

From: Audrey Klett
Sent: Thursday, July 27, 2023 10:40 AM
To: Flickinger, Stephen F:(Constellation Nuclear)
Subject: Limerick Generating Station - Audit Plan for TSTF-477 LAR Review (L-2022-LLA-0174)
Attachments: Limerick Audit Plan - Emailed Version.docx

Hi Steve,
Attached is the audit plan for the subject LAR. Please let me know if you have any questions.

-Audrey

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Recipients:
"Flickinger, Stephen F:(Constellation Nuclear)" <Stephen.Flickinger@constellation.com>
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**REGULATORY AUDIT PLAN
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
IN SUPPORT OF LICENSE AMENDMENT REQUEST TO
ADOPT TSTF-477, REVISION 3 AND OTHER CHANGES
CONSTELLATION ENERGY GENERATION, LLC
LIMERICK GENERATING STATION, UNITS 1 AND 2
DOCKET NOS. 50-352 AND 50-353**

1.0 BACKGROUND

By letter dated November 17, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22321A105), Constellation Energy Generation, LLC (the licensee) requested to amend Renewed Facility Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station, Units 1 and 2. The licensee requested to adopt TSTF-477, Revision 3, "Add Action for Two Inoperable Control Room AC Subsystems" (72 FR 141432, dated March 26, 2007) and associated technical specification changes.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's application and determined that a regulatory audit would assist in the timely completion of the review. The NRC staff will conduct a regulatory audit to support its review in accordance with the enclosed audit plan. A regulatory audit is a planned activity that includes the examination and evaluation of primarily non-docketed information.

The NRC staff will conduct the audit to increase its understanding of the application and identify information that will require docketing to support the NRC staff's regulatory findings. The NRC staff will conduct the audit virtually from approximately August 14-18, 2023.

2.0 REGULATORY AUDIT BASIS

A regulatory audit is a planned license- or regulation-related activity that includes the examination and evaluation of information of primarily non-docketed information. NRC staff conducts an audit to gain understanding, verify information, and identify information that will require docketing to support the basis of a licensing or regulatory decision. An audit helps the NRC staff with understanding the licensee's proposed changes, conducting its review, and gaining insights on the licensee's processes and procedures related to the proposed changes.

The NRC staff will conduct this audit per Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-111, "Regulatory Audits" (ML19226A274), with exceptions noted within this audit plan. The NRC staff will perform the audit to support its evaluation of whether the licensee's request can be approved per Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.90, "Application for amendment of license, construction permit, or early site permit." The NRC staff will use the NRR Office Instruction LIC-115, "Processing Requests for Additional Information" (ML21141A238), to request information needed to make a licensing or regulatory decision.

3.0 REGULATORY AUDIT SCOPE AND METHODOLOGY

NRC's goals of the audit are the following:

- Gain a better understanding of the detailed calculations, analyses, and bases underlying the LAR and confirm the staff's understanding of the LAR.
- Gain a better understanding of plant design features and their implications for the LAR.
- Identify any information needed to enable the staff's evaluation of whether the proposed changes challenge design-basis functions or adversely affect the capability or capacity of plant equipment to perform design-basis functions.
- Identify questions and requests that may become requests for additional information per NRR Office Instruction LIC-115.

4.0 INFORMATION AND OTHER MATERIAL NECESSARY FOR THE AUDIT

The NRC staff will request information (e.g., methodology, process information, and calculations) and interviews throughout the audit period. The NRC staff's initial audit questions and discussion topics are listed in the attachment to this audit plan. The NRC's licensing project manager will email any additional audit questions or requests as supplements to this audit plan so that the licensee can better prepare for audit discussions with NRC staff. The NRC staff requests the licensee to have the requested audit information listed below to be readily available and accessible for the NRC staff's review via a Web--based portal. Any information accessed through the licensee's portal will not be held or retained in any way by NRC staff. The NRC staff will schedule audit meetings with the licensee as needed.

ITEM No.	AUDIT REQUEST
1	Clarification of which supplementary cooling provisions discussed in the LAR that are beyond the scope of TSTF-477, Revision 3, that the licensee is requesting NRC staff review and approval
2	High level description of the control enclosure and the control envelope (including elevations and major equipment in each), supported by sketches and/or drawings showing the doors leading from the turbine enclosure to the control enclosure and control envelope, including confirmation of whether the doors are qualified to withstand high energy line break (HELB).
3	Description of the temporary chiller water hose's (jumper's) proximity to the control room (including a description of where the jumper will be located and routed from the turbine enclosure to the control enclosure) and available monitoring to identify the onset of a HELB in the turbine enclosure
4	Description of the ability of operators to close the HELB door between the turbine enclosure and control enclosure during a HELB event in the turbine enclosure
5	Description of the consequences to the control enclosure and its operability (including whether control room habitability is affected) if there is a HELB or if the temporary chiller water hose (jumper) breaks
6	Description of how the plant would be brought to a safe shutdown condition if a HELB occurs during the proposed jumper supplementary cooling provision (e.g., operators' ability to detect and respond to a HELB)
7	High level description of factors that make a catastrophic pipe failure in the turbine building unlikely in the plant configuration requested in the LAR

ITEM No.	AUDIT REQUEST
8	Description of the ability of operators or a leakage detection system to detect leakage in the turbine enclosure prior to a HELB (including the leak rates that may be detected)
9	Description of the actions operators would take if leakage was detected in the turbine enclosure prior to a HELB

5.0 TEAM ASSIGNMENTS

The audit team will consist of the following NRC staff.

- Nageswara (Rao) Karipineni, (SCPB)
- Steven Alferink, (APLC)
- Steve Wyman, (EEEEB)
- DaBin Ki, (IOLB)
- Joshua Wilson, Technical Specifications Branch (STSB)
- Audrey Klett, Plant Licensing Branch 1 (LPL1)
- Elena Herrera Torres, LPL1

6.0 LOGISTICS

Audit activities will be performed remotely and virtually using Microsoft Teams, teleconference, and any Web-based portals or meeting spaces created by the licensee. NRC information requests and communications with licensee staff will be coordinated through the NRC's licensing project manager.

The audit will occur approximately August 14-18, 2023. If requested, the audit team will meet virtually with the licensee for the purposes of introducing the team, discussing the scope of the audit, and describing the information to be made available on the internet portal. The audit team will also confirm with the licensee if the information made available on the online portal contains any sensitive or proprietary information. The audit team may request that the licensee and its representatives answer any audit team questions during the audit related to information provided on the portal at a mutually agreeable day and time by Microsoft Teams meetings. The NRC will work with the licensee to schedule additional audit meetings to discuss information needs and questions arising from the NRC's review of the audited information.

7.0 SPECIAL REQUESTS

The NRC requests access to requested documents and information through an online portal that allows the NRC staff to access documents over the Internet. The following conditions associated with the online portal must be maintained while the NRC staff have access to the online portal:

- The online portal will be password-protected. A separate password will be assigned to each member of the NRC staff and NRC contractors participating in the audit.
- The online portal will prevent the NRC participants from printing, saving, downloading, or collecting any information directly from the online portal.
- Conditions of use of the online portal will be displayed on the login screen and will require acknowledgment by each user.

Username and password information should be provided directly to members of the NRC staff and contractors. The NRC licensing project manager will provide the licensee names and contact information of the NRC staff and contractors participating in the audit. All other communications should be coordinated through the NRC project manager.

The NRC staff requests the licensee to have the information referenced in section 4.0 of this audit plan and any supplemental information requested be available and accessible for review via an internet-based portal as soon as practical. The NRC's licensing project manager will inform the licensee via routine communications when the NRC staff no longer needs access to the portal. The NRC staff requests the licensee to notify the NRC's licensing project manager when responses are added to its portal.

8.0 DELIVERABLES

The NRC staff will develop any requests for additional information (RAIs), as needed, via NRR Office Instruction LIC-115 and issue such RAIs separately from audit-related correspondence. The NRC staff will issue an audit summary report prior to completing its review of the LAR.