



# Constellation

Constellation Energy Generation, LLC (CEG)  
Byron Station  
4150 N. German Church Road  
Byron, IL 61010-9794

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July 15, 2022

LTR: BYRON 2022-0045  
FILE: 1.10.0101 (1D.101)

United States Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Byron Station, Unit 2  
Facility Operating License No. NPF-66  
NRC Docket No. STN 50-455

SUBJECT: Byron Station Unit 2 90-Day Inservice Inspection Report for Interval 4, Period 2,  
(B2R23)

The subject 90-Day Inservice Inspection Report for the Byron Station Unit 2, Refueling Outage Twenty-Three (B2R23) is being submitted pursuant to the requirements of Article IWA-6000, "Records and Reports" of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code 2007 Edition / 2008 Addenda.

This letter provides a copy of Form OAR-1, Owner's Activity Report, for inservice inspection activities performed during the previous fuel cycle. This report meets the requirements of the ASME Code Case N-532-5, "Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission." The report covers the inservice inspections conducted prior to and during the Unit 2 Spring 2022 refueling outage.

If there are any questions regarding this matter, please contact Ms. Zoe Cox, Regulatory Assurance Manager, at (815) 406-2800.

Respectfully,

Harris Welt  
Site Vice President  
Byron Generating Station

HW/JB/JA/sg

Attachment

## FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number B2R23  
Plant Byron Generating Station, 4450 North German Church Road, Byron, IL 61010  
Unit No. 2 Commercial Service Date August 22, 1987 Refueling Outage No. B2R23  
(If applicable)  
Current Inspection Interval Fourth Inspection Interval (ISI), Third Inspection Interval (Containment ISI)  
(1st, 2nd, 3rd, 4th, other)  
Current Inspection Period Second Inspection Period (ISI and Containment ISI)  
(1st, 2nd, 3rd)  
Edition and Addenda of Section XI applicable to the inspection plans ASME Section XI 2007 Edition through 2008 Addenda  
Date and revision of inspection plans January 4th, 2017 | Rev. 1; August 18th, 2018 | Rev. 2; October 30th, 2020 Rev 0  
Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans Same as above  
Code Cases used for inspection and evaluation: N-508-4, N-532-5, N-639, N-706-1, N-722-2, N-729-6, N-731, N-770-5, N-798, N-800  
(If applicable, including cases modified by Case N-532 and later revisions)

### CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of B2R23 conform to the requirements of Section XI. (refueling outage number)

Signed Joseph Buchanan / Byron Materials Date 7/7/2022  
Owner or Owner's Designated Title Engineer

### CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford, Connecticut have inspected the items described in this Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

James K. Hamer Commission NB 11622 INR IL 017431C  
Inspector's Signature (National Board Number and Endorsement)  
Date 7 JUL 22

**TABLE 1**  
**ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED**  
**EVALUATION FOR CONTINUED SERVICE**

Examination Category and Item Number	Item Description	Evaluation Description
AUG / B4.20 (N-729-6)	U2 Reactor Vessel Head Penetration 75	EC#636638 - OP EVAL 22-001 - FRAMATOME EVALUATION OF BYRON ACCEPTANCE OF UNIT 2 PEN 75 NOZZLE INDICATION
F-A / F1.40	2A SX Pump Discharge Strainer Support, 2SX-010FA/S	IR#04494143 – RELEVANT CONDITION IDENTIFIED ON 2SX-01-FA/S

**TABLE 2**  
**ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR**  
**CONTINUED SERVICE**

Code Class	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
None	N/A	N/A	N/A	N/A

## **ATTACHMENT 1**

### **B2R23 CONTAINMENT ISI (IWE/IWL) RESULTS**

#### **B2R23 CONTAINMENT ISI IWE ACTIVITIES**

During the B2R23 outage, examinations were completed for the Unit 2 containment liner to comply with the requirements of IWE-2400.

As a result, the provision of 10CFR50.55a(b)(2)(ix)(A) for metal containment examinations has been reviewed for applicability to the B2R23 examinations performed, and no conditions were identified that warrant inclusion in this report.

#### **UNIT 2 CYCLE 23 CONTAINMENT ISI IWL ACTIVITIES**

During the 23<sup>rd</sup> fuel cycle on Unit 2, the fifth, 5-year IWL examination for Class CC concrete surfaces was completed on the Unit 1 and Unit 2 containments to comply with the requirements of IWL-2400.

As a result, the provision of 10CFR50.55a(b)(2)(viii)(E) for concrete containment examinations has been reviewed for applicability to the Cycle 23 concrete examinations performed, and no conditions were identified that warrant inclusion in this report.