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10 CFR 50.55a

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

H. B. Robinson Steam Electric Plant, Unit No. 2
Docket Number 50-261
Renewed Facility Operating License No. DPR-23

Subject: H.B. Robinson Steam Electric Plant, Unit No. 2 – Relief Request RA-19-0428 for One-Time Pressure Relief Valve Test Frequency Extension

Ladies and Gentlemen,

Pursuant to 10 CFR 50.55a(z)(2), Duke Energy Progress, LLC (Duke Energy) is submitting a request for a one-time extension for the test/replacement frequency for an H.B. Robinson Steam Electric Plant, Unit 2 (RNP) pressure relief valve that falls under Appendix I, I-1350, "Test Frequency, Class 2 and 3 Pressure Relief Valves" of the ASME OM Code, incorporated by reference in 10 CFR 50.55a(a). Relief is being requested on the basis that compliance with the Code requirement will result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The start of the RNP Unit 2 2020 refueling outage (refueling outage 32, RO-32), originally scheduled to begin in September, 2020 was rescheduled and will now begin in November, 2020. Barring approval of this request, the pressure relief valve will exceed its Code mandated 10-year testing frequency prior to the new outage start date, and RNP would require a plant shutdown to complete the necessary testing.

Relief Request RA-19-0428 is provided as an Enclosure to this letter.

This letter contains no new regulatory commitments. Should you have any questions concerning this letter, or require additional information, please contact Art Zarembo, Director – Nuclear Fleet Licensing, at 980-373-2062.

Sincerely,

Ernest J. Kapopoulos, Jr.
Site Vice President

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Enclosure: Relief Request RA-19-0428 for One-Time Pressure Relief Valve Test
Frequency Extension

cc: L. Dudes, USNRC Regional Administrator, Region II
M. Fannon, USNRC Sr. Resident Inspector - HBRSEP
N. Jordan, USNRC NRR Project Manager - HBRSEP

Enclosure 1

**Relief Request RA-19-0428 for One-Time Pressure Relief Valve Test
Frequency Extension**

[4 pages, including cover page]

1.0 DESCRIPTION

This request is for the authorization to use an alternative test/replacement frequency other than the one required by the American Society of Mechanical Engineers (ASME), Code for Operation and Maintenance (OM Code) for Class 2 and Class 3 Pressure Relief Valves.

2.0 ASSESSMENT

ASME Code Components Affected

Pressure Relief Valve	Code Class
CC-722B, Reactor Coolant Pump 'B' Thermal Barrier Outlet Relief Valve	3

Applicable ASME OM Code Edition and Addenda

The H. B. Robinson Steam Electric Plant, Unit 2, Code Edition and Addenda that are applicable to the program interval are ASME OM Code 2004 Edition with 2006 Addenda.

Applicable Code Requirements

Mandatory Appendix I, I-1350, "Test Frequency, Class 2 and 3 Pressure Relief Valves" of the ASME OM Code, which is incorporated by reference in 10 CFR 50.55a(a), states that tests shall be performed on all Class 2 and 3 relief valves every 10 years. In lieu of tests, the Owner may satisfy testing requirements by installing pretested relief valves to replace valves that have been in service, provided the following:

- (1) For replacement of a partial complement of valves, the valves removed from service shall be tested within 3 months of removal from the system or before resumption of electric power generation, whichever is later; or
- (2) For replacement of a full complement of valves, the valves removed from service shall be tested within 12 months of removal from the system.

Reason for Request

The start of the Unit 2 H.B. Robinson Nuclear Plant (RNP) 2020 refueling outage (refueling outage 32, RO-32), originally scheduled to begin on September 15, 2020, was rescheduled and will now begin in November, 2020. The reason for rescheduling the 2020 refueling outage was primarily due to a 23-day forced outage in 2019. As a result, one pressure relief valve, CC-722B, scheduled for testing during the outage will exceed its Code mandated 10-year testing frequency on October 18, 2020.

Pressure relief valve CC-722B, the 'B' Reactor Coolant Pump (RCP) thermal barrier outlet relief valve, is required to maintain the Component Cooling Water (CCW) system pressure integrity by providing overpressure protection. CC-722B relieves excessive pressure from the piping between the 'B' RCP CCW inlet check valve (CC-721B) and the RCP thermal bearing cooling

water outlet isolation valve (CC-735). To perform the removal, testing, repairing if needed, and reinstallation of CC-722B, the valve must be isolated from the CCW System, and the line must be vented and/or drained. Exercising CC-735 during power operation would result in a temporary loss of CCW flow to all three RCP thermal barrier coolers. This action increases the potential for RCP damage and failure of this valve in the closed position will require that the unit be shutdown and RCPs secured. Therefore, to satisfy Mandatory Appendix I, I-1350, for CC-722B, RNP Unit 2 must be in Cold Shutdown (Mode 4) or Refueling (Mode 5).

There are no planned plant shutdowns or outages of sufficient duration prior to the start of the rescheduled 2020 refueling outage to complete the necessary pressure relief valve testing. Requiring a plant shutdown or outage of sufficient duration solely to test CC-722B within its Code-mandated 10-year testing frequency results in an adverse impact on plant operation (unplanned plant shutdown); hardships or unusual difficulty without a compensating increase in the level of quality or safety.

Proposed Alternative and Basis for Use

In lieu of the 10-year testing frequency requirements of the ASME OM Code, I-1350, RNP Unit 2 proposes the testing frequency of CC-722B be extended one time to account for the rescheduled start of RNP's refueling outage. The short duration extension through the end of the refueling outage would allow RNP to avoid implementing an unplanned plant shutdown or outage of sufficient duration solely to test CC-722B within its Code-mandated 10-year testing frequency.

10 CFR 50.55a(z) states the following:

(z) Alternatives to codes and standards requirements. Alternatives to the requirements of paragraphs (b) through (h) of this section or portions thereof may be used when authorized by the Director, Office of Nuclear Reactor Regulation. A proposed alternative must be submitted and authorized prior to implementation. The applicant or licensee must demonstrate that:

(1) Acceptable level of quality and safety. The proposed alternative would provide an acceptable level of quality and safety; or

(2) Hardship without a compensating increase in quality and safety. Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Consistent with 10 CFR 50.55a(z)(2) shown above, this one-time extension request will allow RNP Unit 2 to avoid undue hardship or unusual difficulty. At the conclusion of the rescheduled 2020 refueling outage, and the proposed testing extension, CC-722B will have been replaced with a suitable pretested valve. The testing history for CC-722B has been satisfactory in passing the past two tests since the year 2001. This satisfactory testing history provides reasonable assurance that CC-722B will safely operate during the requested period of extension. The RNP testing history of similar pressure relief valves, CC-722A and CC-722C, have been satisfactory dating back to their last two inspections since the years 2008 and 2004 respectively.

Duration of Proposed Alternative

To provide optimal flexibility in scheduling CC-722B testing, the proposed alternative is requested through the end of the 2020 refueling outage, currently scheduled to start in November, 2020. The ASME OM Code required testing per Mandatory Appendix I, I-1350, for CC-722B will be complete prior to plant startup (RNP Unit 2 Cycle 33).

Precedents

The NRC provided the safety evaluation report listed below to First Energy Nuclear Operating Company (FENOC) on November 19, 2010. The FENOC Relief Request is utilized as precedent due to the fact that it is an ASME Code frequency extension of roughly two months for relief valves to allow the site to avoid a shutdown solely for valve replacement.

- Nuclear Regulatory Commission (NRC) letter to First Energy Nuclear Operating Company (FENOC), November 19, 2010, Subject: Perry Nuclear Power Plant, Unit 1 – Relief Request VR-7, One-Time Replacement Frequency Extension (TAC No. ME4284) (ML103200668)