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Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

OFFICE OF SECRETARY
DOCKETING

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April 15, 1994

Mr. Samuel J. Chilk
Secretary of the Commission
ATTN: Docketing and Service Branch
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Chilk:

NUCLEAR REGULATORY COMMISSION (NRC) - REQUEST FOR COMMENT ON
PROPOSED RULEMAKING CODES AND STANDARDS FOR NUCLEAR POWER PLANTS,
SUBSECTION IWE AND SUBSECTION IWL

The Tennessee Valley Authority (TVA) has reviewed the subject
proposed rulemaking, which was noticed in the Federal Register
(59 FR 979-984), and is pleased to provide the following comments
for your consideration.

SPECIFIC COMMENTS

- Proposed revision b(2)(vi) adopts the 1992 Edition 1992 Addenda of ASME Section XI for Subsections IWE and IWL. This does not address how other subsections of the Code should be utilized. Utilities' ISI Programs will be based on the 1989 Edition or earlier editions/addenda. Use of editions/addenda prior to the 1992 Addenda should be addressed for subsections such as IWA and IWF. A similar example is addressed in g(A)(2) for the augmented reactor vessel examination.
- SUPPLEMENTAL INFORMATION: Background states that the 1992 Addenda is the earliest Code version which is acceptable. The proposed revision to b(2)(vi) specifies the 1992 Addenda as the only acceptable Code.

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- Proposed revision g(6)(ii)(B) states that, ". . . plants shall implement the examinations . . . by (a date will be inserted that is five years later than the effective date of the final rule)." This implies that the examinations must be implemented or commenced five years after the effective date of the final rule.

The Summary states, ". . . complete the expedited examination . . . within five years of the effective date of this rule." This states that the intent of the rule is to complete the examinations within five years after the effective date of the final rule.

SUPPLEMENTARY INFORMATION: Background states ". . . that licensees conduct the first containment examinations . . . within five years of the effective date of the final rule." It is not clear if the first containment examination refers to the first examinations such as those conducted to meet first period percentages (IWE) or examinations conducted to complete the first inspection interval.

Additional clarification is needed to convey the intent of the expedited examination of the proposed rule.

- If the intent of proposed revision is to complete the expedited examination within five years of the effective date of this rule, a burden is placed on the licensee. The following items identify the basis for this position.
 - Resources must be allocated for: (1) development of corporate and site standards, (2) development of the IWE/IWL ISI plan, (3) preparation of NDE procedures, and (4) performance of examinations. This may require hiring additional employees, contracting personnel, or a combination thereof.
 - Areas requiring examination must be determined and located. This may require physically locating the areas during a refueling outage, which would detract from the time available to perform the examinations.
 - In instances where compliance with the Code is known to be impractical, requests for relief must be prepared. The extent of this task is dependent on the application and interpretation of paragraphs IWE-1220 and IWE-1230.

- Coordination and interfaces with personnel normally not associated or familiar with ISI activities must be initiated (i.e., Appendix J engineers and concrete engineers).
- Personnel must be trained, qualified, and certified to perform the examinations required by IWE/IWL.
- Examinations must be performed during refueling outages which have not incorporated scheduling activities or "windows" for performance of these examinations. Schedules would require development based on all of the preceding activities.
- Repair and replacement procedures which meet the requirements of ASME Section XI must be developed.
- A proposed implementation schedule for expedited and deferred examinations could be developed as follows.
 - Licensees which are in the first period of an inspection interval on the effective date of this rule (current inspection interval) shall complete the examinations required by IWE/IWL by the end of the first period of the subsequent inspection interval. Initial examinations must commence no later than the third period of the current inspection interval. All examinations shall be credited for the current inspection interval. None of these examinations may be credited for the subsequent inspection interval. The 1992 Addenda of ASME Section XI shall be used.
 - Licensees which are in the third period of the current inspection interval may defer performance of initial examinations until the second period of the subsequent inspection interval. All examinations required by IWE/IWL must be completed by the end of the subsequent inspection interval. The 1992 Addenda of ASME Section XI shall be used.

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- Licensees which are in the second period of the current inspection interval may follow the examination schedule of IWE/IWL for the subsequent inspection interval. Examinations are not required for the current inspection interval. The edition and addenda of ASME Section XI to be used shall be in accordance with g(4)(ii).
- Proposed revision b(2)(x) addresses deferral of IWE/IWL inservice inspection plans. Normally, inservice inspection plans are developed, and examinations are performed to implement the inservice inspection plans. It is not clear if the intent of the proposed revision is to permit deferral of performance of the examinations by an equivalent period or to permit performance of examinations without a completed IWE/IWL inservice inspection plan in place.
- Proposed revision g(4)(v) includes repair and replacement requirements for ASME Code Class CC and MC components and their integral attachments. Existing Paragraphs g(1), g(2), g(3), and g(4) do not reference repair and replacement requirements for ASME Code Class 1, 2, and 3 components (including supports). This implies that the ASME Section XI Code repair and replacement requirements do not apply to ASME Code Class 1, 2, and 3 components.
- It appears that the reference to ASME Code Class CC in proposed revision g(4)(v)(B) should be ASME Code Class MC.
- Proposed revision g(6)(ii)(B)(2) refers to ". . . the first containment inspection interval." It is not clear if this refers to the first inspection interval of ASME Section XI Table IWE-2500-1. It is also not clear how the provisions of g(6)(ii)(B)(2) would apply if the expedited examinations were completed during two inspection intervals.
- Throughout SUPPLEMENTARY INFORMATION, compliance and noncompliance with General Design Criteria (GDC) is referenced. Does this imply noncompliance with GDC each time a safety-related component fails or undergoes some type of degradation?

- SUPPLEMENTARY INFORMATION: Background states, ". . . the Subsection IWE and Subsection IWL portions of the ISI plan will not have to be submitted to the NRC for approval." This provision does not appear to be included as a part of the proposed revisions to 50.55a. Since ASME Section XI has requirements for filing of plans with regulatory authorities, the proposed revision should include this provision to ensure utility compliance with 50.55a.

It is not clear if this provision applies only to plants that when the rule becomes effective will be within two years of the end of a 120-month interval. It is not clear how this provision applies to proposed alternatives (50.55a(a)(3)) or requests for relief (50.55a(g)(6)(i)) which are normally a part of the ISI plan.

CODE CHANGES

- The requirements of IWE-2500(c)(2), (3), and (4) for examination of surface areas for wall thinning using an ultrasonic thickness measurement appear to be excessive. A sampling program for accessible areas would be more practicable than a 100 percent examination.
- There are several areas of the 1992 Addenda for Subsections IWE/IWL which should be clarified or revised prior to adoption. These are listed below.
 - Paragraphs IWE-1220(b) and IWE-1232 appear to conflict as far as which components may be exempted.
 - It is not clear if it is the intent of Paragraph IWE-2200(a) to do a 100 percent preservice examination.
 - Paragraphs IWE-2420(b) and (c) appear to conflict in that (b) references the next inspection period and (c) references three consecutive inspection periods.
 - It is not clear if it is the intent of the Code to limit the provisions of Paragraphs IWE-2420(b) and (c) to examination Category E-C.
 - It is not clear if it is the intent of Table IWL-2521-1, Note 2, to never permit a reduced sample size if acceptance criteria of IWL-3221.1 was not met during a previous inspection.

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- Paragraphs IWE-5220 and IWL-5230 appear to conflict concerning leakage tests required for containment metallic liners.
- The occurrences of containment structural degradation at nuclear power plants do not indicate problem areas with pressure retaining welds. Locating these welds, developing drawings and ISI plans, developing NDE procedures, and performing examinations are major tasks with no apparent benefits.

Consideration should be given to excluding examination categories E-B and E-F from the proposed revision to 50.55a.

- Performance of the IWE/IWL examinations will result in additional personnel radiation exposure and additional generation of radwaste. The proposed revision should consider this impact on the nuclear industry especially in the areas of surface area ultrasonic thickness measurement, examination of pressure retaining welds, and the VT-3 visual examination requirements of the later ASME Section XI Codes (Paragraph IWA-2210 Visual Examinations; 1989 Edition 1990 Addenda and later).
- Containment design limits accessibility for personnel. Performance of these containment examinations will require the presence of additional personnel within containment. This may require extension of refueling outages due to limitations on the number of personnel and type of work activities permitted in containment.

GENERAL COMMENTS

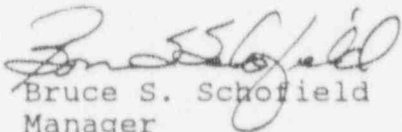
- Are Appendix J revisions planned which will coincide with the proposed revisions to 50.55a?

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- It is TVA's understanding that NRC is in process of adopting the 1992 Edition 1993 Addenda of ASME Section XI. How will this address IWE/IWL for plants requiring ISI plan update in the near future if expedited examinations will be performed in accordance with the 1992 Addenda? How will this facilitate maintenance of one ISI plan?

TVA appreciates this opportunity to comment.

Sincerely,



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