



NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-352 and 50-353; NRC-2023-0182]

Constellation Energy Generation, LLC; Limerick Generating Station, Units 1 and 2

AGENCY: Nuclear Regulatory Commission.

ACTION: License amendment application; opportunity to comment, request a hearing, and petition for leave to intervene.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC, the Commission) is considering issuance of an amendment to Renewed Facility Operating License Nos. NPF-39 and NPF-85, issued to Constellation Energy Generation, LLC, for operation of the Limerick Generating Station, Units 1 and 2 (Limerick). The amendment would make changes to technical specifications (TS) affecting postulated accidents during cold shutdown and refueling operations and make temporary changes to the Limerick TS related to anticipated transients without scram (ATWS) mitigation systems during power production operation.

DATES: Submit comments by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Request for a hearing or petitions for leave to intervene must be filed by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: You may submit comments by any of the following methods however, the NRC encourages electronic comment submission through the **Federal rulemaking website**:

- **Federal rulemaking website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2023-0182**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@nrc.gov. For technical questions, contact the individual listed in the “For Further Information Contact” section of this document.

- **Mail comments to:** Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Nicholas Smith, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-2509; email: Nicholas.Smith@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID **NRC-2023-0182** when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2023-0182**.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **NRC’s PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-

4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

B. Submitting Comments

The NRC encourages electronic comment submission through the **Federal rulemaking website** (<https://www.regulations.gov>). Please include Docket ID **NRC-2023-0182** in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Introduction

The NRC is considering issuance of an amendment to Renewed Facility Operating License Nos. NPF-39 and NPF-85, issued to Constellation Energy Generation, LLC, for operation of the Limerick Generating Station, Units 1 and 2, located in Montgomery County, Pennsylvania.

In accordance with section 50.90 of title 10 of the *Code of Federal Regulations* (10 CFR) "Application for amendment of license, construction permit, or early site permit," Constellation Energy Generation, LLC (Constellation) requests an amendment to Appendix A, "Technical Specifications" of Renewed Facility Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station, Units 1 and 2, (Limerick) respectively. The proposed TS changes will establish consistency with the Limerick

accident analysis and the plant design and support the installation of a digital modification at Limerick during upcoming refueling outages. The proposed Limerick TS changes will temporarily modify TS requirements affecting the mitigation of ATWS events during power production operations, for example, removing the automatic activation of the recirculating pumps for a period of 30 days prior to the refueling outage. The TS requirements for ATWS systems to remain operational and conduct surveillance on automatic activation systems during cold shutdown and refueling operations is temporarily removed so that the systems can be converted from analog to digital. Constellation has evaluated whether a significant hazards consideration is involved with the proposed amendment by focusing on the three conditions set forth in 10 CFR 50.92, "Issuance of amendment," as discussed in the question responses.

Before any issuance of the proposed license amendment, the NRC will need to make the findings required by the Atomic Energy Act of 1954, as amended (the Act), and NRC's regulations.

The NRC has made a proposed determination that the license amendment request involves no significant hazards consideration (NSHC). Under the NRC's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of NSHC, as modified by NRC staff shown in square brackets, which is presented as follows:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

[For changes related to cold shutdown and refuel operations]

The proposed changes revise TS requirements, actions, and testing during cold shutdown and refueling to be consistent with the accident analysis and the plant design. The proposed changes do not change any of the previously evaluated accidents in the Updated Final Safety Analysis Report (UFSAR). None of the accidents previously evaluated in [cold shutdown or refueling] assume a concurrent loss of offsite power or automatic ECCS [emergency core cooling system] initiation. None of the accidents previously evaluated in [cold shutdown and refueling] assume automatic starting of a diesel generator or automatic sequencing of loads on the emergency busses. None of the accidents previously evaluated in [cold shutdown or refueling] assume a manual reactor scram during refueling. None of the accidents previously evaluated assume the reactor equipment interlocks are engaged with the reactor mode switch in Shutdown. Therefore, elimination of these requirements from the TS will have no effect on the likelihood of an accident previously evaluated nor their mitigation. Elimination of the requirement to suspend core alterations with no operable ECCS subsystem in [cold shutdown or refueling] will not affect the initiation of a draining event nor its mitigation.

[For changes related to power production operations]

The proposed changes establish a one-time Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT) LCO [limiting condition for operation] Applicability condition where ATWS-RPT is not required for 30 days under certain plant operational constraints for both channels of ATWS-RPT instrumentation, as well as the applicability and surveillance requirements for the associated Standby Liquid Control System (SLCS) and the Reactor Water Cleanup (RWCU) isolation instrumentation. The ATWS-RPT instrumentation, the SLCS, and RWCU instrumentation are mitigative systems and components. As such, the proposed changes do not impact any accident or event precursors. The probability of an ATWS event occurring does not increase due to this proposed change.

Therefore proposed change[s related to power production operations] do not involve a significant increase in the probability of an accident previously evaluated.

The consequences of the ATWS are not increased since the plant will be operating at a reduced power level [with operational constraints] during the 30 days when ATWS-RPT system is inoperable. The most severe/limiting ATWS events are initiated by a pressurization transient. With SCRAM failure, a pressurization transient can result in a large power spike which may be significantly higher than rated power. The large increase in power exacerbates vessel pressurization.

[...]

[Based on the plant operating at a lower power state with operational constraints, and proposed risk mitigation actions being adopted as compensatory measures, there will be no increase in consequences of this type of event. If the mitigation of an ATWS at full power is comparable to that of the ATWS at this lower power state, with the proposed compensatory measures, then there is no significant increase to the consequences of the systems being changed.]

Therefore, proposed change[s related to ATWS mitigation systems in power production operations] [will] not involve a significant increase in the consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

[For changes related to cold shutdown and refuel operations]

The proposed changes revise TS requirements, actions, and testing during cold shutdown and refueling to establish consistency with the accident analysis and the plant design. The proposed changes do not change the assumed design functions of the affected systems in the applicable [cold shutdown and refuel operations]. The proposed changes do not create any credible new accidents as the associated initiating events, such as loss of power and a draining event, are already considered in the licensing basis.

[For changes related to power production operations]

The proposed changes establish a one-time ATWS-RPT LCO Applicability condition where ATWS-RPT is not required for 30 days under certain plant operational constraints for both channels of ATWS-RPT instrumentation, as well as the applicability and surveillance requirements for the associated SLCS and the RWCU isolation instrumentation. These changes impact a mitigating system for an existing transient. As such, the unavailability of this mitigation system would not be considered an initiator of a new or different kind of accident.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

[For changes related to cold shutdown and refuel operations]

The proposed changes revise TS requirements, actions, and testing during cold shutdown and refueling to be consistent with the accident analysis. The proposed changes do not affect the analysis of any accident or event in the plant's licensing basis. The proposed changes do not alter any design basis or safety limit, or any controlling numerical values for parameters established in the UFSAR or the license.

[For changes related to power production operations]

Based on a deterministic sensitivity analysis of the ATWS AOR [abnormal occurrence report], the proposed changes will not cause a significant reduction in the margin of safety provided that the plant is operated at a reduced thermal power level.

The use of available safety related and non-safety related equipment during the 30-day RRCS [Redundant Reactivity Control System] demolition period, at a reduced power level [with operational constraints], will continue to protect the fuel, reactor, and containment from failure during a postulated ATWS event. The fuel cladding barrier is protected via adequate cooling and SLCS injection. The reactor coolant system boundary is protected by ensuring compliance with the ASME emergency class pressure

limit of 120% of design pressure. The containment is protected by ensuring the suppression pool pressure and temperature limits are met. Thus, there is no need for any reduction in the margin of safety established in the [Limerick] design and licensing basis for the primary fission product barriers.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, Constellation concludes that the proposed amendments do not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of no significant hazards consideration is justified.

The NRC staff has reviewed the licensee's analysis, as modified by the NRC staff, and based on this review, the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the license amendment request involves a NSHC.

The NRC is seeking public comments on this proposed determination that the license amendment request involves no significant hazards consideration. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 60-day notice period. However, if circumstances change during the notice period, such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. If the Commission takes action prior to the expiration of either the comment period or the notice period, it will publish in the *Federal Register* a notice of issuance. The Commission expects that the need to take this action will occur very infrequently.

III. Opportunity to Request a Hearing and Petition for Leave to Intervene

Within 60 days after the date of publication of this notice, any person (petitioner) whose interest may be affected by this action may file a request for a hearing and petition for leave to intervene (petition) with respect to the action. Petitions shall be filed in accordance with the Commission's "Agency Rules of Practice and Procedure" in 10 CFR part 2. Interested persons should consult 10 CFR 2.309. If a petition is filed, the presiding officer will rule on the petition and, if appropriate, a notice of a hearing will be issued.

Petitions must be filed no later than 60 days from the date of publication of this notice in accordance with the filing instructions in the "Electronic Submissions (E-Filing)" section of this document. Petitions and motions for leave to file new or amended contentions that are filed after the deadline will not be entertained absent a determination by the presiding officer that the filing demonstrates good cause by satisfying the three factors in 10 CFR 2.309(c)(1)(i) through (iii).

If a hearing is requested and the Commission has not made a final determination on the issue of no significant hazards consideration, the Commission will make a final determination on the issue of no significant hazards consideration, which will serve to establish when the hearing is held. If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, then any hearing held would take place before the issuance of the amendment unless the Commission finds an imminent danger to the health or safety of the public, in which case it will issue an appropriate order or rule under 10 CFR part 2.

A State, local governmental body, Federally recognized Indian Tribe, or designated agency thereof, may submit a petition to the Commission to participate as a party under 10 CFR 2.309(h) no later than 60 days from the date of publication of this

notice. Alternatively, a State, local governmental body, Federally recognized Indian Tribe, or agency thereof may participate as a non-party under 10 CFR 2.315(c).

For information about filing a petition and about participation by a person not a party under 10 CFR 2.315, see ADAMS Accession No. ML20340A053 (<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20340A053>) and the NRC's public website at <https://www.nrc.gov/about-nrc/regulatory/adjudicatory/hearing.html#participate>.

IV. Electronic Submissions (E-Filing)

All documents filed in NRC adjudicatory proceedings, including documents filed by an interested State, local governmental body, Federally recognized Indian Tribe, or designated agency thereof that requests to participate under 10 CFR 2.315(c), must be filed in accordance with 10 CFR 2.302. The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases, to mail copies on electronic storage media, unless an exemption permitting an alternative filing method, as further discussed, is granted. Detailed guidance on electronic submissions is located in the "Guidance for Electronic Submissions to the NRC" (ADAMS Accession No. ML13031A056) and the NRC's public website at <https://www.nrc.gov/site-help/e-submittals.html>.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by email at Hearing.Docket@nrc.gov, or by telephone at 301-415-1677, to (1) request a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign submissions and access the E-Filing system for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a petition or other adjudicatory document (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals/getting-started.html>. After a digital ID certificate is obtained and a docket created, the participant must submit adjudicatory documents in Portable Document Format. Guidance on submissions is available on the NRC's public website at <https://www.nrc.gov/site-help/electronic-sub-ref-mat.html>. A filing is considered complete at the time the document is submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. ET on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an email confirming receipt of the document. The E-Filing system also distributes an email that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the document on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before adjudicatory documents are filed to obtain access to the documents via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC's Electronic Filing Help Desk through the "Contact Us" link located on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals.html>, by email to MSHD.Resource@nrc.gov, or by a toll-free call at 1-866-672-7640. The NRC Electronic Filing Help Desk is available between 9 a.m. and 6 p.m., ET, Monday through Friday, except Federal holidays.

Participants who believe that they have good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing stating why there is good cause for not filing electronically and requesting authorization to continue to submit documents in paper format. Such filings must be submitted in accordance with 10 CFR 2.302(b)-(d). Participants filing adjudicatory documents in this manner are responsible for serving their documents on all

other participants. Participants granted an exemption under 10 CFR 2.302(g)(2) must still meet the electronic formatting requirement in 10 CFR 2.302(g)(1), unless the participant also seeks and is granted an exemption from 10 CFR 2.302(g)(1).

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket, which is publicly available at <https://adams.nrc.gov/ehd>, unless excluded pursuant to an order of the presiding officer. If you do not have an NRC-issued digital ID certificate as previously described, click "cancel" when the link requests certificates and you will be automatically directed to the NRC's electronic hearing dockets where you will be able to access any publicly available documents in a particular hearing docket. Participants are requested not to include personal privacy information such as social security numbers, home addresses, or personal phone numbers in their filings unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants should not include copyrighted materials in their submission.

For further details with respect to this action, see the application for license amendment dated February 17, 2023 (ADAMS Accession No. ML23052A023), as supplemented on July 21, 2023 (ADAMS Accession No. ML23202A219), July 31, 2023 (ADAMS Accession No. ML23212B105), and August 16, 2023 (ADAMS Accession No. ML23228A094).

Attorney for licensee: Jason Zorn, Associate General Counsel, Constellation Energy Generation, LLC, 101 Constitution Ave, NW, Suite 400 East, Washington, DC 20001.

NRC Branch Chief: Hipolito J. Gonzalez.

Dated: October 24, 2023.

For the Nuclear Regulatory Commission.

Hipolito J. Gonzalez,
*Chief, Plant Licensing Branch I,
Division of Operating Reactor Licensing,*

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