noted below:

<u>Amendment Number</u>	<u>Additional Condition</u>	<u>Implementation Date</u>
201	Baltimore Gas and Electric Company (BGE) is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents as described in the licensee's application dated December 4, 1996, as supplemented by letters dated March 27, June 9, June 18, July 21, August 14, August 19, September 10, October 6, October 20, October 23, November 5, 1997, and January 12, January 28, and March 16, 1998, evaluated in the NRC staff's Safety Evaluation enclosed with this amendment.	This amendment is effective immediately and shall be implemented by August 31, 1998.
202	BGE is authorized to incorporate certain changes in the UFSAR regarding Main Steam Line Break, Steam Generator Tube Rupture, Seized Rotor, and Boron Dilution Analyses.	The updated UFSAR shall be implemented within 6 months after restart from the spring 1999 refueling outage.
211	<p>The decommissioning trust agreement for Calvert Cliffs, Unit 2 at the time the license transfer to the licensee from BGE is effected, is subject to the following:</p> <p>(a) The decommissioning trust agreement must be in a form acceptable to the NRC.</p>	To be implemented at time the license transfer to the licensee from BGE is effected.

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-69

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
283	<p>1) The existing E.D.F. International S.A.S. Support Agreement of approximately \$145 million, dated November 6, 2009, may not be amended or modified without 30 days prior written notice to the Director of the Office of Nuclear Reactor Regulation or his designee. Calvert Cliffs Nuclear Power Plant, LLC, CENG, or Exelon Generation shall not take any action to cause E.D.F. International S.A.S., or its successors and assigns, to void, cancel, or materially modify the E.D.F. International S.A.S. Support Agreement or cause it to fail to perform, or impair its performance under the E.D.F. International S.A.S. Support Agreement, without the prior written consent of the NRC. Exelon Generation shall inform the NRC in writing no later than 14 days after any funds are provided to or for the CENG subsidiary licensee under the E.D.F. International S.A.S. Support Agreement.</p>	<p>To be implemented at the time the license transfer to the licensee from CCNPP, LLC is effected.</p>

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-69

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
	<p>2) Exelon Corporation shall, no later than the time the license transfers occur, enter into a Support Agreement of approximately \$245 million with the licensee. The Exelon Corporation Support Agreement shall supersede the Support Agreement provided by Exelon Generation, dated March 12, 2012, in all respects and shall be consistent with the representations contained in the August 6, 2013 transfer application. Calvert Cliffs Nuclear Power Plant, LLC, CENG, or Exelon Generation shall not take any action to cause Exelon Corporation, or its successors and assigns, to void, cancel, or materially modify the Exelon Corporation Support Agreement or cause it to fail to perform, or impair its performance under the Exelon Corporation Support Agreement, without the prior written consent of the NRC. The Exelon Corporation Support Agreement may not be amended or modified without 30 days prior written notice to the Director of the Office of Nuclear Reactor Regulation or his designee. An executed copy of the Exelon Corporation Support Agreement shall be submitted to the NRC no later than 30 days after the completion of the proposed transaction and license transfers. Exelon Generation shall inform the NRC in writing no later than 14 days after any funds are provided to or for the licensee under the Exelon Corporation Support Agreement.</p>	

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-69

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
	<p>3) Exelon Corporation shall, no later than the time the license transfers occur, provide a parent guarantee in the amount of \$165 million to ensure a source of funds for the Ginna, Calvert Cliffs 1 and 2, and/or Nine Mile Point 1 and 2 in the event that the existing cash pool between the Owner-Licensees and CENG is insufficient to cover operating costs. The existing CENG cash pool arrangement shall be consistent with the representations contained in the 2009 Transfer Application dated January 22, 2009 (ADAMS Accession No. ML090290101). Calvert Cliffs Nuclear Power Plant, LLC, CENG, or Exelon Generation shall not take any action to cause Exelon Corporation, or its successors and assigns, to void, cancel or materially modify the parent guarantee or cause it to fail to perform, or impair its performance under the parent guarantee without the prior written consent of the NRC.</p> <p>4) Within 14 days of the license transfers, Exelon Generation shall submit to the NRC the Nuclear Operating Services Agreement reflecting the terms set forth in the application dated August 6, 2013. Section 7.1 of the Nuclear Operating Services Agreement may not be modified in any material respect related to financial arrangements that would adversely impact the ability of the licensee to fund safety-related activities authorized by the license without the prior written consent of the Director of the Office of Nuclear Reactor Regulation.</p> <p>5) Within 10 days of the license transfers, Exelon Generation shall submit to the NRC the amended CENG Operating Agreement reflecting the terms set forth in the application dated August 6, 2013. The amended and restated Operating Agreement may not be modified in any material respect concerning decisionmaking authority over safety, security and reliability without the prior written consent of the Director of the Office of Nuclear Reactor Regulation.</p> <p>6) At least half the members of the CENG Board of Directors must be U.S. citizens.</p>	

Appendix C (Cont'd.)

Additional Conditions

Facility Operating License No. DPR-69

<u>Amendment No.</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
	<p>7) The CENG Chief Executive Officer, Chief Nuclear Officer, and Chairman of the CENG Board of Directors must be U.S. citizens. These individuals shall have the responsibility and exclusive authority to ensure and shall ensure that the business and activities of CENG with respect to the facility's license are at all times conducted in a manner consistent with the public health and safety and common defense and security of the United States.</p> <p>8) CENG will retain its Nuclear Advisory Committee (NAC) composed of U.S. citizens who are not officers, directors, or employees of CENG, EDF Inc., Constellation Nuclear, LLC, or CE Nuclear, LLC. The NAC will report to, and provide transparency to, the NRC and other U.S. governmental agencies regarding foreign ownership and control of nuclear operations.</p> <p>9) The NAC shall prepare an annual report regarding the status of foreign ownership, control, or domination of the licensed activities of power reactors under the control, in whole or part, of CENG. The NAC report shall be submitted to the NRC within 30 days of completion, or by January 31 of each year (whichever occurs first). No action shall be taken by CENG or any entity to cause Constellation Nuclear, LLC, Exelon Generation, or their parent companies, subsidiaries or successors to modify the NAC report before submission to the NRC. The NAC report shall be made available to the public, with the potential exception of information that meets the requirements for withholding such information from public disclosure under the regulations of 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."</p>	



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

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

DOCKET NO. 72-8

CALVERT CLIFFS INDEPENDENT SPENT FUEL STORAGE INSTALLATION

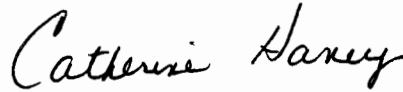
AMENDMENT TO MATERIALS LICENSE NO. SNM-2505

Amendment No. 10
License No. SNM-2505

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The amendment application dated August 6, 2013, as supplemented by letters and emails dated August 14, 2013, September 23 and 26, 2013, December 17, 2013, January 9, 2014, and February 5, 10, 14, and 21, 2014, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The Calvert Cliffs Independent Spent Fuel Storage Installation will continue to operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance that (i) the activities authorized by this amendment can be conducted without endangering public health and safety, and (ii) 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 public health and safety; 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 the enclosed changes to Materials License No. SNM-2505, indicated by margin notations.
3. This license amendment is effective as of the date of its issuance.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, reading "Catherine Haney". The signature is written in a cursive, flowing style.

Catherine Haney, Director
Office of Nuclear Material Safety and Safeguards

Enclosure: Amended License

Date of Issuance: April 1, 2014

ATTACHMENT TO LICENSE AMENDMENT NO.

MATERIALS LICENSE NO. SNM-2505

DOCKET NO. 72-8

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

REMOVE

1
2
3
4

INSERT

1
2
3
4

Replace the following page of the Technical Specification with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the areas of change.

REMOVE

ii
13

INSERT

ii
13

LICENSE FOR INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter 1, Part 72, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, and possess the power reactor spent fuel and other radioactive materials associated with spent fuel storage designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified herein.

<p style="text-align: center;">Licensee</p> <p>1. Calvert Cliffs Nuclear Power Plant, LLC (Owner) Exelon Generation Company, LLC (Operator)</p>	<p>3. License No. SNM-2505</p> <p>Amendment No. 10</p>
<p>2. 300 Exelon Way Kennett Square, PA 19348</p>	<p>4. Expiration Date November 30, 2012</p> <p>5. Docket or Reference No. 72-8</p>

<p>6. Byproduct, Source, and/or Special Nuclear Material</p>	<p>7. Chemical or Physical Form</p>	<p>8. Maximum Amount That Licensee May Possess at Any One Time Under This License</p>
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- | | | |
|--|--|--|
| <p>A. Spent fuel assemblies from Calvert Cliffs Nuclear Station Units 1 and 2 reactor using natural water for cooling and enriched not greater than 4.5 percent U-235 and associated radioactive materials related to receipt, storage, and transfer of fuel assemblies.</p> | <p>A. As UO₂ clad with zirconium or zirconium alloys.</p> | <p>A. 1,111.68 TeU of spent fuel assemblies.</p> |
|--|--|--|

9. Authorized Use: For use in accordance with the conditions in this license and the attached Technical Specifications. The basis for this license was submitted in the Safety Analysis Report (SAR) application dated December 21, 1989, and supplemented April 26, June 29, November 1, and December 20, 1990; February 1, February 12, September 30, October 18, December 19, and December 27, 1991; August 18 and September 4, 1992; July 29 and October 20, 1994; March 31, 1995; November 22, 1999; May 19, June 20, October 4, November 10 and 16, 2000; May 18, and July 26, 2001; December 12, 2003, May 12, 2004 and June 7, 2005; May 16, September 29, October 28, 2005, January 22, February 26, April 8, June 25, July 27, October 15, October 19, October 25 (2 letters), October 26, October 28, 2009; June 15, 2009, February 18, March 31, May 6, and September 1, 2010.

The material identified in 6.A and 7.A above is authorized for receipt, possession, storage, and transfer.

10. Authorized Place of Use: The licensed material is to be received, possessed, transferred, and stored at the Calvert Cliffs ISFSI located on the Calvert Cliffs Nuclear Power Plant site in Calvert County, Maryland. This site is described in Chapter 2 of the SAR for the Calvert Cliffs ISFSI.
11. The Technical Specifications contained in Appendix A attached hereto are incorporated into the license. Exelon Generation shall operate the installation in accordance with the Technical Specifications in Appendix A.

NRC FORM 588A (10-2000) 10 CFR 72	U. S. NUCLEAR REGULATORY COMMISSION	PAGE 2 OF 4 PAGES	
LICENSE FOR INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE SUPPLEMENTARY SHEET		License No. SNM-2505	Amendment No. 10
		Docket or Reference No. 72-8	

12. Exelon Generation shall fully implement and maintain in effect all provisions of the Independent Spent Fuel Storage Installation (ISFSI) physical security, guard training and qualification, and safeguards contingency plans previously approved by the Commission and all amendments made pursuant to the authority of 10 CFR 72.56, 10 CFR 72.44(e) and 72.186.
13. The Technical Specifications for Environmental Protection contained in Appendix A attached hereto are incorporated into the license.

Specifications required pursuant to 10 CFR 72.44(d), stating limits on the release of radioactive materials for compliance with limits of 10 CFR Part 20 and "as low as is reasonably achievable objective" for effluents are not applicable. Dry Shielded Canister (DSC) external surface contamination within the limits of Technical Specification 3.2.3.1 ensures that the offsite dose will be inconsequential. In addition, there are no normal or off-normal releases or effluents expected from the double-sealed storage canisters of the ISFSI.

Specifications required pursuant to 10 CFR 72.44(d)(1) for operating procedures, for control of effluents, and for the maintenance and use of equipment in radioactive waste treatment systems to meet the requirements of 10 CFR 72.104 are not applicable. There are, by the design of the sealed storage canisters at the ISFSI, no effluent releases. Also, all Calvert Cliffs site DSC and Transfer Cask (TC) loading and unloading operations and waste treatment there from will occur at the Calvert Cliffs Nuclear Power Plant under the specifications of its operating licenses.

14. No spent nuclear fuel shall be allowed to be loaded until such time as the following preoperational license conditions are satisfied:
 - A A training exercise (dry run) of all DSC, TC, and horizontal storage module (HSM) loading and handling activities shall be held and include but not be limited to, those listed below and need not be performed in the order listed:
 1. Loading DSC in cask.
 2. DSC (length may be truncated) drying, welding, and cover gas backfilling operations.
 3. Moving cask to and aligning and docking with HSM on the storage pad.
 4. Insertion of DSC in HSM
 5. Withdrawal of DSC from HSM
 6. Returning the cask to the decontamination pit
 7. Removing the cask lid and cutting open the DSC (length may be truncated) assuming fuel cladding failure.
 8. Removing the DSC from the cask.
 9. All dry run activities shall be done using written procedures.
 10. The activities listed above shall be performed to show that each activity can be successfully executed prior to actual fuel loading.

NRC FORM 588A (10-2000) 10 CFR 72	U. S. NUCLEAR REGULATORY COMMISSION	PAGE 3 OF 4 PAGES	
LICENSE FOR INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE SUPPLEMENTARY SHEET		License No. SNM-2505	Amendment No. 10
		Docket or Reference No. 72-8	

- B The Calvert Cliffs Nuclear Power Plant Emergency Plan shall be reviewed and modified as required to include the ISFSI.
- C A training module shall be developed for the Calvert Cliffs Nuclear Power Plant Training Program establishing an ISFSI Training and Certification Program which will include the following:
1. DSC, TC, and HSM Design (overview)
 2. ISFSI Facility Design (overview)
 3. ISFSI Safety Analysis (overview)
 4. Fuel loading and DSC and TC handling procedures and abnormal procedures
 5. ISFSI License (overview).
- D The Calvert Cliffs Nuclear Power Plant health physics procedures shall be reviewed and modified as required to include the ISFSI.
- E The Calvert Cliffs Nuclear Power Plant Administrative Procedures shall be reviewed and modified as required to include the ISFSI.
- F A procedure shall be developed and implemented for the documentation of the characterizations performed to select spent fuel to be stored in the canisters and modules. Such procedure shall include independent verification of fuel assembly selection by an individual other than the original individual making the selection.
- G A procedure shall be developed and implemented for two independent determinations (two samples analyzed by different individuals) of the boron concentration in the water used to fill the DSC cavity for fuel loading and unloading activities.
- H Written procedures shall be implemented to describe actions to be taken during operation and abnormal/emergency conditions.
15. The design, construction, and operation of the ISFSI shall be accomplished in accordance with the NRC regulations specified in Title 10 of the U.S. Code of Federal Regulations. All commitments to the applicable NRC Regulatory Guides and to engineering and construction codes shall be carried out.
16. The double closure seal welds at the bottom end of the DSC shall satisfy the Liquid Penetrant Acceptance Standards of ASME B&PV Code Section III, Division 1, Subsection NB-5350 (1983). Additionally, these seal welds at the bottom of the DSC shall be leak tested in accordance with ANSI N14.5 (1987).
17. Fuel and TC movement and handling activities which are to be performed in the Calvert Cliffs Nuclear Power Plant Auxiliary Building will be governed by the requirements of the Exelon Generation Facility Operating Licenses (DPR-53 and -69) and associated Technical Specifications.

NRC FORM 588A (10-2000) 10 CFR 72	U. S. NUCLEAR REGULATORY COMMISSION		PAGE 4 OF 4 PAGES			
LICENSE FOR INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE SUPPLEMENTARY SHEET		License No.	Amendment No.			
		SNM-2505	10			
		Docket or Reference No. 72-8				

18. Pursuant to 10 CFR 72.7, the licensee is hereby exempted from the provisions of 10 CFR 72.122(i) with respect to providing instrumentation and control systems for the DSC and HSM during storage operations.
19. This license is effective as of the date of issuance shown below.

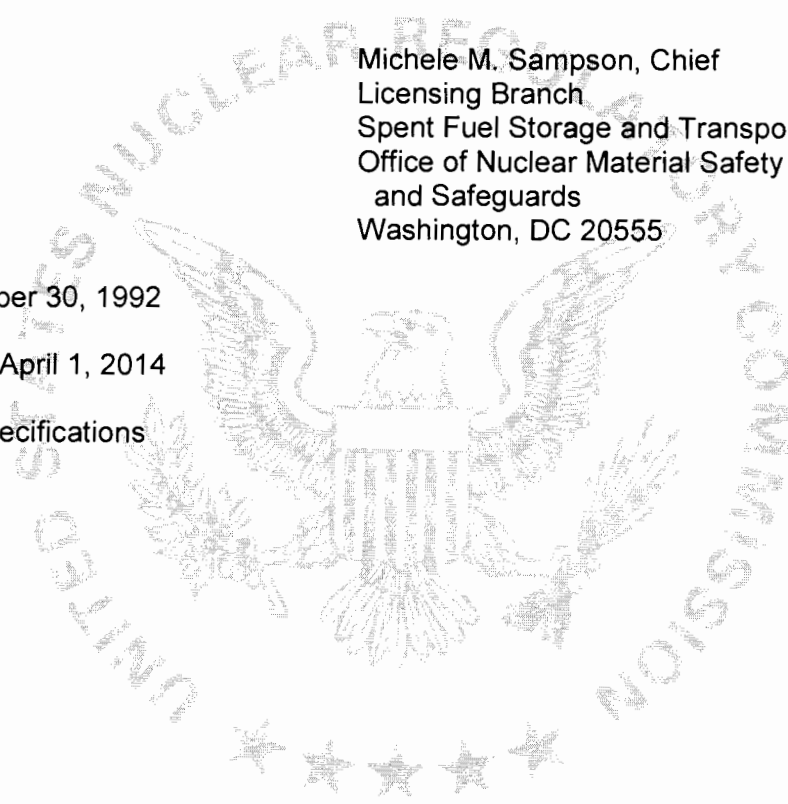
FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Michele M. Sampson, Chief
 Licensing Branch
 Spent Fuel Storage and Transportation Division
 Office of Nuclear Material Safety
 and Safeguards
 Washington, DC 20555

Date of Issuance: November 30, 1992

Amendment No. 10 dated April 1, 2014

Attachment: Technical Specifications



REVISION HISTORY

	Page: Section	Change Description
Amendment No. 10	Page 13	Added Exelon Generation Company, LLC to Section 6.1.
Amendment No. 9	<p>Pages 1 and 1A</p> <p>Page 2: 2.1</p> <p>Page 5: 3.1.1(3),(8),(9)</p> <p>Page 11: 3.4.1.1</p> <p>Page 13:5.3</p>	<p>Added definitions of INTACT FUEL and UNDAMAGED FUEL ASSEMBLIES</p> <p>Changed neutron source term for NUHOMS-32P canister. Added gamma source term for NUHOMS-32P canister.</p> <p>Increased allowable maximum burnup for a NUHOMS-32P canister. Revised conditions for clarification.</p> <p>Increased the allowable air temperature rise from the horizontal storage module (HSM) inlet to the HSM outlet.</p> <p>Added TS 5.3 – Combustible gas monitoring during top shield plug lid welding and cutting</p>
Amendment No. 8	Page 13: 6.1	Changed the name of the operator to Calvert Cliffs Nuclear Power Plant, LLC
Amendment No. 7	NA	Change in Final Safety Analysis Report design basis limit for the dry shielded canister, no changes to Technical Specifications
Amendment No. 6	<p>Table of contents</p> <p>Page 2: 2.1</p> <p>Page 5: 3.1.1(4), 3.1.1(5), 3.3.1(6), 3.3.1(7), and 3.3.1(9)</p> <p>Page 7: 3.2.1.1, 4.2.1.1, and 4.2.1.2</p> <p>Page 5: 5.1 and 5.2</p>	<p>Renumbered section 5.1, and added section 5.2</p> <p>Changed SAR table reference and added neutron source term for NUHOMS-32P canister</p> <p>Made changes to support use of either NUHOMS-24P or NUHOMS-32P canister</p> <p>increased the required spent fuel pool boron concentration, increased surveillance requirement action times.</p> <p>Renumbered section 5.1, and added section 5.2</p>
Amendment No. 5	<p>Page 4: Section 2.3</p> <p>Page 13: Section 6.3</p>	<p>Removed reference to Transfer Cask drop height limit.</p> <p>Changed semi-annual reporting period to annual reporting period and corrected typographical error.</p>

5.0 DESIGN FEATURES

5.1 GENERAL

The Calvert Cliffs ISFSI design approval was based upon review of specific design drawings, some of which have been deemed appropriate for inclusion in the Calvert Cliffs ISFSI Safety Evaluation Report (SER). Drawings listed in Section 1.5 of the Calvert Cliffs ISFSI SER have been reviewed and approved by the NRC. These drawings may be revised under the provisions of 10 CFR 72.48 as appropriate.

5.2 NUHOMS-32P DRY SHIELDED CANISTER (DSC)

The NUHOMS-32P DSC poison plates shall have a minimum B10 areal density of 0.0100g/cm².

5.3 COMBUSTIBLE GAS MONITORING DURING TOP SHIELD PLUG LID WELDING AND CUTTING

During top shield plug lid-to-shell welding and cutting operations, combustible gas monitoring of the space under the top shield plug lid is required, to ensure that there is no combustible mixture present.

6.0 ADMINISTRATIVE CONTROLS

6.1 GENERAL

The Calvert Cliffs ISFSI is located on the Calvert Cliffs Nuclear Power Plant site and will be managed and operated by the Exelon Generation Company, LLC staff. The administrative controls shall be in accordance with the requirements of the Calvert Cliffs Nuclear Power Plant Facility Operating Licenses (DPR-53 and -69) and associated Technical Specifications as appropriate.

6.2 ENVIRONMENTAL MONITORING PROGRAM

The licensee shall include the Calvert Cliffs ISFSI in the environmental monitoring for Calvert Cliffs Nuclear Power Plant. An environmental monitoring program is required pursuant to 10 CFR 72.44(d)(2).

6.3 ANNUAL ENVIRONMENTAL REPORT

The annual radioactive effluent release reports under 10 CFR 50.36(a)(2) license requirements for the Calvert Cliffs Nuclear Power Plant shall also specify the quantity, if any, of each of the principal radionuclides released to the environment in liquid and gaseous effluents during the ISFSI operation and such other information as may be required by the Commission to estimate maximum potential radiation dose commitment to the public resulting from effluent releases. Copies of these reports shall be submitted to the NRC Region I office and to the Director, Office of Nuclear Material Safety and Safeguards. The report under this specification is required pursuant to 10 CFR 72.44(d)(3).

M. Korsnick and B. Wright

- 2 -

The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/ra/

Nadiyah S. Morgan, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-317, 50-318, and 72-8

Enclosures:

1. Amendment No. 305 to DPR-53
2. Amendment No. 283 to DPR-69
3. Amendment No. 10 to SNM-2505

cc w/encs:

Mr. George H. Gellrich, Vice President
Calvert Cliffs Nuclear Power Plant, Inc.
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

Additional Distribution via ListServ

ADAMS Accession Nos.:

Package: ML14063A101

Letter: ML14091A297

OFFICE	NRR/DORL/LPLI-1/PM	NRR/DORL/LPLI-1/LA	NRR/DIRS/IFIB*	NRR/DRA/APHB/BC*	NMSS/SFST/LB/BC*
NAME	NMorgan	KGoldstein	AKock	SWeerakkody	MSampson
DATE	4/1/2014	4/1/2014 (via email)	2/28/2014	3/5/2014	3/6/2014
OFFICE	QTE*	OGC*	NRR/DORL/LPLI-1/BC	NRR/DORL/D*	NMSS/D*
NAME		SUttal	BBeasley	MEvans	CHaney
DATE	3/6/2014	3/21/2014	4/1/2014	3/20/2014	3/21/2014
OFFICE	NRR/D*				
NAME	ELeeds				
DATE	3/24/2014				

*Concurred on the Order package dated March 24, 2014, which included the draft conforming amendments. No changes were made.

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