**From:** Thadani, Mohan
**To:** Harding Jr, Thomas; Jackson, Jarred A
**Subject:** Ginna: RAI for the CRDM nozzle Examination relief request (ME8801)
**Date:** Thursday, September 20, 2012 1:04:00 PM

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Tom:

By letter dated May 24, 2012 (ADAMS Accession Number ML12151A405) Constellation Energy (the licensee), proposed an alternative to 10 CFR 50.55a(g)(6)(ii)(D) for R.E. Ginna Nuclear Power Plant (Ginna). Approval of the alternative requires a demonstrated volumetric leak path assessment or surface leak path assessment in accordance with American Society of Mechanical Engineer's Boiler and Pressure Vessel Code Case N-729-1, "Examination Requirements of the Reactor Vessel Replacement Head Penetration Nozzles," with NRC imposed conditions. The licensee is requesting to perform a non-demonstrated volumetric leak path examination of each penetration nozzle and associated weld as discussed in Relief Request ISI-08.

The NRC staff has reviewed and evaluated Relief Request ISI-08 and has determined that the information listed in the following request for additional information is needed in order to complete the review of the relief request ISI-08. Please provide your response in a timely manner to facilitate your requested approval date.

Mohan.

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REQUEST FOR ADDITIONAL INFORMATION
ISI-08, REQUEST FOR RELIEF FROM 10 CFR 50.55a(g)(6)(ii)(D) REQUIREMENTS FOR EXAMINATION OF REACTOR PRESSURE VESSEL UPPER HEAD PENETRATION NOZZLES AND ASSOCIATED J-GROOVE WELDS
CONSTELLATION ENERGY,
R.E. GINNA NUCLEAR POWER PLANT, LLC
DOCKET NO. 50-244

By letter dated May 24, 2012 (ADAMS Accession Number ML12151A405) Constellation Energy (the licensee), proposed an alternative to 10 CFR 50.55a(g)(6)(ii)(D) for R.E. Ginna Nuclear Power Plant (Ginna). This requirement requires a demonstrated volumetric leak path assessment or surface leak path assessment in accordance with American Society of Mechanical Engineer's Boiler and Pressure Vessel Code Case N-729-1, "Examination Requirements of the Reactor Vessel Replacement Head Penetration Nozzles," with NRC imposed conditions. The licensee is requesting to perform a non-demonstrated volumetric leak path examination of each penetration nozzle and associated weld as discussed in Relief Request ISI-08.

The NRC staff has reviewed and evaluated Relief Request ISI-08 and has determined that the following information is needed in order to complete its review of the relief request.

1. In Section 5 of the submittal, the licensee "proposes to perform the bare metal

visual examination of the CRDM nozzle to reactor vessel head bore annulus area in lieu of a demonstrated volumetric or surface leak path by virtue of the weep channel designed into the Ginna replacement Reactor Vessel Head." During the September 6, 2012 teleconference between the licensee and NRC, the licensee clarified that the intent of the upcoming inspection is to perform a best effort volumetric leak path assessment in lieu of a demonstrated volumetric leak path assessment in accordance with 10 CFR 50.55a(g)(6)(ii)(D)(*3*). The NRC requests that the licensee revise Section 5 to document the new proposed alternative.

2. Given the change in the licensee's proposed alternative, the NRC requests additional information be included through-out the submittal to adjust to the change and provide the basis for not being able to perform a demonstrated volumetric leak path assessment or a surface leak path assessment in accordance with 10 CFR 50.55a(g)(6)(ii)(D)(*3*). The NRC notes that the basis should be sufficient to support the method of requesting authorization of the proposed alternative under 10 CFR 50.55a(a)(3)(i) or (a)(3)(ii). As discussed during the September 6, 2012 teleconference, the NRC recognizes the potential hardships of developing a mockup for demonstration purposes in this limited timeframe, and the potential radiological dose concerns of a surface leak path assessment in general. Additionally, recent reports from Task 4 of the EPRI Boric Acid Corrosion program and NRC NUREG/CR-7142, "Ultrasonic Phased Array Assessment of the Interference Fit and Leak Path of the North Anna Unite 2 Control Rod Drive Mechanism Nozzle 63 with Destructive Validation," could provide a basis for an effective volumetric leak path examination at Ginna, given consideration for the size of the weep channel. However, these bases need to be correlated to the Ginna case and documented for review.