

**From:** Peter Tam  
**To:** internet:steven.leonard@nmp.cn.com  
**Date:** 7/14/03 11:39AM

Steve:

Attached please find our contractor's draft RAI on your application for relief dated 3/6/03. Please call me (after 7/27/03) or my backup Richard Guzman (before 7/27/03) to arrange a conference call with our reviewer Tom McLellan and contractor.

This e-mail and the attachment only serve to prepare you and others for the conference call. The e-mail and attachment do not convey an NRC staff position, nor do they formally request for additional information. Disposition of the issues herein will be discussed in the conference call.

Peter S. Tam, Senior Project Manager  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

**CC:**  
internet:john.dosa@nmp.cn.com,TKM.owf2\_po.OWFN\_DO,RVG.owf4\_po.OWFN\_DO

**TECHNICAL LETTER REPORT**  
**REQUEST FOR ADDITIONAL INFORMATION**  
**ON SECOND AND THIRD 10-YEAR INSERVICE INSPECTION INTERVALS**  
**REQUESTS FOR RELIEF**  
**FOR**  
**NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2**  
**DOCKET NUMBERS 50-220 AND 50-410**

**1. SCOPE**

By letter dated March 6, 2003, the licensee, Nine Mile Point Nuclear Station, LLC, submitted Requests for Relief Nos. ISI-21A-1 and ISI-21B-1 to propose alternatives to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, for Nine Mile Point Nuclear Station, Units 1 and 2 (NMP 1-2). The requests for relief are for the second (NMP-2) and third (NMP-1) 10-year inservice inspection (ISI) intervals, in which NMP 1-2 adopted the 1989 Edition of ASME Section XI, with no addenda, as the Code of Record.

In accordance with 10CFR50.55a(a)(3), the licensee has proposed alternative visual VT-1 examinations in lieu of the Code-required volumetric examinations for certain reactor pressure vessel (RPV) nozzle inside radius sections. Proposed alternatives to ASME Section XI requirements may be authorized by the Staff when the applicant

demonstrates that (i) the proposed alternative will provide an acceptable level of quality and safety, or (ii) compliance with the requirements would result in hardship or an unusual difficulty without a compensating increase in the level of quality and safety.

Pacific Northwest National Laboratory (PNNL) reviewed the information submitted by the licensee, and based on this review, determined the following information is required to complete the evaluation.

## 2. REQUEST FOR ADDITIONAL INFORMATION

### 2.1 General Information:

The start and end dates for the second and third 10-year ISI intervals are listed as:

NMP-1 Third Interval 12/26/1999-12/25/2009

NMP-2 Second Interval 04/05/1998-04/04/2008

Confirm these are the accurate start and end dates, and verify, in accordance with 10 CFR 50.55a (1997 and 1998 revision, as applicable), that the 1989 Edition of ASME Section XI is the appropriate version of the Code for NMP Units 1 and 2.

### 2.2 Requests for Relief Nos. ISI-21A-1 and ISI-21B-1, Examination Category B-D, Item B3.100, Reactor Pressure Vessel Nozzle Inside Radius Sections

Below are listed several technical issues associated with the licensee's submittal that must be resolved prior to an evaluation by the staff. Please provide detailed information to clarify these issues.

1) The licensee states that by performing a visual examination in lieu of the Code-required volumetric, "the additional benefit of reducing personnel radiation exposure" will be realized. However, no radiation dose rates or estimated exposures have been quantified in the submittal. Please list the radiation dose rates and personnel exposures that are expected if volumetric examination is required for these nozzle inside radius sections. Describe the difference in these personnel exposures if visual examinations are allowed to be performed in lieu of volumetric methods. Further, specifically list the reduced exposures associated with the direct visual technique on RPV head nozzle inside radius sections, as well as, the savings that are expected by using a remote enhanced visual technique on the RPV shell nozzles inside radii.

2) It is unclear why the licensee is proposing different bases for visual resolution sensitivity for the direct versus remote visual methods. Please clarify the differences in establishing visual sensitivity. Describe these differences in terms of specific implementation parameters, e.g., lighting, calibration standards, magnification capabilities, access to inspection areas, sequence of performance, or other attributes, that will be used for each of these (direct and remote) methods. It should be noted that the staff expects the licensee to implement available state-of-the-art technology for visual

examinations performed in lieu of Code-required volumetric methods for nozzle inside radius sections. Provide sufficient information for concluding that the visual examinations will have the requisite sensitivity to detect inservice degradation.

3) Confirm that all applicable requirements for visual VT-1 examination, as specified in the 1989 Edition of ASME, will be met during the EVT, with the exception of using the 1/2-mil standard versus a neutral gray card with a 1/32-inch black line.

4) Confirm that the surfaces of the nozzle inner radius sections will be clean and free of any conditions that may impair the capabilities of the visual examinations to detect cracking that is open to the surface of the component.

#### Mail Envelope Properties

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