Kevin M. Ellis
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Serial: RA-23-0043 10 CFR 50.55a
March 30, 2023

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23

SUBJECT: H. B. Robinson Steam Electric Plant Unit No. 2, Refuel 33 (R2R33) Inservice Inspection Program Ninety Day Owner's Activity Report and Analytical Evaluations

Ladies and Gentlemen:

Pursuant to the reporting requirements of American Society of Mechanical Engineers (ASME) Section XI, as amended by ASME Code Case N-532-5, Duke Energy Progress (Duke Energy) hereby submits the Owner's Activity Report for the H. B. Robinson Nuclear Plant, Unit No. 2 (RNP) Fall 2022 outage R2R33 (Enclosure 1). In addition, pursuant to ASME Section XI, IWB-3144, two analytical evaluations performed in accordance with IWB-3142.4, "Acceptance by Analytical Evaluation," are provided in Enclosures 3 and 4 for information only.

Enclosures 3 and 4 contain information proprietary to Westinghouse Electric Company LLC ("Westinghouse"), and are supported by an Affidavit (Enclosure 2) signed by Westinghouse, the owner of the information. The Affidavit sets forth the basis on which the information may be withheld from public disclosure by the Nuclear Regulatory Commission ("Commission") and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.390 of the Commission's regulations. Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations. Correspondence with respect to the copyright or proprietary aspects or the supporting Westinghouse Affidavit should reference CAW-23-006 and should be addressed to Camille T. Zozula, Manager, Regulatory Compliance & Corporate Licensing – Westinghouse Electric Co. LLC (zozulact@westinghouse.com).

PROPRIETARY INFORMATION - WITHHOLD UNDER 10 CFR 2.390
UPON REMOVAL OF ENCLOSURES 3 AND 4 THIS LETTER IS UNCONTROLLED

No new regulatory commitments have been made in this submittal. If you have additional questions, please contact Ryan Treadway, Director – Nuclear Fleet Licensing, at 980-373-5873.

Sincerely,

Kevin M. Ellis
General Manager – Nuclear Regulatory Affairs, Policy & Emergency Preparedness

Enclosures:

1. Ninety Day Owner's Activity Report for Refueling Outage 33
2. Affidavit of Westinghouse Electric Company LLC
3. CPL-RV010-TM-CA-000007, Rev. 0, "H.B. Robinson Unit 2 Fall 2022 Outage - Disposition of Reactor Vessel Internals Core Barrel Cracking and Justification for Return to Service" (Proprietary)
4. CPL-RV010-TM-CJ-000001, Rev. 0, "Assessment of Indications on the Upper Core Plate Alignment Pins for H.B. Robinson Unit 2" (Proprietary)

cc:

L. Dudes, Regional Administrator USNRC Region II
J. Zeiler, NRC Senior Resident Inspector
L. Haeg, NRC Project Manager, NRR

Enclosure 1
Ninety Day Owner's Activity Report for Refueling Outage 33

CASE
N-532-5

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number RA-23-0043

Plant H.B. Robinson Steam Electric Plant, 3581 West Entrance Road Hartsville, SC 29550

Unit No. 2 (if applicable) Commercial service date March 7, 1971 Refueling outage no. R2R33

Current inspection interval Fifth Inspection Interval (ISI), Third Inspection Interval (Containment ISI)
(1st, 2nd, 3rd, 4th, other)

Current inspection period Third Period (ISI), First Period (CISI)
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plans: ASME Section XI 2007 Edition through 2008 Addenda, 2017 Edition (See Attachment 1); 2013 Edition (CISI)

Date and revision of inspection plans: See Attachment 1

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:
Code Cases Available for Use:
N-432-1, N-508-4, N-513-4, N-516-4, N-526, N-532-5, N-586-1, N-597-2, N-600 613-2, N-629, N-639, N-641, N-643-2, N-648-2, N-651, N-660, N-663, N-705, N-706-1, N-716-1, N-722-1, N-729-6, N-731, N-735, N-762-1, N-768, N-770-5, N-798, N-800, N-845
(if applicable, include 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 R2R33 (refueling outage number) conform to the requirements of Section XI.

Signed Angela Staller Digitally signed by E50268 (342024) Date: 2023.03.21 09:49:39 -04'00' Angela Staller, ISI Program Owner Date
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 the State or Province of North Carolina and employed by Bureau Veritas Inspection and Insurance Company 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.

EELKOUR (365010) Digitally signed by EELKOUR (365010) Date: 2023.03.27 11:17:06 -04'00' Commissions NB #13930, NC# 1600 A.N.I.C.
Inspector's Signature National Board, State, Province, and Endorsements

Attachment 1

H.B. Robinson Steam Electric Plant Refueling Outage 33, Inservice Inspection Report

The H.B. Robinson Steam Electric Plant, Unit 2, Fifth Ten-Year Interval Inservice Inspection (ISI) Plan and Third Ten-Year Containment Inservice Inspection (CISI) Plan complies with 10CFR50.55a(g), which implements, by reference, the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2007 Edition through 2008 Addenda for ISI, and the 2013 Edition for Containment ISI. The 2017 Edition of Section XI is also applicable for IWA-4340, IWA-4540(b), IWA-5120, IWA-5213, IWA-5241, IWA-5242 and IWA-5250 in accordance with three RIS letters, ADAMS Accession Numbers ML21113A013, ML20300A206 and ML21029A335.

This summary report is submitted pursuant to the reporting requirements of ASME Section XI as amended by ASME Code Case N-532-5, “Repair/Replacement Activity Documentation Requirements and Inservice Inspection Summary Report Preparation and Submission Section XI, Division 1”.

Refueling Outage 33 (R2R33) is the second of two outages of the third period in the fifth inspection interval for the ISI and Pressure Testing programs, and the second of two outages of the first period in the third inspection interval for the Containment ISI program. See the table below for the dates and revisions of the inservice inspection plans.

Document Title	Document Number and Revision	Date of Issue
Fifth Ten-Year Interval Inservice Inspection Plan	RNP-PM-008, Rev. 11	April 20, 2021
Fifth Ten-Year Interval Inservice Inspection Schedule	RNP-PM-009, Rev. 8	April 20, 2021
Augmented Inservice Inspection (AISI) Plan and Schedule	RNP-PM-012, Rev. 2	February 2, 2021
Third Ten-Year Interval Inservice IWE/IWL Inspection Plan	RNP-PM3-006, Rev. 0	September 9, 2019
Third Ten-Year Interval Inservice IWE/IWL Inspection Schedule	RNP-PM3-007, Rev. 0	September 9, 2019

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	Support 101D/CRDM SSS, CRDM Seismic Support: one of four tie rods has a turnbuckle locking nut with a gap of approximately 1/8" (not snug to backing).	Support was evaluated as functional and acceptable for continued service in its as found condition per EVAL-22-001 on Datasheet VT-22-006. NCR 2450435 was generated to address the condition.
F-A/F1.10B	Support 143/RC-3-136: Top right and bottom left anchors are not flush to surface.	Support was evaluated as functional and acceptable for continued service in its as found condition per EC 421967. NCR 2450808 was generated to address the condition.
F-A/F1.40	Support 205A/Ring, SG "B" Lateral Ring: Loose nuts were discovered on the snubber assembly.	Support was evaluated as functional and acceptable for continued service in its as found condition per the evaluation documented per EVAL-22-005 on Datasheet VT-22-058. NCR 2451398 was generated to address the condition.
F-A/F1.20C	Support 217/FW-5C-6073: Upper and lower sliding surface stanchions of spring can are misaligned.	Support was evaluated as functional and acceptable for continued service in its as found condition per the evaluation per EVAL-22-004 on Datasheet VT-22-057. NCR 2451359 was generated to address this condition.
F-A/F1.20C	Support 263/FW-2-6051: The settings were found to be out of tolerance on the spring hanger.	Support was evaluated as functional and acceptable for continued service in its as found condition per the evaluation documented on report EVAL-22-002. NCR 2450517 was generated to address the condition.
B-N-3/B13.70	101/CCS, Core support structure: Five linear indications were discovered in the vicinity of the core barrel upper girth weld.	NCR 2451316 was generated to address the condition. An IWB-3142.4 evaluation was performed for all five indications resulting in acceptance of four out of five for one additional 24-month cycle. The fifth indication exceeded the allowable flaw size for one additional 24-month cycle, therefore was remediated via crack arrest holes. Reference Westinghouse Evaluation CPL-RV010-TM-CA-000007 included in this submittal. Successive examinations are scheduled for the next three inspection periods in accordance with IWB-2420(b).

B-N-3/B13.70	101/CCS, Core support structure: Linear indications discovered at the upper core plate (UCP) to core barrel interface and on UCP alignment pins.	NCR 2450925 was generated to address the condition. An IWB-3142.4 evaluation was performed for the indications resulting in acceptability for continued service in the as-found condition. Reference Westinghouse Evaluation CPL-RV010-TM-CJ-000001 included in this submittal. Successive examinations are scheduled for the next three inspection periods in accordance with IWB-2420(b).
C-H/C7.10	Boric acid residue found during the performance of EST-080, Pressure test for the RHR system	Relevant conditions identified in NCR 2450199 were evaluated for continued service by Engineering and found to be acceptable.
B-P/B15.10	Boric acid residue found during the performance of EST-083-1, Pressure test of Class 1 Bolting	Relevant conditions identified in NCRs 2450299, 2451284 and 2450397 were evaluated for continued service by Engineering and found to be acceptable.
D-B/D2.10	Boric acid found during the performance of EST-084, Pressure Test for the Spent Fuel Cooling System	Relevant conditions identified in NCR 2450259 were evaluated for continued service by Engineering and found to be acceptable.

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	3/8”-SL-2505R-2	Repair cracked weld at socket welded insert	12/14/2022	20296325-04
1	RCP-B	Remove and replace corroded main flange studs	10/29/2021	20498290-37
2	2-CH-2502R-229	Repair weld leak in toe of branch weld	8/20/2022	20554904-01
2	4-CH-151R-47	Repair crack in pipe line	12/8/2022	20570497-09
1	RPV Core Barrel	EDM performed to create two 1.5” diameter crack arrest holes on linear indication 1 to prevent further propagation	12/17/2022	20573436-09

Enclosure 2
Affidavit of Westinghouse Electric Company LLC

Commonwealth of Pennsylvania:
County of Butler:

(1) I, Zachary Harper, Senior Manager, Licensing Engineering, have been specifically delegated and authorized to apply for withholding and execute this Affidavit on behalf of Westinghouse Electric Company LLC (Westinghouse).

(2) I am requesting CPL-RV010-TM-CJ-000001, Rev. 0 & CPL-RV010-TM-CA-000007, Rev. 0 be withheld from public disclosure under 10 CFR 2.390.

(3) I have personal knowledge of the criteria and procedures utilized by Westinghouse in designating information as a trade secret, privileged, or as confidential commercial or financial information.

(4) Pursuant to 10 CFR 2.390, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.

(i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse and is not customarily disclosed to the public.

(ii) The information sought to be withheld is being transmitted to the Commission in confidence and, to Westinghouse's knowledge, is not available in public sources.

(iii) Westinghouse notes that a showing of substantial harm is no longer an applicable criterion for analyzing whether a document should be withheld from public disclosure. Nevertheless, public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar technical evaluation justifications and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

(5) Westinghouse has policies in place to identify proprietary information. Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

(a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.

(b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage (e.g., by optimization or improved marketability).

(c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.

(d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.

(e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.

(f) It contains patentable ideas, for which patent protection may be desirable.

(6) The attached submittal contains proprietary information throughout, for the reasons set forth in Sections (5) (a) and (c) of this Affidavit. Accordingly, a redacted version would be of no value to the public.

I declare that the averments of fact set forth in this Affidavit are true and correct to the best of my knowledge, information, and belief. I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 2/20/2023

Signed electronically by
Zachary Harper

Approval Information

Manager Approval Harper Zachary S Feb-20-2023 12:18:40

Files approved on Feb-20-2023

Enclosure 3
CPL-RV010-TM-CA-000007, Rev. 0, "H.B. Robinson Unit 2 Fall 2022 Outage - Disposition of Reactor Vessel Internals Core Barrel Cracking and Justification for Return to Service"

(Proprietary)

Enclosure 4
CPL-RV010-TM-CJ-000001, Rev. 0, "Assessment of Indications on the Upper Core Plate Alignment Pins for H.B. Robinson Unit 2"

(Proprietary)