

**Burkhardt, Janet**

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**From:** Kalyanam, Kaly  
**Sent:** Tuesday, February 15, 2011 5:02 PM  
**To:** BICE, DAVID B; CLARK, ROBERT W  
**Cc:** Lent, Susan; Burkhardt, Janet  
**Subject:** RAI on the LAR for Revision of TS 6.5.16 (ME4090)

I have changed the high-lighted portion to Arkansas Nuclear One, Unit 2. It was Unit 1 before.

Thanks

Kaly

The SUNSI information as follows:

Plant: **Arkansas Nuclear One, Unit 2**  
Docket No.: 50/368  
Subject: RAI on the LAR for Revision of TS 6.5.16  
TAC Nos.: ME4090  
SUNSI Review Done: Yes. Publicly Available, Normal Release, Non-sensitive,  
From: N. Kalyanam  
To: D. Bice/ R. Clark

Mr. Bice,

By letter dated June 17, 2010, Entergy Operations, Inc (Entergy) submitted License Amendment Request on TS Change to extend Type A test frequency to 15 yrs.

The NRC staff has determined that additional information, as detailed below, is needed to complete the review.

We would appreciate a quick response to this RAI in order to meet Entergy need date.

Thanks

Kaly N. Kalyanam

REQUEST FOR ADDITIONAL INFORMATION

LICENSE AMENDMENT REQUEST FOR REVISION OF TS 6.5.16 FOR ADOPTION OF NEI 94-01,  
REVISION 2-A,

AS IMPLEMENTING DOCUMENT FOR 10 CFR 50 APPENDIX J, OPTION B, LEAKAGE TESTING PROGRAM.

ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368 (TAC NO. ME4090)

**RAI-1**

Condition 2 in the Nuclear Regulatory Commission (NRC) safety evaluation report (SER) for topical report (TR) NEI 94-01 Revision 2-A states that "The licensee submits a schedule of containment inspections to be performed prior to and between Type A tests. (Refer to NRC SER Section 3.1.1.3)." In addition, Section 9.2.3.2 of NEI 94-01, Revision 2-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," states that in order to provide continuing supplemental means of identifying potential containment degradation, three general visual examinations of accessible containment surfaces (exterior and interior) must be performed between Type A tests and one visual examination prior to a Type A test, if the interval is extended to 15 years.

The purpose of the condition is for the licensee to provide an approximate schedule of inspections of containment surfaces (concrete and steel) covering a typical 15-year interval between and prior to Type A tests that would demonstrate to the NRC staff the licensee's understanding and proper implementation of the requirement in Section 9.2.3.2 of NEI 94-01, Revision 2-A. Please note that the NRC staff is not looking for repetition of regulatory requirements and code provisions, as was provided in the LAR, but how they are implemented in order to meet the requirement. Please provide an approximate explicit "schedule" of containment inspections, in tabular format, covering a typical 15-year ILRT interval at ANO-2 that would clearly and explicitly demonstrate how the requirement in Section 9.2.3.2 of NEI 94-01 would be met. Please provide this information for (a) concrete and (b) steel liner components of the containment pressure boundary. Since the last Type A test at ANO-2 was conducted in November 2000, the next one would be scheduled to be performed by November 2015 if the ILRT interval is extended. ANO-2 could provide a schedule covering this period as a typical example. An example of such an inspection schedule for steel (only) containment surfaces based on Subsection IWE can be found in Table 1 of the NRC Safety Evaluation report for Nine Mile Point, Unit 2 (ML100730032).

**RAI-2**

The licensee's response to Condition 3 in the LAR, submitted June 17, 2010, relates only to the accessible areas of the containment structure potentially subject to degradation. Please provide information of instances during implementation of the containment ISI program in accordance with IWE/IWL at ANO-2, where existence of or potential for degraded conditions in *inaccessible* areas of the concrete containment structure and metallic liner were identified and evaluated based on conditions found in accessible areas, as required by 10 CFR 50.55a(b)(2)(viii)(E) and 10 CFR 50.55a(b)(2)(ix)(A). If there were any instances of such conditions, discuss the findings and actions taken.

**RAI-3**

Condition 3 in Section 4.1 of the NRC SE for NEI 94-01, Revision 2-A, requires that licensees address the areas of containment structure potentially subject to degradation. Section 3.1.3 of the NRC SE, in part, states that licensees referencing NEI 94-01, Revision 2-A, in support of a request to amend their TS should also explore/consider such inaccessible degradation susceptible areas in plant-specific inspections, using viable, commercially available non-destructive examination (NDE) methods (such as boroscopes, guided wave techniques, etc.- see Report ORNL/NRC/LTR-02/02, "Inspection of Inaccessible Regions of Nuclear Power Plant Containment Metallic Pressure Boundaries," June 2002 (ADAMS Accession No. ML061230425), for recommendations to support plant-specific evaluations). Please refer to NRC SER Section 3.1.3 and

Resolution of NEI Comment 6, for a complete discussion of areas potentially subject to degradation and background for Condition 3.

The staff's intent of this statement in the SER is that licensees should explore and consider NDE techniques such as those discussed in the reference or other methods for inspections of inaccessible degradation-susceptible areas of the containment pressure boundary to support plant-specific evaluations of inaccessible areas, as these advanced technologies become commercially available and viable for implementation in practice in the future. While the staff understands that these techniques may not be commercially viable at the present time, the licensee is requested to identify areas in the ANO-2 containment that are inaccessible and degradation-susceptible, and acknowledge that these NDE technologies would be explored and considered in the future for the examination of inaccessible degradation-susceptible areas of the containment, as these technologies become commercially viable.