



Constellation Energy Generation, LLC (CEG)
Byron Station
4450 N. German Church Road
Byron, IL 61010-9794

www.constellationenergy.com

June 8, 2023

LTR: BYRON 2023-0033
FILE: 1D.101

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

Byron Station, Unit 1
Facility Operating License No. NPF-37
NRC Docket No. STN50-454

SUBJECT: Byron Station Unit 1 90-Day Inservice Inspection Report for Interval 4, Period 3,
(B1R25)

The subject 90-Day Inservice Inspection Report for the Byron Station Unit 1, Refueling Outage Twenty-Five (B1R25) 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 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 1 Spring 2023 refueling outage.

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

Respectfully,

A handwritten signature in black ink, appearing to read "Harris Welt".

Harris Welt
Site Vice President
Byron Generating Station

HW/JB/JA/hh

Enclosure

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number B1R25
Plant Byron Generating Station, 4450 North German Church Road, Byron, IL 61010
Unit No. 1 Commercial Service Date September 16, 1985 Refueling Outage No. B1R25
(if applicable)
Current Inspection Interval Fourth Inspection Interval (ISI), Third Inspection Interval (Containment ISI)
(1st 2nd 3rd 4th other)
Current Inspection Period Third 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 the 2008 Addenda
Date and revision of inspection plans BYR-525537-01-RP04, Rev 0, 7/29/2016; BYR-525537-01-RP04, Rev 1, 1/4/2017; BYR-525537-01-RP04, Rev 2, 8/10/2018; ER-BY-330-1001, Rev 0, 10/30/2020

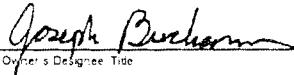
Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans Same as above

Code Cases used for inspection and evaluation: N-432-1, N-508-4, N-513-3, N-513-4, N-513-5, N-516-4, N-516-5, N-526, N-532-5, N-552-1, N-561-2, N-561-3, N-562-2, N-569-1, N-578-1, N-586-1, N-593-2, N-597-2, N-597-3, N-600, N-613-2, N-629, N-638-7, N-638-10, N-639, N-641, N-643-2, N-648-1, N-648-2, N-651, N-653-1, N-653-2, N-660, N-661-2, N-661-3, N-666-1, N-695-1, N-696-1, N-705, N-705-1, N-706-1, N-711-1, N-722-1, N-729-6, N-731, N-733, N-735, N-747, N-749, N-751, N-754-1, N-762, N-762-1, N-765, N-766-1, N-766-3, N-768, N-770-5, N-771, N-773, N-775, N-776, N-778, N-786-1, N-786-3, N-789, N-789-2, N-789-3, N-798, N-800, N-803, N-805, N-809, N-823, N-823-1, N-824, N-825, N-829, N-830, N-831, N-831-1, N-838, N-839, N-843, N-845, N-845-1, N-847, N-848-1, N-851, N-853, N-854, N-858, N-864, N-865, N-867, N-869, N-874, N-877, N-878, N-879, N-880, N-882, N-885, N-889, N-890, N-892

(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 B1R25 conform to the requirements of Section XI. (refueling outage number)

Signed Joseph Buchanan  ISI Program Owner Date 5/24/2023
Owner or Owner's Designee Title

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.

 Commission NB11622 INR 1LΦ1743/C
Inspector's Signature (National Board Number and Endorsement)

Date 25 MAY 23

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

Examination Category and Item Number	Item Description	Evaluation Description
F-A / F1.40	SX PUMP 1A SUPPORT, 1SX-01-PA/S	IR#04561294 – B1R25 ISI - Relevant Condition on 1SX01PA Support
F-A / F1.10	SUPPORT RIGID SEISMIC RESTRAINT FOR LINE 1SI05DA-6IN, 1SI05DA-6/1SI01019X	IR#04561174 – B1R25 ISI - Relevant Condition Identified on 1SI01019X Strut
F-A / F1.40	CC HX 0A SUPPORT, 0CC-01-A/S	IR#04560132 – Relevant Condition - VT-3 Exam of U0 CC HX Support

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

Code Class	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
1	1D RCP LOWER SEAL HOUSING BOLTS	Replace (5) 1D RCP lower seal housing bolts due to recordable indications identified during VT-1 exam	3/19/2023	05257311-01
3	WELD BETWEEN U-0 CC HX CHANNEL TO 0SX02D-30" INLET PIPE	Repair SX inlet pipe 0SX02D-30" through-wall weld leak to U0 HX by performing weld	3/31/2023	05346990-01

ATTACHMENT 1

B1R25 CONTAINMENT ISI (IWE/IWL) RESULTS

B1R25 CONTAINMENT ISI IWE ACTIVITIES

During the B1R25 outage, examinations were completed for the Unit 1 containment liner to comply with the requirements of IWE-2400. Examinations were completed and documented under WO#05213387.

As a result, the provisions of 10CFR50.55a(b)(2)(ix)(A) for metal containment examinations has been reviewed for applicability to the B1R25 examinations performed, and no conditions were identified in accessible areas that would indicate the presence of or could result in degradation to inaccessible areas.

UNIT 1 CYCLE 25 CONTAINMENT ISI IWL ACTIVITIES

During the 25th fuel cycle on Unit 1, 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. For Unit 1, the required examinations were completed and documented under WO#04328907.

As a result, the provisions of 10CFR50.55a(b)(2)(viii)(E) for concrete containment examinations has been reviewed for applicability to the Cycle 25 concrete examinations performed, and no conditions were identified in accessible areas that could indicate the presence of or result in degradation to inaccessible areas.