

**NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2 (NMP1 and NMP2)
LICENSE RENEWAL APPLICATION (LRA)
(POST MARCH 7, 2005)
REQUEST FOR ADDITIONAL INFORMATION (RAI) AND FOLLOWUP ITEMS
RELATED TO:**

- (A) LRA Section 2.0 Tables - Scoping and Screening**
- (B) LRA Section 2.3.4.A.5 - T-quenchers**
- (C) LRA Section 3.1 Tables**
- (D) LRA Tables 3.1.2.A-4 and 3.1.2.B-4**
- (E) LRA section 4.7.2 MSIV Corrosion Allowance**

(A) LRA Section 2.0 Tables - Scoping and Screening

RAI 2.2-3

In the Nine Mile Point (NMP) License Renewal Application (LRA), chapter 2 tables identifying the component types requiring an Aging management Review (AMR) for the various systems, the applicant has on several occasions listed “NSR piping, fittings, and equipment” as a component type. This component type is introduced to incorporate the results from 10 CFR 54.4(a)(2) scoping, and is described in the system description sections as “NSR piping fittings and equipment containing liquid” in the buildings that are identified in each LRA section. The System, Structure, and Component (SSC’s) making up this component type thus vary from system to system.

The License Renewal regulation, 10 CFR 54.21(a)(1), requires the applicant to identify and list structures and components subject to an AMR. Standard Review Plan-LR (NUREG-1800) Section 2.3.1 states that for a mechanical system that is within the scope of license renewal, the applicant should identify the portions of the system that perform an intended function. The applicant may identify these particular portions of the system in a marked-up P&ID or other media. Industry Guidance NEI 95-10, Rev. 5, Appendix F, Section 6 states that the results from the application of this methodology (referring to industry 54.4(a)(2) methodology) should be plant specific (commodity lists, component lists, or boundary drawings, etc.), and included in the LRA.

The information provided in the NMP LRA does not satisfy the above regulation since component type “NSR piping, fittings, and equipment” do not identify and list the specific structures and components subject to AMR. Furthermore, while the licensee identifies building in which the piping and equipment are located, it is unclear to the staff as to what portion of the system is subject to AMR.

For the LRA sections that includes “piping fittings, and equipment” as a “component type,” please list the specific SSCs which comprise the “piping fittings, and equipment” component type. Also, clearly identify what portion of the system being included in the scope as result of 10CFR54.4(a)(2) are subject to AMR. For example in LRA section 2.3.3.A.10, it is indicated that “The components subject to AMR include the NSR piping, fittings, and equipment containing liquid in the Reactor Building.” If all the system components located in the building is being included in scope please indicate so in the statement identifying the components subject to AMR (i.e. includes all “piping fittings, and equipment containing liquid in the Reactor Building.) Justification should be provided for all exclusions.

The above stated issues are applicable to the following LRA Sections that the staff had noted during the staff's review of the LRA's BOP section:

2.3.3.A.3	2.3.3.A.10	2.3.3.A.12	2.3.3.A.17	2.3.3.A.19	2.3.3.A.20
2.3.3.A.21	2.3.3.A.22	2.3.3.A.23	2.3.3.A.25	2.3.3.B.8	2.3.3.B.11
2.3.3.B.14	2.3.3.B.16	2.3.3.B.17	2.3.3.B.18	2.3.3.B.21	2.3.3.B.23
2.3.3.B.25	2.3.3.B.26	2.3.3.B.27	2.3.3.B.28	2.3.4.A.1	2.3.4.A.3
2.3.4.A.5	2.3.4.B.1	2.3.4.B.2	2.3.4.B.3	2.3.4.B.4	2.3.4.B.5

However, please note that the above RAI also has a more global implication, in that, the use of "NSR piping, fittings, and equipment" as component type impacts all of the scoping review sections, not only for BOP's SSCs in the LRA, but this component type "NSR piping, fittings, and equipment" is also used in other sections of the NMP LRA; and thus should be addressed accordingly.

(B) LRA Section 2.3.4 T-quenchers:

RAI 2.3.4.A.5

In LRA Section 2.3.4.A.5, NMP1 Main Steam System, the applicant states that the discharge piping and valves from the electromatic relief valves to the torus are also included within this system, but does not specifically state that it ends at the T-quenchers.

Where as for NMP2, in LRA Table 2.3.4.B.4-1, the applicant specifically states that the intended functions of the T-quencher is the pressure boundary.

1. Please provide information to clarify in what component, or commodity group in the Scoping and Screening evaluations of the LRA the T-quenchers were evaluated.

On page 22479 of the statements of consideration,, Federal Register/Volume 60, No 80,/Monday, May 8. 1995 / Rules and Regulations, it expressly implies that a component should be scoped and screened before deciding the appropriate AMP or TLAA.

2. Please provide information to clarify the component, or commodity group in Section 3.1 of the LRA in which the T-quenchers were evaluated.

3. Please provide information to clarify if the following aging effect/mechanism in the T-quenchers were considered:

blow holes due to crud blockage were considered, and
the degradation of the dissimilar welds attaching the T-quenchers to the vent lines, and structural supports were considered.

(C) LRA Section 3.1 Tables

Reference: NMP LRA dated May 26, 2004 (NMP1L 1834), NMP supplement letter dated December 6, 2004 (NMP1L 1892), and supplement letter dated February 4, 2005). The above referenced letters provide NMP responses to the staff's audit questions and requests for additional information (RAIs) regarding the NMP LRA.

The staff has the following followup questions:

RAI 3.1.2-20

In LRA Table 3.1.2.A, the applicant credits NMP AMP B3.2, "Fatigue Monitoring Program", to manage cumulative fatigue damage. Fatigue monitoring program is an acceptable option under 10 CFR 54.21(c)(1)(iii) to evaluate metal fatigue for the reactor coolant pressure boundary, under TLAA. The GALL Report states that if the applicant selects this option, no further evaluation is recommended for license renewal.

However, in LRA Table 3.1.1.A, Item 3.1.1.A-01, the applicant states that in addition to the cumulative fatigue damage, TLAA is further evaluated in Section 4.3. Please clarify the difference between LRA Table 3.1.2.A and LRA Table 3.1.1.A.

Note: This RAI applies to Engineered Safety Features, Auxiliary, and Steam and Power Conversion systems for both Units.

RAI 3.1.2-21

In LRA Table 3.1.2.A-1, the applicant credits NMP AMP B2.1.1, "ASME Section XI ISI (Subsections IWB/IWC/IWD) Program," to manage cracking for feedwater sparger thermal sleeves. The staff noted that the feedwater sparger thermal sleeve, which is a pipe within a pipe and not a pressure boundary component. Therefore, the ASME Section XI ISI can not be used to inspect the thermal sleeve. Please provide an explanation of how the feedwater sparger thermal sleeve is managed by NMP AMP B2.1.1.

RAI 3.1.2-22

In LRA Table 3.1.2.B-1, the applicant credits NMP AMP B2.1.1, "ASME Section XI ISI (Subsections IWB/IWC/IWD) Program," to manage cracking for vessel welds (including attachment welds). Please clarify why the NMP AMP B.2.1.8, "BWR Vessel Internal Program" is not credited for this item, as recommended by the GALL Report.

RAI 3.1.1-20

In Table 3.1.1.B, Item 3.1.1.B-27 of LRA supplement dated December 6, 2004, the applicant credits NMP AMP B2.1.1, "ASME Section XI ISI (Subsections IWB/IWC/IWD) Program," to manage cracking of the feedwater nozzle. The applicant also states that feedwater nozzles employ the improved interference fit (triple-sleeve) sparger design that was generically approved by the NRC, as documented in NUREG-0619. Therefore, the augmented inspections required by GALL AMP XI.M5, "Feedwater Nozzle", are not required.

However, Table 2 of NUREG-0619, Rev 1, recommends the following for the triple-sleeve sparger design: (1) UT every 2 refueling outages, (2) visual inspection every 4 refueling outages, and (3) PT every 9 refueling outage or 135 startup/shutdown cycles. Please address the discrepancy.

RAI 3.1.1-21

In Table 3.1.1.A, Item 3.1.1.A-27 of LRA supplement dated February 11, 2005, the applicant credits NMP AMP B2.1.1, "ASME Section XI ISI (Subsections IWB/IWC/IWD) Program," to

manage cracking for the control rod return drive line nozzle. Please provide information regarding the scope and the techniques of inspections, applied methods, repairs, inspection frequency, and any other relevant information related to the identification of the aging effects for the control rod return line nozzles at NMP1.

RAI B2.1.1-22

As a resolution to Audit Item 100 (Accession No. ML050660377), the applicant indicated that it will credit NMP AMP B2.1.6, "BWR Stress Corrosion Cracking Program," to manage intergranular stress corrosion cracking for stainless steel piping components instead of crediting NMP AMP B2.1.1, "ASME Section XI ISI (Subsections IWB/IWC/IWD) Program." However, in reviewing the applicant's LRA supplements, the staff noted that the applicant has not thoroughly apply this resolution toward all the applicable sections of the LRA. Please review the LRA to ensure that this resolution is applied to all the appropriate sections of the LRA.

RAI 3.2.2-20

In Table 3.2.2.A-1 of the LRA, the applicant credits NMP AMP B2.1.1, "ASME Section XI ISI (Subsections IWB/IWC/IWD) Program" and NMP AMP B2.1.20, "One-Time Inspection Program," to manage loss of material for carbon/low alloy/stainless steel components. Please provide explanation on how these components are managed by NMP AMP B2.1.1. Please also identify the specific section of the ASME Section XI Code that addresses loss of material for internal and external surface of components.

RAI 3.2.2-21

In Table 3.2.2.A-3, of LRA supplement dated February 4, 2005, the applicant does not address inspection activity under ASME Section XI program to manage the aging effect of cracking for the NMP1 Emergency Cooling System Heat Exchangers. This issue has been identified as item 137 of the AMR audit (Accession No. ML050660377). During the audits, the applicant committed to revise LRA to close this issue in its supplement. Please provide a response to Audit item 137 of the AMR audit.

RAI 3.4.1-20

In Table 3.4.1.A, Item 3.4.1.A-7 of LRA supplement dated February 4, 2005, the applicant does not address loss of material due to general, pitting, and crevice corrosion for carbon steel piping and valve bodies. This issue has been identified as item 218 of AMR Audit (Accession No. ML050660377). During the audits, the applicant agreed that the discussion in LRA Item 3.4.1.A-7 is incorrect and committed to revise LRA to close this issue in its supplement. Please provide a response to Audit item 218 of the AMR audit.

RAI 3.5.1-20

In LRA Supplement, dated February 4, 2005, the applicant does not address aging effect of loss of leak tightness for NMP2. This issue has been identified as item 43 of the AMR audit (Accession No. ML050660377). During the audits, the applicant committed to review the NMP 2's hatch design and will revise either the LRA Table 3.5.1.B or 3.5.2.B-1. Please provide a response to Audit item 43 of the AMR audit.

RAI A.1.1.4-20

In Page A1-2 of LRA, the applicant indicates that ASME Section XI (IWB/C/D) program takes exception with the risk-informed requirements of ASME Code Case N-578-1, implemented for examination of welds in Class 1 and 2 piping as approved by the NRC in plant-specific exemptions. The staff noted that ASME Code Case N-578-1 is approved only for the current inspection interval and therefore, Code Case N-578-1 exemption cannot be used for the period of extended operation. Please provide clarification regarding this item for the period of extended operation. This request applies to both NMP1 and NMP2.

(D) LRA Tables 3.1.2.A-4 and 3.1.2.B-4

Reference: NMP letter dated January 3, 2005 (Accession No. ML050110235). This letter provides NMP responses to the staff RAIs regarding LRA Tables 3.1.2.A-4 and 3.1.2.B-4 for NMP1 and NMP2 Reactor Recirculation System NSR piping, fittings, and equipment.

The above responses are under review; however, the staff has the following followup question:

RAI 3.1.2.C.4-1 - Related to LRA Tables 3.1.2.A-4 and 3.1.2.B-4 for NMP1 and NMP2 Reactor Recirculation System NSR piping, fittings, and equipment:

In LRA Tables 3.1.2.A-4 and 3.1.2.B-4 for NMP1 and NMP2 Reactor Recirculation System NSR piping, fittings, and equipment, the use of the term "Any" material does not identify the aging effect and the corresponding aging management program. Please revise the Tables to identify the specific material for the NSR piping, fittings, and equipment at both NMP1 and NMP2, the exposed environment, the aging effect and the applicable AMP to remain consistent with the balance of the components. (This is Followup Item 3.1.2.C.4-1).

(E) LRA section 4.7.2 MSIV Corrosion Allowance

Reference: NMP letter dated January 14, 2005 (Accession No. ML050250188). This letter provides NMP responses to the staff RAIs regarding LRA sections 4.7.2 Main Steam Isolation Valves (MSIV) Corrosion Allowance and LRA section B2.1.1.1, Closed Cycle Cooling Water System (CCCWS).

The above responses are under review; however, the staff has the following followup question:

RAIs 4.7.2-1 and 4.7.2-2 (Followup Items 4.7.2-1 and 4.7.2-2)

By letter dated December 21, 2004 (Accession No. ML043650003), the staff requested the applicant to provide additional details on how the corrosion rate for plant operation was determined. In its response dated, January 14, 2005, the applicant responded that the MSIV bodies are inspected via the Inservice Inspection Program (ISI) in accordance with the ASME Code, Section XI, and that actual measurements are neither required nor taken. In addition, the 0.13 mils/year corrosion rate is based on piping upstream of the MSIVs modeled by the Flow-Accelerated Corrosion (FAC) Program predictive computer model (CHECWORKS). The applicant notes that due to this low corrosion rate, this location would not be identified as a critical area for inspection. Since the largest contributor to the wear rate is based on the FAC predictive model, the staff requests the applicant to provide and discuss any inspection results supporting the assertion that the wear rate of 0.13 mils/year for the MSIV is appropriate considering that the piping, upon which this corrosion rate is based, is not identified as a critical area for inspection.

RAI B2.1.11-2 - (Followup Item B2.1.11-2)

For the preventive actions element, the enhancements to this program include sampling frequencies for Control Room Chilled Water at NMP1 and expanded periodic checks of NMP2 CCCW Systems consistent with the guidelines of EPRI TR-107396. In its response, the applicant indicated that except for the NMP2 Control Building Ventilation Chilled Water (HVK) System, chemistry sampling on the close-cycle portion of systems that may introduce raw water is currently performed either quarterly or more frequently. In addition, the applicant indicates that sampling of the NMP2 HVK system is included in the enhancements identified for this program. Please clarify if the HVK system included in the enhanced program is at NMP1 (as stated in the LRA) or NMP2 (as stated in its response to the staff's RAI)