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Energy Operations, Inc.
1500 J Street
Washington, DC 20005-1104
Tel: (202) 854-9700

Jerrold G. Dewease

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April 25, 1994

Mr. Samuel J. Chilk
Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTN: Docketing and Service Branch

Subject: Entergy Operations, Inc. Comments on Proposed Rule on Code & Standards:
Subsections IWE & IWL

Reference: Federal Register Volume 59, Page 979, dated January 7, 1994

CNRO-94/00011

Dear Sir:

The referenced Federal Register listing invited comments on the Proposed Rule on Code & Standards: Subsections IWE & IWL. Entergy Operations, Inc., the licensee for Arkansas Nuclear One, Units 1 and 2, Grand Gulf Nuclear Station, River Bend Station, and Waterford 3 Steam Electric Station has reviewed the proposed rule change and offers the following comments for your consideration.

Entergy Operations is deeply concerned about the ramifications of implementing the proposed rule. This effort is in complete conflict with other current NRC efforts to improve 10CFR50.55a by making it more performance based and reducing the prescriptive approach. Based on industry experience and the information provided in SECY 93-328, the rule is not necessary. It is highly prescriptive and presents a significant and serious burden both in cost and person-rem exposure. The impact would be even further exacerbated by the proposed expedited examination schedule. The rule does not consider the impact on different containment types and appears to use unique isolated events as the basis for concluding an industrywide concern. Further, if implemented it would invoke testing and examination requirements far beyond those issues purported to be the basis for this rulemaking (e.g. bolting, coatings, gaskets, etc.) The compliance exception to the backfit rule has been taken inappropriately and a backfit analysis should be performed before any further requirements are mandated. Finally, subsections IWE and IWL were originally created over a decade ago and contain numerous technical, editorial, and typographical errors.

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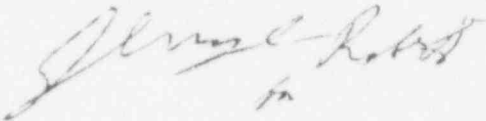
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In addition to our specific comments noted herein, Entergy Operations, Inc. provided input to and concurs with the comments submitted by the Nuclear Energy Institute (NEI) and Nuclear Utility Backfitting & Reform Group (NUBARG) in regard to this request for comments.

We appreciate the opportunity to provide our comments on the proposed rule and welcome any attempts for the industry and NRC to work together for issuance of guidance, as appropriate, that can resolve NRC concerns without being unduly burdensome.

Our detailed comments are included as Attachment 1 to this letter.

Sincerely,



JGD/jkw
attachment

cc:

Mr. T. W. Alexion	Mr. N. S. Reynolds
Mr. R. H. Bernhard	Mr. R. G. Schaaf
Mr. R. P. Barkhurst	Ms. L. J. Smith
Mr. R. B. Bevan, Jr.	Mr. W. F. Smith
Mr. L. J. Callan	Mr. H. L. Thomas
Mr. J. F. Colvin	Mr. F. W. Titus
Mr. S. D. Ebnetter	Mr. D. L. Wigginton
Mr. E. J. Ford	Mr. J. W. Yelverton
Mr. C. R. Hutchinson	Corporate File []
Mr. J. R. McGaha	DCC (ANO)
Mr. R. B. McGehee	Records Center (W-3)
Mr. P. W. O'Connor	Central File (GGNS)

**ENERGY OPERATIONS COMMENTS ON
PROPOSED RULE ON CODE & STANDARDS: SUBSECTIONS IWE & IWL**

General

The current provisions for containment testing and examination are contained in General Design Criteria 16 and 53, and in 10CFR50, Appendix J. The basis for the proposed rulemaking is that the existing regulations do not provide specific guidance on how to conduct these tests and examinations. The proposed rulemaking would require licensees to expedite implementation of ASME Code Section XI, Subsections IWE and IWL and complete the expedited examinations within five years of the effective date of the rule. The proposed rulemaking applies the compliance exception to the backfit rule as the basis for not performing a backfit analysis.

Discussion

The stated purpose is to ensure that containments continue to maintain or exceed minimum accepted design wall thicknesses and prestressing forces as provided for in industry standards. Current regulatory requirement for containment integrity and examinations are already provided in GDC 16 and 53, and 10CFR50, Appendix J. While it could possibly be questioned as to the need for guidance how to perform examinations, new regulatory requirements for compliance are not necessary or appropriate.

The SECY states "that this action is an important step, not unlike the maintenance rule." Entergy Operations contends that this action is completely opposite of the maintenance rule since it is highly prescriptive, not performance based, and codifies a single specific approach to comply with existing regulations. The basis for this rule and its highly prescriptive approach (i.e., "Appendix J...does not provide specific guidance") is in total conflict with the finding of the NRC Regulatory Review Group Report (August 1993) which concluded that 10CFR50.55a was "prescriptive" and could be made more performance based. In fact, in SECY 94-036, the NRC staff identified Appendix J exemption requests as "consum[ing] considerable staff and licensee resources." The SECY discusses NRC planned changes to make Appendix J less prescriptive and more performance based to be consistent with the NRC's program to eliminate requirements that are marginal to safety. The proposed rule would exacerbate this problem of exemption requests even more since the requirements are extremely prescriptive, duplicative to or in conflict with Appendix J, and do not adequately consider the different containment types (21 types, according to Figures 1 & 2 of SECY 93-328). Therefore, the proposed rule is in complete conflict with current NRC plans to improve Appendix J and reduce NRC and licensee burden for requirements marginal to safety.

Containment Integrity/Degradation

Containment degradation has been an issue for more than 15 years. Most areas of concern were discovered as a result of the required general inspections of Appendix J or through inspections of NRC Regulatory Guide 1.35. ASME Section XI developed new prescriptive examination and testing requirements at the direction of the NRC in the late 1970's. A new subsection, IWE, was added to the Code in the 1981 Addenda, 1980 Edition. The NRC never required licensees to adopt these new requirements nor recommended their use as proposed guidance until now, some 13 years later. It is not clear why the NRC now appears to consider current inspection programs are no longer adequate.

In accordance with GDC 16, containments were designed and constructed with allowances for corrosion or degradation over the life of the plant. Consequently, licensees are required by current regulations to conduct a host of surveillances and tests including visual examinations, integrated leak rate testing, visual surveillance tests of drainwells, as well as augmented visual and ultrasonic examinations where degradation has been identified. As such it is no surprise that "Over one-third of the operating containments have experienced corrosion or other degradations" as the proposed rule notes. The real issues are: 1) has the corrosion or degradation been excessive enough to constitute a significant industrywide safety concern, and 2) are current regulatory and industry actions and programs effective in identifying and addressing degradation.

Figures 1 and 2 of SECY 93-328 illustrate the complexity of containment types well. In Figure 1, BWRs are divided into three basic types which are further divided into eight subtypes. It should be noted that all of the degradations from Table 3 for BWRs occurred in Mark 1 containments and this is only eleven cases of thirty seven units. This is hardly indicative of a generic problem for all BWR plants.

For the BWRs, the two instances involving the most significant corrosion (sandbed drainage and use of an uncoated torus) were determined to involve unique scenarios. A review of Table 3 of SECY 93-328 indicates that the NRC identified problems before licensees in four instances out of the twenty-seven cases cited. In fact, Table 3 indicates the majority of the cases cited identifying actions as "Technical Specification surveillance," "during Type A test," "Pre-integrated leak rate test inspection," "Pre-ILRT visual inspection," etc.

In Figure 2 for PWRs, there are three basic types, two of which are divided into two subtypes (17 units). Large, dry primary containments (60 units) are divided into four subtypes which are further divided into nine variations. Again, reviewing the data in Table 3 does not indicate a generic industrywide concern for PWRs.

Through the use of other regulatory documents, IEN's, GL's, etc. the NRC has kept licensee's informed of potential problems and areas of concern. As a result, licensees have initiated aggressive inspection programs to detect containment degradation with a high level of success as evidenced by the minimal number of findings over the last twenty years. The specific use and adoption of the Code into the regulations places undo burden without a compensating increase in safety for the licensee, nor with derived cost benefit.

The SECY states, "[t]his does not mean, however, that licensees who have not yet adopted the provisions of Subsection IWE and subsection IWL for ISI are in non-compliance now or until they do implement these provisions." Entergy Operations agrees. We are not aware of a single incident where NRC enforcement actions was taken against a licensee. In fact, no single instance has been identified where structural deterioration has affected the containment's integrity or leak-tightness such that the containment would not provide an essentially leak-tight barrier against the uncontrolled release of radioactivity into the environment in the event of an accident. Therefore, it should be concluded that this is not an industrywide safety concern and current NRC and licensees activities and programs have been effective in identifying degradation and taking appropriate action.

Backfitting Considerations

The Backfit statement supporting the proposed rulemaking maintains that a backfit analysis is not needed based on 10CFR50.109(a)(4)(i). However, 10CFR50.109(a)(7) states that "If there are two or more ways to achieve compliance with a license or the rules or orders of the Commission, or into conformance with written commitments by the licensee, or there are two or more ways to reach a level of protection which is adequate, then ordinarily the applicant or licensee is free to choose the way best suit its purposes. However, should it be necessary or appropriate for the Commission to prescribe a specific way to comply with the requirements or achieve adequate protection, then cost may be a factor in selecting the way, provided that the objective or compliance or adequate protection is met." Further, the Statement of considerations explains: "It should be noted that new or modified interpretations of what constitutes compliance (emphasis added) would not fall within the exception and would require a backfit analysis and application of the [cost-benefit] standard."

The Statement of considerations accompanying the proposed rule notes that it would impose "more detailed requirements for enhanced ISI examinations . . . to supplement existing regulations" (emphasis added). As a minimum, the proposed rule reflects a redefinition of how to demonstrate compliance with existing standards, that is, a new interpretation of existing rules which constitutes a backfit under the definition in Section 50.109(a)(1).

The compliance exception would be appropriate for cases where licensees are not maintaining compliance with an explicit regulator requirement or when there is an industrywide safety concern. As pointed out above, SECY 93-328 states "[t]his does not mean, however, that licensees who have not yet adopted the provisions of Subsection IWE and subsection IWL for ISI are in non-compliance now or until they do implement these provisions." The Statement of considerations does not cite any instances where relevant NRC enforcement action was taken against licensees and a careful review of Table 3 in SECY 93-328 reaffirms that there is no widespread failure of licensees to comply with the current rules governing containment design, testing, or inspections. With respect to taking a backfit exception based on an industrywide safety concern, the evidence does not support this conclusion. The two examples cited where there was significant degradation have been clearly shown to be site specific and not representative of a widespread industry concern. It is not a surprise that "Over one-third of the operating containments have experienced corrosion or other degradation." The fact that degradation will occur is the basis for existing regulatory requirements and industry programs to effectively ensure containments continue to maintain an adequate leak-tight barrier to radioactive releases for postulated accident scenarios. The proposed rulemaking does not offer objective evidence as to why these programs which have been judged acceptable for some twenty years are no longer adequate and thus necessitating highly prescriptive codified requirements that go even beyond the stated basis for an NRC concern.

Regulatory Burden

Enclosure 6 of SECY 93-328 provides an analysis that purports a substantial increase in safety and justified direct and indirect implementation costs. However, Entergy Operations believes this analysis is seriously flawed.

The analysis does not address, either qualitatively or quantitatively, the extent that the proposed rule would lower containment failure probabilities or result in person-rem savings. Further, the NRC analysis does not appear to consider the significance of accelerating the examination schedule or its impact on refueling outage cost and duration.

The proposed expedited examination schedule places an unnecessary burden on those plants that are planning to operate on 24 month cycles. The major portion of examinations must be performed from within containment and can only be performed during a refueling outage. This would very likely impact overall outage duration as well as significantly increasing person-rem exposure. Since plants must develop inspection plans consistent with the Code, containment walkdowns and administrative processes and procedures including drawings must be developed to ensure accurate program plan development and compliance. Based on the Staff's proposed estimate, program plan development will require two man-years. If this was the case, the licensee may only have one refueling outage to complete a 10 year examination plan for meeting IWE

requirements and a five year inspection plan for IWL requirements. This places an undue hardship and burden upon the licensee requiring an extended outage of significant duration without a commensurate increase in safety above those programs currently in place.

Performing general visual examinations and pressure testing as required by Appendix J should suffice for using the requirements of IWE to detect containment degradation. This methodology is currently being used by licensee's to comply with the requirements for providing adequate protection and assuring containment integrity and has worked well. By the adoption of IWE, several other areas of examination are required including paint inspections, gasket and seal inspections, and bolt torque testing. In addition to going beyond the NRC's stated basis for this rulemaking, this appears to go beyond the original scope of ASME Section XI, as the ASME's function was to provide rules for the design, fabrication, and inspection of pressure vessels and assure their integrity and to afford reasonable protection to the public. The aforementioned areas are not addressed in other sections of the Code, nor do they impact containment shell degradation.

Entergy Operations therefore believes the NRC cost estimate at over one million dollars per plant in the first ten year interval is extremely low and the safety benefits are very questionable. Based on these uncertainties, in addition to the considerations above, a comprehensive backfit analysis should be performed. The backfit should include consideration of the impact in person-rem's to implement, increased outage duration, anticipated reduction in containment failure probabilities and their resulting impact on overall core damage frequencies.

Recommendation

If the NRC is determined to move forward on this issue, it is recommended that the Staff take into consideration the BWROG Model Containment Inspection Plan versus the prescriptive requirements of IWE and IWL for BWRs as a minimum. This approach is supported by the Regulatory Review Group's charter to conduct a review of power reactor regulations and related processes and programs, with specific attention being given to the use of performance based rather than prescriptive requirements and guidance as those specified in 10CFR50.55a. This approach would be more appropriate in a guidance document rather than codifying by regulation.

In general, Generic Letters and Regulatory Guides are a less burdensome process for the licensee than prescriptive regulations, particularly when communicating technical details. The proposed rule is an excellent example where multiple pages of technical details contained in IWE/IWL could become regulation. As will be discussed in the next section, the proposed IWE/IWL contain numerous errors and/or problems. The Generic Letter and Regulatory Guide processes allows a licensee to propose alternatives and to make changes in accordance with 10CFR50.59. By incorporating IWE/IWL into 10CFR50.55a, specific NRC approval for each separate licensee

will be required to correct each and every error/problem through the relief request process. Resolving the errors/problems through ASME will not likely be a viable option due to the desired NRC schedule of implementation.

The ASME Code review and approval process is not equivalent to the solicitation of public comment on a proposed rulemaking. Code committees comprised of utility, vendor, and regulatory representatives develop requirements for inclusion in the Code. The approval process includes publishing new items and revisions in the ASME Mechanical Engineering and ANSI Reporter publications. The publication of these non-mandatory items for public comment in trade publications should not be construed as being equivalent to opportunity for public comment on proposed federal regulations published in the Federal Register. If the NRC is determined to move forward on this issue, the notice of proposed rulemaking should be republished including the text of IWE and IWL to provide the public sufficient opportunity to review and comment on each proposed new requirement. The comment period should also be extended accordingly.

If the proposed regulation are adopted, the Commission should publish guidance on how licensees should modify their Technical Specifications on containment integrity (tendon surveillances) to correspond with the new regulations as well as revising Appendix J for containment examinations to avoid redundancy or conflicting guidance.

Technical Issues For IWE & IWL

Entergy has performed a consensus review with input provided by the five operating units to formulate a number of questions regarding IWE and IWL. From this review, it was determined that in it's present form the subsections of Section XI 1992 Edition with Addenda through 1992 have a significant number of technical and editorial changes that need to be made. Because of the nature and number of concerns, it was evident to Entergy that the Code has several problems. If adopted under the proposed rulemaking, in its current form, a significant hardship for ASME as well as licensees will be imposed. During the last meeting of Section XI, held in Phoenix, Arizona, Entergy presented these concerns and comments to the Containment Subgroup. Most of the items were adopted and recommended for action to be addressed at future meetings. Some examples are discussed below.

Paragraph IWE-1210

This paragraph implies that the exemptions granted in paragraph IWE-1220 are only applicable to those containments designed and built to Class MC or CC rules. What exemption criteria may be applied for those containments not designed or built to Class MC or CC rules?

Paragraph IWE-2200(g)

Does this paragraph imply that a VT be performed after each application of paint? How is the condition of new paint or coatings "documented in the pre-service inspection records"? Is a new pre-service examination required if only painting is performed?

Paragraph IWE-2420(c)

IWE-2420(b) states that flaw areas detected shall be re-examined during the next inspection period. IWE-2420(c) states that if a flaw remains unchanged for three periods the area no longer requires augmented examinations. These paragraphs appear to conflict. Table E-C, footnote 2, also states three periods. It is recommended to make these requirements consistent with the successive examinations required for Class 2 components.

Paragraph IWE-2430(a)

This paragraph states that additional examinations shall be performed if the acceptance standards of Table IWE-3510-1 are exceeded. Whether the item is determined acceptable for continued operation or requires corrective measures appears to be irrelevant. This position is inconsistent with Subsections IWB and IWC -3000. Also, the acceptance standards provided in IWE-3000 appear to be observed conditions and are not acceptable criteria for establishing the condition of the component.

Paragraph IWE-2430

It is recommended that the term "inspection" be clarified. In its current form, the wording is unclear as to what the requirement is. Also, IWE-2430(b) states that when additional areas of degradation are identified, the remaining number of examinations for the interval shall be performed. This requirement is unclear (i.e., does this mean only the item no. or the entire examination Code Category?). This is a more stringent requirement than contained in Subsections IWB, IWC and IWD.

Paragraph IWE-2500(b)

Does the specific reason for paint removal affect the requirement for examination prior to removal? If paint is removed due to some other reason other than degradation, would this apply? If an Owner wanted to change colors, a VT should not be required. This requirement is excessive for non-degraded surfaces. Also, are the current authorized Nuclear Inservice Inspector and Supervisor qualifications sufficient under ANSI N-626 for him to properly witness

or verify the requirements for paint and coatings? How will he be able to determine acceptable equivalent methods under IWA-2240?

Paragraph IWE-2500(c)(1)

This paragraph requires that a VT-1 examination be performed from both sides of the component. What is the basis for examining both sides for wear due to high traffic? It would seem that an ultrasonic examination from the wear side would suffice and provide more detailed information. Accessibility should be considered.

Paragraph IWE-2500(c)(4)

This paragraph implies that a 100% ultrasonic scan be performed within a grid. When considering the criteria specified in IWE-1242, the areas requiring ultrasonic examination could be substantial. If concerns exist that readings will be too far apart, it is recommended to change and reduce the grid size and only examine the grid intersections. Also, no provision or alternative is provided for determining wall thinning (e.g., mechanical measurements).

Paragraph IWE-2600(b)

Is the application of paint or coatings contained within the scope of ASME XI? This is inconsistent with other ASME Code Sections.

Examination Tables of IWE-2500-1

Examination Category E-A:

Currently, there are proposed changes to Appendix J of 10CFR50 testing frequencies. This may affect the basis for any of the examinations specified in the Tables of IWE-2500-1. If an Owner relaxes the Appendix J testing requirements as approved by the NRC, how would the requirements be met. It should be noted that Subsection IWE adopts NRC regulations (i.e., Appendix J) into the ASME Code. However, Appendix J was not derived from the consensus process, which deprives owners the ability to change or provide input to the requirements.

Examination Category E-A, Item E1.11:

The general examination described in IWE-2510.1 is not the type of examination that looks specifically at welds and 1/2" of base material on either side. The general examination (possibly remote) appears to be closer to a VT-3 than a VT-1 which would typically be looking at individual welds and adjoining base material. Note 5 of the table may require an Owner to

identify each specific weld to ensure examination. Based on the NRC's proposed rule making integral attachments have historically not contributed to containment liner shell degradation.

Examination Category E-A, Item E1.20:

What is considered a vent system? The code should specify and not leave the owner to speculate. The requirement appears to be inadequately described.

Examination Category E-B, Note 5:

Is it the intent that containment penetrations which are subjected to both cyclic and thermal stresses be included in Item E3.10 or would just one of the two conditions be applied for selection of the penetration to be included in the scope of examinations. The code should give specific bounding parameters for applying this requirement. These terms are vague and non-specific.

Examination Category E-B, Note 4:

Examining different welds each interval is inconsistent with other subsections of Section XI (IWB, IWC, and IWD). What is the engineering basis for 25%? Is it to complete a 100% sample by the end of 40 years? This imparts an excessive requirement without a statistical basis.

Examination Category E-B, Note 3:

It is recommended that the figures referenced in the note (NE-1120-1 and NE-1131-1) be included in IWE as figures in the 2000 section. This would be consistent with other Section XI code sections. Also, if in its current form what year and addenda of Section III would be used? Currently, ASME Section III is not a referenced document in IWA-1600.

Examination Category E-B, Item E3.1:

Considering the recent approval of Code Case N-524 for reduction of the examination volume for piping longitudinal seam welds is this item applicable? Also, was it the intent to only select longitudinal welds with respect to their intersection of adjacent circumferential welds?

Examination Categories E-B, E-C, E-D and E-G:

The examination requirements portion of the tables are incomplete and/or are not consistent with other subsections of Section XI.

Examination Category E-D:

It is Entergy's opinion that gaskets and seal VT-3 examinations should not be in the scope of this document. In no other sub-section of Section XI are there requirements for this type of examination especially on those systems that are much more critical than the containment structure. The entire containment and its penetrations are subjected to periodic leak rate testing on a frequency determined by the plant Technical Specifications. The Appendix J testing requirements of 10CFR50 is a more quantifiable test for detecting seal and gasket degradation than a VT-3.

Under this examination category, is it the intent of IWE to require a pre-service VT-3 examination after installing replacement gaskets in the course of a repair or replacement? Gaskets and seals are exempted from the repair/replacement rules of IWA-4000 and do not require examination in other subsections of Section XI.

Examination Category E-F:

Under the Examination Requirements column of the table, Figure No. IWE-2500-1 is referenced. Does this examination requirement only pertain to full penetration butt welds? Also, the figure requires a surface examination from both surfaces. (ID and OD). How is this to be accomplished? In almost all cases, design accessibility and configuration only permits access from one side of the weld requiring Owner's to file a significant number of requests for relief to the NRC. It is recommended that the surface examination be similar to that contained in Figure IWB-2500-8.

Examination Category E-F, Note 4

What is the technical basis for selecting different welds each inspection interval. It is not apparent that the 50% selection criteria is based on any statistical analysis and is arbitrary and subjective.

Examination Category E-F

If a weld is determined to be both a dissimilar metal weld and a containment penetration weld, under which examination category should the weld be counted and examined, Examination Category E-F or Examination Category E-B?

Examination Category, E-P

It is difficult to see the value added by this table as it appears to be incomplete and inconsistent with Appendix J of 10CFR50. Now that Appendix J becomes a Section XI activity, may an Owner file requests for relief under 10CFR50.55a(g)(5)(iv)? This presents the potential for conflicts arising with Plant Technical Specifications and duplicity of reporting requirements.

Since Appendix J pressure testing now becomes a Section XI activity, does this table preclude the performance of the Type "A"?

In the table, the column for examination method is inconsistent with other Section XI subsections in that 10CFR50, Appendix J is not a method of examination specified in IWA-2000. Also, specific acceptance criteria is specified in the Owner's Plant Technical Specifications and not in Appendix J. It is recommended that the acceptance criteria be specified in IWE-3000 as is with Subsection IWB-3000.

Paragraph IWE 3515

It is recommended that paragraph 3515.1 delineate acceptance standards similar to those contained in IWB-3517.1 for bolting less than 2 inches for VT-1 examinations. The reference to material standards and specifications is vague and difficult to implement. IWE-3515.1 also does not allow for repair and only permits replacement.

Paragraph IWE-3515.2 should be specific. Bolt torquing has never been considered a Section XI activity. This paragraph imposes new requirements without specifying personnel or equipment qualifications. Are current maintenance programs sufficient to satisfy the requirements?

Paragraph IWE-3112

Paragraphs IWE-3112 and IWE-3122.1 state that changes of flaws or areas of degradation shall be recorded per IWA-6220. This is inconsistent with IWA-6210(d) which states that only Class 1 and 2 examinations are to be included in the Owners Summary Report (Form NIS-1). Also, it appears that these paragraphs only include requirements for reporting flaws and not for scheduled examinations which are evaluated to be acceptable.

Paragraph IWE-3122.2

This paragraph references IWE-2430 while IWE-3122.3 and IWE 3122.4 do not. Does this mean that additional examinations are only required when performing repairs and not when the component is replaced or evaluated to be acceptable? IWE-2430 states that additional

examinations shall be performed when the acceptance standards of IWE-3410-1 are exceeded with no reference to what corrective action is utilized.

Paragraph IWE-3122.4(a)

Is it the intent of the first paragraph that a flaw be acceptable for continued service if the evaluation determines that the flaw has no unacceptable affect on structural integrity? As currently worded, any effect would not meet IWE-3122.4

Paragraph IWE-3200

Is it the intent of the last sentence to require a surface or volumetric examination on each and every area that is suspect? As an example, an irregular surface condition may exist under a painted or coated surface. The Owner would be forced to perform a surface or volumetric examination when only removal of the paint may have sufficed to indicate that there may have been only minor anomalies in the coating or paint itself. Similar wording of IWB-3200(b) should be considered.

Paragraphs IWE-3510, 3511, 3512, and 3513

The acceptance standards listed in these paragraphs indicate conditions that may pose a problem, but are not criteria from which an Owner may derive actual acceptability of a component. When considering paragraph IWE-2430, additional examinations would have to be performed for all of the conditions identified. Was this the intent of these acceptance standards? These paragraphs are inconsistent with the criteria developed for the acceptance standards of IWB and IWC-3000.

Paragraphs IWE-3510.2 and .3, IWE-3511.1 and .2, IWE-3512.1 .2 and .3

These paragraphs specify that supplemental examinations shall be performed when specified in the "Engineering Evaluation". IWE-3200 states that all suspect areas shall receive supplemental examinations without reference to the "Engineering Evaluation". These paragraphs appear to have conflicting requirements.

Paragraphs IWE-3510 and 3511

Paragraphs IWE-3510.2 and 3510.3 are worded exactly as Paragraphs IWE-3511.1 and 3511.2. Considering that the 3510 section is a VT-3 examination and the 3511 section is for VT-1, essentially the same acceptance standards exist for two different examination methods. Does this mean the examination methods are the same?

Paragraph IWE-3512.3

What mandatory appendices of Section XI are to be applied for the ultrasonic examinations required by this paragraph?

Paragraph IWE-5240

This paragraph refers the Owner to IWA-5246 which does not exist. This was later corrected in the 1993 Addenda of Section XI to refer back to IWA-5240. Does the use of IWA-5240 require examiners performing Appendix J tests to be VT-2 certified? Examiners performing Appendix J tests should not be required to be VT-2 certified.

Paragraph IWL-2220.2

This paragraph implies that the data of items (a) through (e) was required to be recorded in the construction records of plants that were placed in service several years ago. If the information was not recorded would specific relief from these requirements be required to satisfy 10CFR50.55a?

Paragraph IWL-2421(a)

It is unclear what "post-tensioning operations for the two containments were completed not more than two years apart" means? Is it the difference in the dates of actual post-tensioning or the difference in the dates of the respective Structural Integrity Tests or something else?