

From: Hon, Andrew
Sent: Tuesday, February 4, 2020 2:49 PM
To: Zaremba, Arthur H.; Sigmon, Chet Austin
Subject: RAI - Robinson Relief Req re: Rx Vessel Cold Leg Nozzle Dissimilar Meter Butt Weld Inspection Interval EPID L-2019-LLR-0072

By letter dated July 23, 2019 (Agencywide Documents and Access Management System (ADAMS) Accession ML19204A082), Duke Energy Progress (the licensee) requested a relief from certain requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Case N-770-2 as mandated by Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(6)(ii)(F) with conditions. In accordance with 10 CFR 50.55a(z)(1), the licensee requested specifically to delay the volumetric inservice inspection (ISI) required by Code Case N-770-2 of the reactor vessel (RV) cold leg nozzle-to-safe end dissimilar metal (DM) butt welds at the H.B. Robinson Steam Electric Plant, Unit 2 from the unit's refueling outage in 2020 to its refueling outage in 2022.

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing your submittal and has determined that additional information is required to complete the review. The proposed questions were discussed by telephone with your staff on [January 29, 2020](#). Your staff confirmed that the request for additional information (RAI) was understood, it does not contain proprietary information, and agreed to provide a response by March 4, 2020.

Regulatory Bases:

10 CFR 50.55a(z) *Alternatives to codes and standards requirements*, 50.55a(g)(5)(iii) *ISI program update*, and 10 CFR 50.55a(g)(6)(i) *Impractical ISI requirements: Granting of relief*.

The NRC staff is requesting the following specific additional information:

1. When was the latest ISI of the loop "A" and loop "C" RV cold leg nozzle-to-safe end DM butt welds performed in accordance with ASME Code Case N-770-1 as mandated by 10 CFR 50.55a(g)(6)(ii)(F) with conditions? Provide results of examination.
2. In Section 5.0 of request, it states that the two subsurface axial flaws in loop "B" of the RV cold leg nozzle-to-safe end DM butt weld were conservatively combined and reclassified as one subsurface axial flaw in accordance with proximity rules of ASME Code, Section XI, IWA-3300. In Section 6.0 of Attachment 3 to RA-19-0138, the licensee stated that the cumulative usage factor (CUF) for fatigue at the location of loop "B" of the RV cold leg nozzle-to-safe end DM butt weld was determined to be 0.0007. To demonstrate reasonable assurance of the structural integrity for duration up to next proposed volumetric examination from the last inspection in fall 2013, provide:
 - a. The cyclic loadings and transients that have contributed to reach a CUF of 0.0007 at the subject DM butt weld location.
 - b. State whether any operating events have occurred since the most recent inspection which may have resulted in the identified subsurface flaws having become surface-connected.

Thank you

Andy Hon, PE

Project Manager (Brunswick Nuclear Plant 1 & 2, H.B. Robinson, Duke Energy Fleet)

Plant Licensing Branch II-2

Division of Operating Reactor Licensing

Office of Nuclear Reactor Regulation

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