



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

November 14, 2022

LICENSEE: Constellation Energy Generation, LLC

FACILITY: Braidwood Station, Units 1 and 2, Byron Station, Unit Nos. 1 and 2, Calvert Cliffs Nuclear Station, Units 1 and 2, and R. E. Ginna Station

SUBJECT: SUMMARY OF AUGUST 22, 2022, MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND CONSTELLATION ENERGY GENERATION, LLC, REGARDING PERFORMANCE MONITORING OF STEAM GENERATOR WELDS (EPIDS L-2021-LLR-0074, 0076, 0079, 0091, 0092, 0093 AND 0094)

On August 22, 2022, an observation meeting was held between the staff of the U.S. Nuclear Regulatory Commission (NRC) and Constellation Energy Generation LLC (Constellation), via the Microsoft TEAMS meeting application. The purpose for this meeting was for the NRC to ask clarification questions regarding Constellation's May 20, 2022, and June 17, 2022 (Agencywide Documents Access Management System (ADAMS) Accession Nos. ML22168A005 and ML22140A055), responses to the NRC staff's request for additional information dated May 6, 2022 (ML22129A013).

The meeting was published on the NRC's public web page on August 10, 2022 (ML22234A046). No handout material was provided.

A list of meeting attendees/affiliations is provided as an Enclosure to this meeting summary.

### Summary

The NRC staff asked clarifying questions regarding Constellation's June 17, 2022, response to the staff's request for additional information and compared it to Constellation's April 8, 2022 (ML22098A179), response which proposed inspecting 7 out of 40 welds for the Byron and Braidwood pressurizers. The monitoring plans for steam generator welds provided in Constellation's May 20, 2022, and June 17, 2022, letters are significantly less in scope.

Constellation responded that there is no guidance for such monitoring plans and therefore it is difficult to understand why the proposed monitoring plans are not acceptable and difficult to understand what would be an acceptable monitoring plan. The NRC staff stated that the Electric Power Research Institute (EPRI) report, "Technical Bases for Inspection Requirements for PWR [pressurized-water reactor] Steam Generator Class 1 Nozzle-to-Vessel Welds and Class 1 and Class 2 Vessel Head, Shell, Tubesheet-to-Head and Tubesheet-to-Shell Welds" (ML20225A141), referenced in Constellation's letter dated December 14, 2021 (ML21348A078), provided probabilistic fracture mechanics evaluations and is therefore risk based.

Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," dated January 2018 (ML17317A256), identifies in Element 3, "Define Implementation and Monitoring Program," of the NRC staff's four element approach to evaluating risk-based licensing basis changes, that:

The primary goal of Element 3 is to ensure that no unexpected adverse safety degradation occurs because of the change(s) to the licensing basis. The staff's principal concern is the possibility that the aggregate impact of changes that affect a large class of SSCs [structure, system, and components] could lead to an unacceptable increase in the number of failures from unanticipated degradation, including possible increases in common-cause mechanisms. Therefore, an implementation and monitoring plan should be developed to ensure that the engineering evaluation conducted to examine the impact of the proposed changes continues to reflect the actual reliability and availability of the SSCs evaluated. This ensures that the conclusions drawn from the evaluation remain valid.

The NRC staff stated that it needs additional information that demonstrates how the Constellation proposed monitoring plan meets the guidance in RG 1.174. Constellation asked if those units that did not request relief significantly beyond its current inspection interval also need to provide additional information regarding the performance monitoring plan. The NRC staff agreed to consider issuing safety evaluations without a proposed monitoring plan for those units for which relief was not requested significantly beyond the current inspection interval.

There were no final determinations or regulatory decisions made by the NRC staff during the meeting.

#### Public Participation

One individual from Structural Integrity Associates, attending as a member of the public requested to speak and stated that he did not think any information was necessary and that the EPRI report was sufficient to support the relief requests. No meeting feedback forms were received.

Please direct any inquiries to me at 301-415-6606 or by email at [Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov).

*/RA/*

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

Docket Nos. 50-244, 50-317, 50-318,  
50-454, 50-455, 50-456, and 50-457

Enclosure:  
List of Attendees

cc w/encl: Listserv

LIST OF ATTENDEES/AFFILIATION/ORGANIZATION  
SUMMARY OF AUGUST 22, 2022, MEETING BETWEEN THE  
NUCLEAR REGULATORY COMMISSION (NRC)  
AND CONSTELLATION ENERGY GENERATION, LLC,  
REGARDING PERFORMANCE MONITORING OF STEAM GENERATOR WELDS

<u>ATTENDEES</u>	<u>AFFILIATION/ORGANIZATION</u>
Wiebe, Joel	NRC
Widrevitz, Dan	NRC
Medoff, James	NRC
Buford, Angie	NRC
Tsao, John	NRC
Sreenivas, V	NRC
Benson, Michael	NRC
Rudland, David	NRC
Dijamco, David	NRC
Anchondo-Lopez, Isaac	NRC
Moyer, Carol	NRC
Mahoney, Michael	NRC
Mitchell, Matthew	NRC
Loomis, Thomas	Constellation Energy Generation Co. LLC (Constellation)
Gudger, David	Constellation
Reddick, Darani	Constellation
Mokkapati, Sailaja	Constellation
Weis, Mark	Constellation
Basso, Thomas	Constellation/Nuclear Energy Institute
Cofie, Nat	Structural Integrity Associates

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RidsNrrPMCalvertCliffs Resource  
RidsNrrPMREGinna Resource  
PChandrathil, RGN III OPA

**ADAMS Accession No.: ML22264A199**

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LPL3/LA	NRR/NVIB/BC
NAME	JWiebe	SRohrer	ABuford
DATE	9/27/2022	9/21/2022	10/27/2022
OFFICE	NRR/DORL/LPL3/BC	NRR/DORL/LPL3/PM	
NAME	NSalgado (SWall for)	JWiebe	
DATE	11/10/2022	11/14/2022	

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