



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

October 7, 2016

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 -  
ISSUANCE OF AMENDMENT RE: CHANGE TO SURVEILLANCE  
REQUIREMENT 3.5.3.1 (CAC NOS. MF7349 and MF7350)

Dear Mr. Hanson:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 319 to Renewed Facility Operating License No. DPR-53, and Amendment No. 297 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, respectively. These amendments consist of changes to the technical specifications (TSs) in response to your application dated February 4, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16035A227).

These amendments revise surveillance requirement (SR) 3.5.3.1. The proposed change is to include SR 3.5.2.10 in the list of applicable surveillances in SR 3.5.3.1 as part of the implementation of TS Task Force (TSTF) Standard TS Change Traveler TSTF-523, Revision 2, "Generic Letter 2008-01, Managing Gas Accumulation."

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Guzman", with a long horizontal line extending to the right.

Richard V. Guzman, Sr. Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures:

1. Amendment No. 319 to DPR-53
2. Amendment No. 297 to DPR-69
3. Safety Evaluation

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

AMENDMENT TO 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

Amendment No. 319  
Renewed License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon, the licensee), dated February 4, 2016, 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-53 is hereby amended to read as follows:

Enclosure 1

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 319, are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Travis Tate, Chief  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the License and Technical  
Specifications

Date of Issuance: October 7, 2016



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

AMENDMENT TO 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

Amendment No. 297  
Renewed License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon, the licensee), dated February 4, 2016, 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-69 is hereby amended to read as follows:

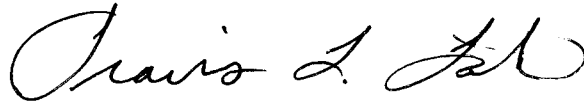
Enclosure 2

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 297, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Travis L. Tate". The signature is fluid and cursive, with a large initial 'T'.

Travis Tate, Chief  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the License and  
Technical Specifications

Date of Issuance: October 7, 2016

ATTACHMENT TO LICENSE AMENDMENTS

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT NO. 319 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

AMENDMENT NO. 297 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Replace the following page of the Renewed Facility Operating Licenses with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Pages

3

Insert Pages

3

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

Remove Pages

3.5.3-2

Insert Pages

3.5.3-2

- (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. 319, 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. 318 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:

- (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. 297 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



SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.3.1	The HPSI train related portions of the train following Surveillance Requirements are applicable:  SR 3.5.2.1      SR 3.5.2.5      SR 3.5.2.10 SR 3.5.2.2      SR 3.5.2.6 SR 3.5.2.3      SR 3.5.2.8	In accordance with applicable Surveillance Requirements



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO CHANGE TO SURVEILLANCE REQUIREMENT 3.5.3.1

AMENDMENT NO. 319 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 297 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2

EXELON GENERATION COMPANY, LLC

DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By application dated February 4, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16035A227), Exelon Generation Company, LLC (the licensee) requested an amendment to the licenses for Calvert Cliffs Nuclear Power Plant (CCNPP), Unit Nos. 1 and 2, DPR-53 and DPR-69, to revise the technical specifications (TSs) to change surveillance requirement (SR) 3.5.3.1.

The proposed change would include SR 3.5.2.10 in the list of applicable SRs shown in SR 3.5.3.1. This SR is applicable to the U.S. Nuclear Regulatory Commission (NRC)-approved Technical Specifications Task Force (TSTF) Standard Technical Specifications (STS) Change Traveler TSTF-523, Revision 2, "Generic Letter [GL] 2008-01, Managing Gas Accumulation," (ADAMS Accession No. ML13053A075) dated February 21, 2013. The NRC issued Amendment Nos. 313 and 291 dated July 30, 2015 (ADAMS Accession No. ML15161A380) which approved the implementation of TSTF-523 for CCNPP, Unit Nos. 1 and 2, respectively. Subsequent to the issuance of these amendments, the licensee identified that inclusion of SR 3.5.2.10 should have also resulted in a change to SR 3.5.3.1.

2.0 REGULATORY EVALUATION

2.1 Regulatory Requirements

The regulatory requirements and guidance documents which the NRC staff used in the review of the application are listed below:

- In Section 50.36 of Title 10 of the *Code of Federal Regulations* (10 CFR), the NRC established its regulatory requirements related to the content of TSs. Pursuant to 10

CFR 50.36, TSs are required to include items in the following five specific categories related to station operation: (1) Safety limits, limiting safety system settings, and limiting control settings; (2) Limiting conditions for operation (LCO); (3) Surveillance requirements; (4) Design features; and (5) Administrative controls.

## 2.2 Regulatory Guidance

- The NRC's guidance for the format and content of licensee TSs can be found in NUREG-1432, "Standard Technical Specifications, Combustion Engineering Plants," Revision 4.0, April 2012 (ADAMS Accession Nos. ML12102A165 and ML12102A169).
- The model SE for plant-specific adoption of TSTF STS Change Traveler TSTF-523, Revision 2 "Generic Letter 2008-01, Managing Gas Accumulation," dated December 23, 2013, can be found in ADAMS Accession No. ML13255A169. The availability of this TS improvement was announced in the *Federal Register* on January 15, 2014 (79 FR 2700).

## 3.0 TECHNICAL EVALUATION

### 3.1 Background

By letter dated July 30, 2015, the NRC issued license amendments that revised the CCNPP TSs by implementing TSTF-523. These amendments added new SRs related to gas accumulation for the shutdown cooling system, the emergency core cooling system (ECCS), and the containment spray system to the CCNPP TSs. Specifically, SR 3.5.2.10 was added to the CCNPP TSs because there was not an existing SR related to gas accumulation. The licensee did not identify, and subsequently did not request a change to the TSs, that adding the new SR 3.5.2.10 should have resulted in a change to SR 3.5.3.1 as well.

The licensee has implemented administrative controls as per Administrative Letter 98-10 "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," dated December 29, 1998, to include SR 3.5.2.10 into the list of applicable SRs shown in SR 3.5.3.1 while the NRC evaluates this LAR.

### 3.2 Licensee's Proposed Changes

In its LAR dated February 4, 2016, the licensee proposed to add SR 3.5.2.10 to the list of applicable SRs shown in SR 3.5.3.1.

### 3.3 NRC Staff Evaluation

As noted in the discussion above, the licensee previously received license amendments that incorporated the SRs listed in TSTF-523 into the CCNPP TSs. The staff's review of the amendments established that addition of the SRs in TSTF-523 met the regulatory requirements of 10 CFR 50.36 because the changes provided assurance that the necessary quality of

systems and components will be maintained and that the LCO will be met, and therefore, were acceptable to the staff.

Specifically, TSTF-523 modified CCNPP LCO 3.5.2, "ECCS – Operating," by adding an SR. The new SR requires that ECCS locations susceptible to gas accumulations be verified [to be] sufficiently filled with water.

Prior to receiving approval of the TSTF-523 amendment, the CCNPP TSs did not contain a SR requiring the licensee's verification that ECCS locations susceptible to gas accumulation be sufficiently filled with water. The Combustion Engineering (CE) STS contains an existing SR (SR 3.5.2.3) to verify that the ECCS piping is full of water. In the CE STS, this SR is included in the list of applicable SRs in SR 3.5.3.1. When the model SE for TSTF-523 was developed it was based, in part, on the CE STS. Therefore, TSTF-523 didn't explicitly require the modification of the list of applicable SRs in SR 3.5.3.1 to add the SR to verify ECCS piping is full of water. As stated in its application, the licensee failed to identify that the addition of a new SR should result in a change to SR 3.5.3.1 to capture the new SR.

The NRC staff has reviewed the proposed change and determined that the existing SR 3.5.2.10 in the CCNPP TSs should have been included as one of the applicable SRs listed in SR 3.5.3.1. The staff has determined that this change is acceptable as it had previously approved the implementation of TSTF-523 into the CCNPP TSs which covers the licensee's proposed change.

#### 3.4 Technical Evaluation Conclusions

The NRC staff has found that the change described above is consistent with TSTF-523 and satisfies the requirements for TSs in 10 CFR 50.36. Therefore, the NRC staff has concluded that the change to SR 3.5.3.1 as described above is acceptable.

#### 4.0 STATE CONSULTATION

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

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes SRs. 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 published in the FR on May 24, 2016 (81 FR 32806). 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) there is reasonable assurance that 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 Contributors: Alexander N. Chereskin  
Richard V. Guzman

Date: October 7, 2016

October 7, 2016

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 -  
ISSUANCE OF AMENDMENT RE: CHANGE TO SURVEILLANCE  
REQUIREMENT 3.5.3.1 (CAC NOS. MF7349 and MF7350)

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These amendments revise surveillance requirement (SR) 3.5.3.1. The proposed change is to include SR 3.5.2.10 in the list of applicable surveillances in SR 3.5.3.1 as part of the implementation of TS Task Force (TSTF) Standard TS Change Traveler TSTF-523, Revision 2, "Generic Letter 2008-01, Managing Gas Accumulation."

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

*/RA/*

Richard V. Guzman, Sr. Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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**ADAMS Accession No. ML16263A001**

OFFICE	LPLI-1/PM	LPLI-1/LA	DSS/STSB/BC	OGC	LPLI-1/BC	LPLI-1/PM
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