



NUCLEAR ENERGY INSTITUTE

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Chief, Rules and Directives Branch  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Room T-6D59  
Washington, DC 20555-0001

**SUBJECT:** NEI Comments on Proposed ISG LR-ISG-2006-01, Plant-Specific Aging Management Program for Inaccessible Areas of Boiling Water Reactor Mark I Steel Containment Drywell Shell

**PROJECT:** 689

The Nuclear Energy Institute (NEI)<sup>1</sup> submits the following comments on proposed ISG LR-ISG-2006-01, in response to the May 9, 2006, Federal Register notice issued by the U.S. Nuclear Regulatory Commission (NRC). We appreciate the opportunity to comment as well as the Commission's consideration of NEI's views on this ISG. As identified in the attached comments, NEI ask the NRC to make several clarifications to the proposed ISG in order to eliminate any confusion with its potential implementation. If further information is needed on our comments, please contact James Ross at 202 739-8101; [jr@nei.org](mailto:jr@nei.org).

Sincerely,

A handwritten signature in cursive script that reads 'Alex Marion'.

Alex Marion

Enclosure

c: Frank Gillespie, U.S. Nuclear Regulatory Commission  
P.T. Kuo, U.S. Nuclear Regulatory Commission

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<sup>1</sup> NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

D046

**NEI Comments on the NRC's Proposed License Renewal  
ISG LR-ISG-2006-01: Plant-Specific Aging Management Program for  
Inaccessible Areas of Boiling Water Reactor  
Mark I Steel Containment Drywell Shell**

**June 8, 2006**

- 1a. The first paragraph under Proposed Action appears to assume that a License Renewal Applicant (LRA) is required to have an Aging Management Program (AMP) prior to conducting an Aging Management Review (AMR). NEI believes that a review should be conducted first prior to developing any Aging Management Program.

NEI recommends moving this paragraph to the end of the Proposed Action section.

- 1b. It is unclear what is meant by plant-specific AMP in the first paragraph under Proposed Action. Is this a general use of the term plant specific or does an applicant need to develop a new AMP specific to Mark I containment corrosion or can an applicant take credit for existing activities ?

NEI recommends re-writing this paragraph to delete the words plant-specific. Our suggested re-write is the following:

In addressing Line Item II.B1.1-2 of NUREG-1801, Volume 2, Revision 1, applicants for license renewal for plants with a Mark I steel containment should address the potential loss of material due to corrosion in the inaccessible areas of the Mark I steel containment drywell shell for the period of extended operation.

- 2a. NEI believes the second paragraph under Proposed Actions should include the words "actions based upon plant design and operating experience" after the word "following".
- 2b. Please clarify the intent of the words "should consider" in the second paragraph under Proposed Actions. Does "should consider" mean actions one (1) through six (6) are optional or does the applicant have to perform all six (6)?

NEI recommends re-writing this paragraph. Our suggested re-write is the following:

In conducting the aging management review of the drywell shell, the applicant should consider one or more of the following actions based upon plant design and operating experience.

3. For ISG Proposed Action #3, it appears the NRC is recommending that if degradation is identified on the accessible areas of the drywell shell (interior surface), then an evaluation be conducted for the inaccessible areas (exterior surface). The accessible and inaccessible areas are exposed to different environments. Operating experience to date is that degradation of the inner and outer surfaces of Mark 1 containments are unrelated. Therefore, Proposed Action #3 does not appear to be applicable.

NEI recommends deleting proposed action #3.

4. Mark I designs are very different and not all designs have alarms to monitor leakage; nor do all designs have the metal seals to exclude water accumulation in the sand pocket area. Also, some Mark I plants have an air gap of several inches on the outside of the drywell so that any water leakage that bypasses the leakage collection system will flow downward to drains above the sand pocket, not resulting in a situation causing corrosion. Because of these design differences, we believe that statement (1) and (2) in proposed action #4 is too specific.

NEI recommends that proposed action #4 be re-written to allow applicants that identify moisture on the outside of its drywell liner to develop a specific action plan based upon plant specific design.

5. Again as in comment above for Proposed Action #5, NEI believes that because of the Mark I design differences; parts of this action may not be relevant to the specific applicants' containment.

NEI recommends specifying that if moisture is detected, then the applicant develop a specific action plan in accordance with their Corrective Action Program. The statements in Proposed Action #5 should be considered examples only to be followed as applicable and denoting that there are other methods that can be used as part of any action plan for alleviating moisture detected on the exterior of the drywell shell. For instance, paragraph (5)(a) presupposes that the source of the leakage can be identified. It may be very difficult to determine the source of the leakage, and aging management of the components that could be the source of the leakage may not be practical. Therefore, applicants may opt to manage the aging of the drywell rather than managing the aging of the source of leakage.

Also, the term "suspected", used in the first paragraph of Proposed Action #5, is very open ended. It could be interpreted as meaning that any detected leakage could result in moisture on the outside of the drywell. In light of recent questions by ACRS on presence of humidity in the air gap, this could be interpreted such that this condition is always met; thus an aging management review and aging management program are always required.

NEI recommends deleting or clarifying the word "suspected" in the first paragraph of proposed action #5.

6. For ISG Proposed Action #6, the words "minimum required thickness" can be interpreted in different ways. What is the minimum required thickness? Is it the individual plant's acceptance criteria? We believe this sentence is better understood without these words.

NEI recommends deleting "(i.e., wall thickness is less than the minimum required thickness)" from proposed action #6.

7. General Comment: Will this ISG apply to those applicants that are in the later stages (within 6 months of projected renewed license) of the license renewal review process? Please specify who this ISG specifically applies to.
8. General Comment: For ISG proposed action #2, the NRC appears to believe that plants performed UT thickness measurements of the drywell in response to GL 87-05. However, most plants did not perform UT thickness measurements, and provided this basis to the NRC in their response to GL 87-05.
9. General Comment: Since this ISG is focused on the exterior, inaccessible surface of the Mark I steel containment drywell shell; include the words "exterior surface" in the appropriate spots for clarification.