



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

August 8, 2023

Mr. David P. Rhoades  
Senior Vice President  
Constellation Energy Generation, LLC  
President and Chief Nuclear Officer  
Constellation Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 346 AND 324 RE: ADOPTION OF TSTF-577, “REVISED FREQUENCIES FOR STEAM GENERATOR TUBE INSPECTIONS,” REVISION 1 (EPID L-2022-LLA-0115)

Dear Mr. Rhoades:

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment No. 346 to Renewed Facility Operating License No. DPR-53 and Amendment No. 324 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Units 1 and 2. These amendments consist of changes to the technical specifications in response to your application transmitted by letter dated August 10, 2022, as supplemented by letters dated December 7, 2022, and May 22, 2023. The amendments for other plants included in your letter dated August 10, 2022, will be issued under separate cover.

These amendments revise the “Steam Generator (SG) Program” and the “Steam Generator (SG) Tube Inspection Report” technical specifications based on Technical Specifications Task Force (TSTF) Traveler TSTF 577, Revision 1, “Revised Frequencies for Steam Generator Tube Inspections” (TSTF 577), and the associated NRC staff safety evaluation of TSTF 577.

A copy of our related safety evaluation is enclosed. A Notice of Issuance will be included in the Commission's monthly *Federal Register* notice.

Sincerely,

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Joel S. Wiebe, Senior Project Manager  
Plant Licensing Branch III  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures:

1. Amendment No. 346 to DPR-53
2. Amendment No. 324 to DPR-69
3. Safety Evaluation
4. Notices and Environmental Findings

cc: Listserv



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

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 346  
Renewed License No. DPR-53

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Constellation Energy Generation, LLC (CEG, the licensee) dated August 10, 2022, as supplemented by letters dated December 7, 2022, and May 22, 2023, 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:

- (2) Technical Specifications

- The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 346, are hereby incorporated into this license. Constellation Energy Generation, LLC 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 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Jeffrey A. Whited, Chief  
Plant Licensing Branch III  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License and Technical  
Specifications

Date of Issuance: August 8, 2023



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

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 324  
Renewed License No. DPR-69

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Constellation Energy Generation, LLC (CEG, the licensee) dated August 10, 2022, as supplemented by letters dated December 7, 2022, and May 22, 2023, 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 324, 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 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Jeffrey A. Whited, Chief  
Plant Licensing Branch III  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License and Technical  
Specifications

Date of Issuance: August 8, 2023

ATTACHMENT TO LICENSE AMENDMENT NOS. 346 AND 324

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2

RENEWED FACILITY OPERATING LICENSE NOS. DPR-53 AND DPR-69

DOCKET NOS. 50-317 AND 50-318

Replace the following pages of the Renewed Facility Operating Licenses and Appendix A, Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

Remove

License DPR-53

Page 3

License DPR-69

Page 3

TSs

Page 5.5-6

Page 5.5-7

Page 5.5-8

Page 5.5-9

Page 5.5-10

Page 5.6-6

Page 5.6-7

Insert

License DPR-53

Page 3

License DPR-69

Page 3

TSs

Page 5.5-6

Page 5.5-7

Page 5.5-8

Page 5.5-9

Page 5.5-10

Page 5.6-6

Page 5.6-7

- (4) Constellation Energy Generation, LLC, 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) Constellation Energy Generation, LLC, 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

Constellation Energy Generation, LLC 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. 346, are hereby incorporated into this license. Constellation Energy Generation, LLC 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. 345 are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Additional Conditions.



- (4) Constellation Energy Generation, LLC, 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) Constellation Energy Generation, LLC, 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

Constellation Energy Generation, LLC 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. 324, 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.

## 5.5 Programs and Manuals

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### 5.5.6 Concrete Containment Tendon Surveillance Program

This program provides controls for monitoring any tendon degradation in pre-stressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measurements prior to initial operation. The Tendon Surveillance Program, inspection frequencies, and acceptance criteria shall be in accordance with Section XI, Subsection IWL of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a, as amended by relief granted in accordance with 10 CFR 50.55a(a)(3).

The provisions of SR 3.0.3 are applicable to the Tendon Surveillance Program inspection frequencies.

### 5.5.7 Reactor Coolant Pump Flywheel Inspection Program

This program shall provide for the inspection of each reactor coolant pump flywheel per the recommendations of regulatory position C.4.b of Regulatory Guide 1.14, Revision 1, August 1975.

In lieu of Regulatory Position C.4.b(1) and C.4.b(2), a qualified in-place UT examination over the volume from the inner bore of the flywheel to the circle one-half of the outer radius or a surface examination (MT and/or PT) of exposed surfaces of the removed flywheels may be conducted at an interval not to exceed 20 years.

### 5.5.8 DELETED

### 5.5.9 Steam Generator (SG) Program

An SG Program shall be established and implemented to ensure that SG tube integrity is maintained. In addition, the SG Program shall include the following:

- a. Provisions for condition monitoring assessments. Condition monitoring assessment means an evaluation of the "as found" condition of the tubing with respect to the performance

## 5.5 Programs and Manuals

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criteria for structural integrity and accident induced leakage. The "as found" condition refers to the condition of the tubing during an SG inspection outage, as determined from the inservice inspection results or by other means, prior to the plugging of tubes. Condition monitoring assessments shall be conducted during each outage during which the SG tubes are inspected or plugged to confirm that the performance criteria are being met.

- b. Performance criteria for SG tube integrity. SG tube integrity shall be maintained by meeting the performance criteria for tube structural integrity, accident induced leakage, and operational LEAKAGE.

1. Structural integrity performance criterion: All in-service SG tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cool down), all anticipated transients included in the design specification, and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady-state full power operation primary to secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.

## 5.5 Programs and Manuals

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2. Accident induced leakage performance criterion: The primary to secondary accident induced leakage rate for any design basis accident, other than a SG tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all SGs and leakage rate for an individual SG. Leakage is not to exceed 100 gpd per SG.
  3. The operational LEAKAGE performance criterion is specified in LCO 3.4.13, "RCS Operational LEAKAGE."
- c. Provisions for SG tube plugging criteria. Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged.
  - d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial, and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube plugging criteria. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, and d.3 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. A degradation assessment shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.
1. Inspect 100% of the tubes in each SG during the first refueling outage following SG installation.

## 5.5 Programs and Manuals

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2. After the first refueling outage following SG installation, inspect 100% of the tubes in each SG at least every 96 effective full power months, which defines the inspection period.
  3. If crack indications are found in any SG tube, then the next inspection for each affected and potentially affected SG for the degradation mechanism that caused the crack indication shall be at the next refueling outage. If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.
- e. Provisions for monitoring operational primary to secondary LEAKAGE.

## 5.5 Programs and Manuals

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### 5.5.10 Secondary Water Chemistry Program

This program provides controls for monitoring secondary water chemistry to inhibit steam generator tube degradation and low pressure turbine disc stress corrosion cracking. The program shall include:

- a. Identification of a sampling schedule for the critical variables and control points for these variables;
- b. Identification of the procedures used to measure the values of the critical variables;
- c. Identification of process sampling points which shall include monitoring the discharge of the condensate pumps for evidence of condenser in leakage;
- d. Procedures for the recording and management of data;
- e. Procedures defining corrective actions for all off control point chemistry conditions; and

## 5.6 Reporting Requirements

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thermal mechanical limits, core thermal hydraulic limits, ECCS limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

- d. The COLR, including any mid cycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.6 Not Used

### 5.6.7 Post-Accident Monitoring Report

When a report is required by Condition B or F of LCO 3.3.10, "Post Accident Monitoring Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

### 5.6.8 Tendon Surveillance Report

Any abnormal degradation of the containment structure detected during the tests required by the Pre-Stressed Concrete Containment Tendon Surveillance Program shall be reported to the NRC within 30 days. The report shall include a description of the tendon condition, the condition of the concrete (especially at tendon anchorages), the inspection procedures, the tolerances on cracking, and the corrective action taken.

### 5.6.9 Steam Generator Tube Inspection Report

A report shall be submitted within 180 days after the initial entry into MODE 4 following completion of an inspection performed in accordance with the Specification 5.5.9, "Steam Generator (SG) Program." The report shall include:

## 5.6 Reporting Requirements

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- a. The scope of inspections performed on each SG;
  - b. The nondestructive examination techniques utilized for tubes with increased degradation susceptibility;
  - c. For each degradation mechanism found:
    1. The nondestructive examination techniques utilized;
    2. The location, orientation (if linear), measured size (if available), and voltage response for each indication. For tube wear at support structures less than 20 percent through-wall, only the total number of indications needs to be reported;
    3. A description of the condition monitoring assessment and results, including the margin to the tube integrity performance criteria and comparison with the margin predicted to exist at the inspection by the previous forward-looking tube integrity assessment; and
    4. The number of tubes plugged during the inspection outage.
  - d. An analysis summary of the tube integrity conditions predicted to exist at the next scheduled inspection (the forward-looking tube integrity assessment) relative to the applicable performance criteria, including the analysis methodology, inputs, and results;
  - e. The number and percentage of tubes plugged to date, and the effective plugging percentage in each SG; and
  - f. The results of any SG secondary side inspections.
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO  
AMENDMENT NO. 346 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53 AND  
AMENDMENT NO. 324 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69  
CONSTELLATION ENERGY GENERATION, LLC  
CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-317 AND 50-318

<u>Application</u> <ul style="list-style-type: none"><li>• August 10, 2022, (ML22222A068)</li><li>• December 7, 2022, (ML22342B230)</li><li>• May 22, 2023, (ML23143A136)</li></ul>	<u>Safety Evaluation Date</u> <ul style="list-style-type: none"><li>• August 8, 2023</li></ul> <u>Principal Contributors to Safety Evaluation</u> <ul style="list-style-type: none"><li>• Clinton Ashley</li></ul>
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## 1.0 PROPOSED CHANGES

By letter dated August 10, 2022, as supplemented by letters dated December 7, 2022, and May 22, 2023, Constellation Energy Generation, LLC (the licensee) requested changes to the technical specifications (TSs) for Calvert Cliffs Nuclear Power Plant (Calvert Cliffs), Unit Nos. 1 and 2. In its August 10, 2022, letter, the licensee requested that the U.S. Nuclear Regulatory Commission (NRC, the Commission) process the proposed amendment under the Consolidated Line-Item Improvement Process (CLIIP). The proposed changes would revise the “Steam Generator (SG) Program” and the “Steam Generator Tube Inspection Report” TSs based on Technical Specifications Task Force (TSTF) Traveler TSTF-577, Revision 1, “Revised Frequencies for Steam Generator Tube Inspections” (TSTF-577) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21060B434), and the associated NRC staff safety evaluation (SE) of TSTF-577 (ML21098A188). This request was removed from the CLIIP process because of the complexity caused by not completing the required 100 percent SG tube inspections before the date of the request.

The tubes within an SG function as an integral part of the reactor coolant pressure boundary and, in addition, isolate fission products in the primary coolant from the secondary coolant and the environment. SG tube integrity means that the tubes are capable of performing this safety function in accordance with the plant design and licensing basis.

Calvert Cliffs, Unit Nos. 1 and 2, SGs have Alloy 690 thermally treated (Alloy 690TT) tubes.

## 1.1 Proposed TS Changes to Adopt TSTF-577

In accordance with NRC staff-approved TSTF-577, the licensee proposed changes that would revise Calvert Cliffs TS 5.5.9, "Steam Generator (SG) Program," and TS 5.6.9, "Steam Generator Tube Inspection Report." Specifically, the licensee proposed the following changes to adopt TSTF-577:

### TS 5.5.9, "Steam Generator (SG) Program":

- TS 5.5.9 introductory paragraph and paragraph b.1 would be revised by replacing "steam generator" with "SG" in a few instances.
- TS 5.5.9.d.2 would be revised by deleting the requirement to base inspection frequency on the more restrictive metric between either the effective full power months (EFPM) or refueling outage and to use just the EFPM metric.
- TS 5.5.9.d.2 would be revised by deleting the requirement to inspect 100 percent of the tubes during each period in paragraphs d.2.a, d.2.b, d.2.c, and d.2.d (144, 120, 96, and 72 EFPM, respectively) and by adding the requirement to inspect 100 percent of the tubes every 96 EFPM.
- TS 5.5.9.d.2 would be revised by deleting the allowance to extend the inspection period by 3 EFPM and by deleting the discussion of prorating inspections.
- TS 5.5.9.d.3 would be revised by replacing "shall not exceed 24 effective full power months or one refueling outage (whichever results in more frequent inspections)" with "shall be at the next refueling outage."

### TS 5.6.9, "Steam Generator Tube Inspection Report":

- Existing reporting requirement b. would be renumbered as c. and be revised by editorial and punctuation changes.
- New reporting requirement b. would be added to require the nondestructive examination (NDE) techniques utilized for tubes with increased degradation susceptibility be reported.
- Existing reporting requirement c. would be renumbered as c.1. and be revised by editorial and punctuation changes.
- Existing reporting requirement d. would be renumbered as c.2. and be revised to note that the location, orientation (if linear), measured size (if available), and voltage response do not need to be reported for tube wear indications at support structures that are less than 20 percent through-wall. However, the total number of tube wear indications at support structures that are less than 20 percent through-wall would be reported.
- New reporting requirement d. would be added to require an analysis summary of the tube integrity conditions predicted to exist at the next scheduled inspection relative to the applicable performance criteria, including the analysis methodology, inputs, and results.

- Existing reporting requirement e. would be renumbered as c.4 and be revised by editorial and punctuation changes.
- Existing reporting requirement f. would be renumbered as e. and be revised by editorial and punctuation changes.
- New reporting requirement f. would be added to require the results of any SG secondary side inspections be reported.
- Existing reporting requirement g. would be renumbered as c.3. and be revised to add the requirements to report a description of the condition monitoring assessment, the margin to the tube integrity performance criteria, and a comparison with the margin predicted to exist at the inspection by the previous forward-looking tube integrity assessment. In addition, the requirement to report the results of tube pulls and in-situ testing would be deleted.

## 1.2 Additional Proposed TS Changes

In addition to the changes proposed consistent with the traveler discussed in Section 1.1, the licensee identified the following variations.

### 1.2.1 Variations

The licensee identified three variations for Calvert Cliffs. First, the Calvert Cliffs TSs use different numbering than Standard Technical Specifications (STSs) on which TSTF-577 was based. Specifically, the “Steam Generator Tube Inspection Report” is numbered 5.6.9 in Calvert Cliffs TSs rather than TS 5.6.7 as stated in the TSTF. Second, the Calvert Cliffs TS 5.5.9.b currently references “Steam generator” instead of “SG.” The licensee proposed to use SG, in order to be consistent with the STS on which TSTF-577 is based. Finally, Calvert Cliffs TS 5.6.9 currently does not include quotation marks around the program title, “Steam Generator (SG) Program.” The licensee proposed to include quotation marks in order to be consistent with the STS on which TSTF-577 is based.

## 2.0 REGULATORY EVALUATION

The regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) paragraph 50.36(c)(5), “Administrative controls,” state that “[a]dministrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner. Each licensee shall submit any reports to the Commission pursuant to approved technical specifications as specified in [10 CFR] 50.4.” Technical Specification, Section 5.0, “Administrative Controls,” requires that an SG program be established and implemented to ensure that SG tube integrity is maintained. Programs established by the licensee, including the SG program, are listed in the administrative controls section of the TS to operate the facility in a safe manner.

The NRC staff’s guidance for the review of TSs is in NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [Light-Water Reactor] Edition” (SRP), Chapter 16.0, “Technical Specifications,” Revision 3, dated March 2010 (ML100351425). As described therein, as part of the regulatory standardization effort, the NRC staff has prepared STSs for each of the LWR nuclear designs. Accordingly, the NRC staff’s

review includes consideration of whether the proposed changes are consistent with NUREG-1432<sup>1</sup>, as modified by NRC-approved travelers.

TSTF-577 revised the STSs related to SG tube inspections and SG tube inspection reporting requirements. The NRC approved traveler TSTF-577 under the CLIP on April 14, 2021 (ML21099A086).

### 3.0 TECHNICAL EVALUATION

#### 3.1 Proposed TS Changes to Adopt TSTF-577

The NRC staff compared the licensee's proposed TS changes in Section 1.1 of this SE against the changes approved in TSTF-577. In accordance with SRP Chapter 16.0, the NRC staff determined that the STS changes approved in TSTF-577 are applicable because Calvert Cliffs, Unit Nos. 1 and 2, are pressurized-water reactors (PWRs) and the NRC staff approved the TSTF-577 changes for PWRs. The NRC staff finds that the licensee's proposed changes to the Calvert Cliffs, Unit Nos. 1 and 2, TSs in Section 1.1 of this SE are consistent with those found acceptable in TSTF-577.

In the SE of TSTF-577, the NRC staff concluded that the TSTF-577 changes to STS 5.5.9, "Steam Generator (SG) Program," and STS 5.6.7, "Steam Generator Tube Inspection Report," were acceptable because, as discussed in Section 3.0 of that SE, they continued to ensure SG tube integrity and, therefore, protected the public health and safety. In particular, the structural integrity performance criterion and accident-induced leakage performance criterion (explained in STS 5.5.9.b, items 1 and 2, respectively) will continue to be met with the proposed revised SG inspection intervals (maximum allowable time between SG inspections) and inspection periods (maximum allowable time between 100 percent of SG tubes inspections). Additionally, the proposed changes to the reporting requirements will provide more detailed and consistent information to the NRC. Therefore, the NRC staff found that the proposed changes to the SG program and inspection reporting requirements were acceptable because they continued to meet the requirements of 10 CFR 50.36(c)(5) by providing administrative controls necessary to assure operation of the facility in a safe manner. For these same reasons, the NRC staff concludes that the corresponding proposed changes to the Calvert Cliffs, Unit Nos. 1 and 2, TSs in Section 1.1 of this SE continue to meet the requirements of 10 CFR 50.36(c)(5).

#### 3.2 Additional Proposed TS Changes

##### 3.2.1 Variations

The variations are described in Section 1.2.1 of this SE. The NRC staff finds the variations acceptable because the variations do not substantively alter TS requirements.

#### 3.3 TS Change Consistency

The NRC staff reviewed the proposed TS changes for technical clarity and consistency with the existing requirements for customary terminology and formatting. The NRC staff finds that the proposed changes are consistent with Chapter 16.0 of the SRP and are therefore acceptable.

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<sup>1</sup> U.S. Nuclear Regulatory Commission, "Standard Technical Specifications, Combustion Engineering Plants," NUREG-1432, Volume 1, "Specifications," and Volume 2, "Bases," Revision 5, September 2021 (ML21258A421 and ML21258A424, respectively).

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

NOTICES AND ENVIRONMENTAL FINDINGS  
 RELATED TO  
 AMENDMENT NO. 346 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53 AND  
 AMENDMENT NO. 324 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69  
 CONSTELLATION ENERGY GENERATION, LLC  
 CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2  
 DOCKET NOS. 50-317 AND 50-318

<u>Application</u> <ul style="list-style-type: none"> <li>• August 10, 2022, (ML22222A068)</li> <li>• December 7, 2022, (ML22342B230)</li> <li>• May 22, 2023, (ML23143A136)</li> </ul>	<u>Safety Evaluation Date</u> August 8, 2023
	<u>Principal Contributors to Safety Evaluation</u> Clinton Ashley

1.0 INTRODUCTION

By letter dated August 10, 2022, as supplemented by letters dated December 7, 2022, and May 22, 2023, Constellation Energy Generation, LLC (the licensee) requested changes to the technical specifications (TSs) for Calvert Cliffs Nuclear Power Plant (Calvert Cliffs), Unit Nos. 1 and 2. In its August 10, 2022, letter, the licensee requested that the U.S. Nuclear Regulatory Commission (NRC, the Commission) process the proposed amendment under the Consolidated Line-Item Improvement Process (CLIIP). The proposed changes would revise the “Steam Generator (SG) Program” and the “Steam Generator Tube Inspection Report” TSs based on Technical Specifications Task Force (TSTF) Traveler TSTF-577, Revision 1, “Revised Frequencies for Steam Generator Tube Inspections” (TSTF-577) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21060B434), and the associated NRC staff safety evaluation (SE) of TSTF-577 (ML21098A188). This request was removed from the CLIIP process because of the complexity caused by not completing the required 100 percent SG tube inspections before the date of the request.

The supplements dated December 7, 2022, and May 22, 2023, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff’s original proposed no significant hazards consideration determination as published in the *Federal Register* on October 4, 2022 (87 FR 60216).

2.0 STATE CONSULTATION

In accordance with the Commission’s regulations, the Maryland State official was notified of the proposed issuance of the amendment on June 6, 2023. The State official had no comments.

3.0 ENVIRONMENTAL CONSIDERATION

The amendment relates, in part, to changes in recordkeeping, reporting, or administrative procedures or requirements. The amendment also relates, in part, to changing requirements with respect to the installation or use of facility components located within the restricted area as

defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on October 4, 2022 (87 FR 60216). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

Date of issuance: August 8, 2023

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 346 AND 324 RE: ADOPTION OF TSTF-577, “REVISED FREQUENCIES FOR STEAM GENERATOR TUBE INSPECTIONS,” REVISION 1 (EPID L-2022-LLA-0115) DATED AUGUST 8, 2023

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**ADAMS Accession No.: ML23188A040**

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LPL3/LA	NRR/DSS/STSB/BC
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DATE	7/6/2023	7/11/2023	6/6/2023
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NAME	JWhited	JWiebe	
DATE	8/8/2023	8/8/2023	

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