PART 121—POSSESSION OF BIOLOGICAL AGENTS AND TOXINS

3. The authority citation for part 121 continues to read as follows:

Authority: Secs. 211–213, Title II, Pub. L. 107–188, 116 Stat. 647 (7 U.S.C. 8401).

4. In § 121.1, the definitions for *biological agent* and *toxin* are revised to read as follows:

§ 121.1 Definitions.

Biological agent. Any microorganism (including, but not limited to, bacteria, viruses, fungi, rickettsiae, or protozoa), or infectious substance, or any naturally occurring, bioengineered, or synthesized component of any such microorganism or infectious substance, capable of causing:

(1) Death, disease, or other biological malfunction in a human, an animal, a plant, or another living organism;

(2) Deterioration of food, water, equipment, supplies, or material of any kind; or

(3) Deleterious alteration of the environment.

* * * * *

Toxin. The toxic material or product of plants, animals, microorganisms (including, but not limited to, bacteria, viruses, fungi, rickettsiae, or protozoa), or infectious substances, or a recombinant or synthesized molecule, whatever their origin and method of production, and includes:

(1) Any poisonous substance or biological product that may be engineered as a result of biotechnology produced by a living organism; or

(2) Any poisonous isomer or biological product, homolog, or derivative of such a substance.

Done in Washington, DC, this 20th day of September, 2002.

Peter Fernandez,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 02–24423 Filed 9–25–02; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

RIN 3150–AG61

Industry Codes and Standards; Amended Requirements

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is amending its regulations to incorporate by reference a later edition and addenda of the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (BPV Code) and the ASME *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code) to provide updated rules for construction, inservice inspection (ISI), and inservice testing (IST) of components in light-water cooled nuclear power plants. This final rule incorporates by reference the latest edition and addenda of the ASME BPV and OM Codes that have been approved for use by the NRC subject to certain limitations and modifications.

EFFECTIVE DATE: October 28, 2002. The incorporation by reference of certain publications in this rule is approved by the Director of the Office of the Federal Register as of October 28, 2002

ADDRESSES: The NRC maintains an Agencywide Documents Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The documents may be accessed through the NRC's Public Electronic Reading Room on the Internet at *http://www.nrc.gov/reading-rm/adams.html.* If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC at 1–800–397–4209, (301) 415–4737, or by email to pdr@nrc.gov. The availability of the Regulatory Analysis, Environmental Assessment, and Resolution of Public Comments associated with this rulemaking is further discussed in Section 5 below, under **SUPPLEMENTARY INFORMATION.**

FOR FURTHER INFORMATION CONTACT: Stephen Tingen, Division of Engineering, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001. Alternatively, you may contact Mr. Tingen at (301) 415–1280, or via e-mail at: *sgt@nrc.gov.*

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1. Background

On August 3, 2001 (66 FR 40626), the NRC published a **Federal Register** notice that presented a proposed rule to amend 10 CFR part 50, ''Domestic Licensing of Production and Utilization Facilities.'' The proposed rule would revise the requirements for construction, ISI, and IST of nuclear power plant components. For construction, the proposed rule would permit the use of Section III, Division 1, of the ASME BPV Code, 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda for Class 1, Class 2, and Class 3 components with no new modifications or limitations.

For ISI, the proposed rule would permit the use of Section XI, Division 1, of the ASME BPV Code, 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda for Class 1, Class 2, Class 3, Class MC, and Class CC components with new modifications and limitations.

For IST, the proposed rule would permit the use of the ASME OM Code, 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda for Class 1, Class 2, and Class 3 pumps and valves with one new modification.

In the same **Federal Register** notice, the Commission withdrew a proposed rule (64 FR 22580; April 27, 1999) that would have eliminated the requirement for licensees to update their ISI and IST programs every 120 months beyond a

baseline edition and addenda of the ASME Code. That withdrawal was a final action—not part of the proposed rule.

2.0 Public Comments on Proposed Rule; and Final Rule

Interested parties submitted written comments on the proposed rule published on August 3, 2001 (66 FR 40626). Comments were received from 17 separate sources. These sources consisted of 10 utilities, 4 service organizations, and 3 individuals. In response to the public comments, the NRC has either removed or revised some modifications and limitations that were proposed. A summary of the public comments applicable to the proposed rule and their resolution are provided in the following sections. Public comments on the proposed rule that are not addressed in the final rule are addressed in the Resolution of Public Comments. The availability of the Resolution of Public Comments is further discussed in Section 5 below.

The NRC has considered and resolved the public comments and has revised the final rule accordingly. The NRC is publishing these final regulations in § 50.55a to incorporate by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Division 1 rules of Section III of the ASME BPV Code; the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Division 1 rules of Section XI of the ASME BPV Code; and the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME OM Code for construction, ISI, and IST of components in nuclear power plants. Section III of the ASME BPV Code is acceptable for use with no new limitations or modifications. Section XI of the ASME BPV Code is acceptable for use subject to limitations and modifications. The ASME OM Code is acceptable for use subject to one modification.

This final rule also revises the regulations in § 50.55a that licensees use to modify the implementation of Appendix VIII, ''Performance Demonstration for Ultrasonic Examinations Systems,'' to Section XI of the ASME BPV Code. The amendment clarifies existing ultrasonic (UT) examination qualification requirements in § 50.55a. The amendment also adds new requirements to clarify the coordination of Appendix VIII with other parts of Section XI.

2.1 Section III

There were no public comments on the proposed rule concerning Section III. This final rule revises § 50.55a(b)(1) to incorporate by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section III of the ASME BPV Code; clarify that the 1963 Edition was the initial edition of Section III incorporated by reference in the regulations; and extend the applicability of the existing regulations in §§ 50.55a(b)(1)(ii), 50.55a(b)(1)(iii), and 50.55a(b)(1)(v) to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section III of the ASME BPV Code.

2.2 Section XI

Public comments on the proposed rule concerning Section XI are addressed in the following sections. This final rule revises § 50.55a(b)(2) to incorporate by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI of the ASME BPV Code; clarify that the 1970 Edition was the initial edition of Section XI incorporated by reference in the regulations; and extend the applicability of the existing regulations in §§ 50.55a(b)(2)(viii), 50.55a(b)(2)(ix), 50.55a(b)(2)(xi), 50.55a(b)(2)(xv), and 50.55a(b)(2)(xvii) to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI of the ASME BPV Code. This final rule also deletes the existing regulations in § 50.55a(g)(6)(ii)(B)(*1*) through (*4*) because the implementation dates have expired and all licensees have completed the requirements or have been approved by an exemption for a delay. The existing requirement that was formerly § 50.55a(g)(6)(ii)(B)(*5*) is redesignated as § 50.55a(g)(6)(ii)(B).

Although § 50.55a(b)(2)(vi) is not addressed in the proposed rule, one commenter stated that § 50.55a(b)(2)(vi) should be revised to include references to the 1998 Edition through the 2000 Addenda of the ASME Code for the ISI of Class MC and Class CC components. The commenter noted that §§ 50.55a(b)(2)(viii) and (ix) in the proposed rule reference the 1998 Edition through the 2000 Addenda, therefore, § 50.55a(b)(2)(vi) should also reference the 1998 Edition through the 2000 Addenda.

The NRC agrees that § 50.55a(b)(2)(vi) should be revised to clarify the applicability of the 1998 Edition through the 2000 Addenda to containment ISI programs but does not agree with the revision suggested by the commenter. The statement of considerations for the final rule published on September 22, 1999 (64 FR 51370), states that either the 1992 Edition with the 1992 Addenda, or the 1995 Edition with the 1996 Addenda of IWE and IWL must be used to develop and implement a containment ISI program within 5 years. The NRC finds that the existing requirements in § 50.55a(b)(2)(vi) only address the applicable edition and addenda of IWE and IWL to be used during initial 120-month interval for the ISI of Class CC and Class MC components. Therefore, § 50.55a(b)(2)(vi) is revised to clarify that the 1992 Edition with the 1992 Addenda, or the 1995 Edition with the 1996 Addenda of IWE and IWL must be used when implementing the initial 120-month interval for the ISI of Class MC and Class CC components, and that successive 120-month interval updates must be implemented in accordance with § 50.55a(g)(4)(ii).

The proposed rule would add a new § 50.55a(g)(6)(ii)(B)(*1*) to clarify the start date of the first 120-month interval for the ISI of Class MC and Class CC components. Some commenters indicated that § 50.55a(g)(6)(ii)(B)(*1*) in the proposed rule did not clarify the start date of the first 120-month interval for the ISI of Class MC and Class CC components. Other commenters suggested a revised regulation that they thought would be more appropriate.

The NRC finds that the proposed regulation regarding the start date of the first 120-month interval for the ISI of Class MC and Class CC components has created confusion rather than clarifying existing requirements as intended. The clarification in the proposed rule would also create a hardship for many licensees in reestablishing the start date of their first 120-month containment ISI interval. It was not the intent of the NRC to alter the 10-year examination interval in IWE or the 5-year examination interval in IWL already established by licensees. Licensees are permitted to schedule examinations of Class MC and Class CC components in accordance with the requirements in IWE and IWL. Therefore, the clarification of the first 120-month interval start date in § 50.55a(g)(6)(ii)(B)(*1*) in the proposed rule is not adopted.

In responding to this clarification, several commenters indicated that the 10-year IWE and 5-year IWL examination intervals must coincide with the 120-month interval update in § 50.55a(b)(4)(ii). The NRC does not agree that the 10-year IWE and 5-year IWL examination intervals must coincide with the 120-month interval update in § 50.55a(b)(4)(ii). The 10-year IWE and 5-year IWL examination intervals are independent of the 120-month interval update in § 50.55a(g)(4)(ii). Section 50.55a(g)(4)(ii) does not prohibit licensees from updating to a later edition and addenda of the ASME Code midway through a

10-year IWE or 5-year IWL examination interval.

In responding to this clarification, several commenters implied that the final rule dated August 8, 1996 (61 FR 41303), requiring licensees to develop and implement a containment ISI program for Class MC components in accordance with IWE of Section XI, authorized the extension of the first period inspection from 40 months to 60 months in duration. The NRC does not agree. The schedule in the containment final rule did not extend the duration of the 40-month inspection period required by IWE. This issue was addressed in the response to Question 13 in a letter to the Nuclear Energy Institute from NRC dated May 30, 1997.

In responding to this clarification, several commenters indicated that the final rules dated August 8, 1996 (61 FR 41303), and September 22, 1999 (64 FR 51370), create a hardship when implementing 120-month interval updates required by § 50.55a(g)(4)(ii). The NRC agrees with this comment. The final rule dated August 8, 1996, required licensees to implement an ISI program for Class MC and Class CC components using the 1992 Edition with the 1992 Addenda of IWE and IWL. The final rule dated September 22, 1999, required licensees to implement Appendix VIII UT qualification requirements using the 1995 Edition with the 1996 Addenda of Section XI. Consequently, the schedule for 120-month interval updates for the ISI of Class MC and Class CC components, Appendix VIII UT qualification requirements, and the ISI of Class 1, 2, and 3 components might not coincide. This creates a hardship for licensees because ISI programs are required to maintain up to 3 separate editions and addenda of Section XI—one edition and addenda applicable to the ISI of Class MC and Class CC components, another edition and addenda applicable to the ISI of Class 1, 2, and 3 components, and a third edition and addenda applicable to Appendix VIII UT qualification requirements. Therefore, licensees may wish to synchronize 120-month interval updates such that the same edition and addenda of Section XI apply to the ISI of Class MC and Class CC components, Appendix VIII UT qualification requirements, and the ISI of Class 1, 2, and 3 components. Licensees wishing to synchronize their 120-month intervals may submit a request in accordance with § 50.55a(a)(3) to obtain authorization to extend or reduce 120-month intervals.

2.2.1 Owner-Defined Requirements for Class CC and Class MC Components

The proposed rule addresses NRC concerns with ''owner-defined'' requirements in IWE and IWL. Revisions to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE and IWL permit each licensee to define requirements that were previously defined in the ASME Code.

A number of commenters indicated that ''owner-defined'' requirements are acceptable because the regulations in Appendix B of 10 CFR 50, ''Quality Assurance Criteria For Nuclear Power Plants and Fuel Reprocessing Plants,'' and the Responsible Engineer/Individual oversight provisions (as delineated in IWE and IWL) ensure that requirements defined by the owner are properly implemented.

The NRC does not agree that the quality assurance requirements in Appendix B of 10 CFR 50 and the oversight duties of the Responsible Engineer/Individual alone are adequate to ensure that owner-defined requirements are properly implemented. The final rule published on August 8, 1996 (61 FR 41303), required licensees to develop and implement a containment ISI program for Class MC and Class CC components in accordance with IWE and IWL. The final containment rule stated that the rule was needed because none of the existing requirements provide specific guidance on how to inspect containment surfaces. This lack of guidance resulted in a large variation with regard to the performance and the effectiveness of licensee containment inspection programs. Based on the results of inspections and audits, as well as plant operational experiences, it was clear to the NRC that without specific guidance, several licensee containment inspection programs were unable to detect degradation that could ultimately result in a compromise to the containment pressure-retaining capability. Some containment structures had been found to have undergone a significant level of degradation that was not detected by existing programs. Given the number and the extent of the occurrences, and the variability among plants with regard to the performance and the effectiveness of containment inspections, the NRC believed that the prudent course of action was to impose the more specific ISI inspection requirements in the 1992 Edition with the 1992 Addenda of IWE and IWL. The containment final rule imposed requirements that define comprehensive and technically sound methods that ensure uniform containment inspection results among all licensees.

The NRC believes that it is inappropriate to approve Code provisions that do not contain specific containment inspection guidance when prior experience demonstrates that specific containment inspection guidance is necessary. The quality assurance provisions in Appendix B of 10 CFR 50 and the oversight duties of the Responsible Engineer/Individual do not ensure uniform containment inspection results among all licensees. Furthermore, the quality assurance provisions in Appendix B of 10 CFR 50 did not prevent the previous problems associated with a lack of guidance. Reliance on Appendix B of 10 CFR 50 resulted in a large variation in the performance and effectiveness of licensees' containment inspection programs that contributed to the NRC issuing the containment final rule.

2.2.1.1 Visual Examination Qualification Requirements (Class CC Components)

Section 50.55a(b)(2)(viii)(F) in the proposed rule would require that personnel who conduct visual examinations of containment surfaces be qualified in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2300 in place of the ''owner-defined'' qualification provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWL–2310(d). Prior to the 1998 Edition, the NRC-approved provisions in IWA–2300 were used to define the qualification requirements for personnel who conduct visual examinations of containment surfaces. The qualification requirements were revised in IWL–2310(d), 1997 Addenda, to allow the owner to define the qualification requirements for personnel who perform visual examinations of concrete and tendon anchorage hardware, wires, or strands. However, the new Code provision does not provide any criteria that the licensee must use when developing qualification requirements. Therefore, the NRC proposed that licensees continue to use the provisions in IWA–2300 to qualify personnel who perform visual inspections of containment concrete surfaces and tendon anchorage hardware, wires, or strands.

Several commenters recommended that the NRC specify the use of a more generic standard for qualification of containment examiners such as ANSI N45.2.6, ''Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants,'' to define personnel qualification provisions in

place of the requirements in IWA–2300. One commenter stated that licensees typically commit to meet the requirements of Regulatory Guide 1.58, ''Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel (Revision 1, September 1980),'' or another NRC-approved standard that endorses ANSI N45.2.6. Another commenter noted that use of the qualification standards of IWA–2300, as proposed by the NRC, is not appropriate because they were designed for examinations associated with piping systems and their supports and not containment examinations.

The NRC disagrees with the comments because the use of ''owner-defined'' qualification requirements or a generic quality assurance standard to qualify containment examiners does not provide adequate guidance to ensure that examiners are qualified to inspect containment surfaces. The NRC prefers instead that the ASME Code identify the specific elements deemed necessary to ensure containment inspection qualification programs are adequate, or describe specific criteria that licensees must use to qualify personnel performing containment examinations. Although the existing qualification provisions in IWA–2300 were not developed specifically for qualifying examiners of concrete containment surfaces, they provide the most practical criteria that are presently available for qualification of personnel that conduct visual examinations of containment surfaces. The NRC notes that many of the changes in the later editions and addenda of IWE and IWL are more suited to containment examinations than earlier editions and addenda. The NRC withdrew Regulatory Guide 1.58 on July 31, 1991 (56 FR 36175). Therefore, the NRC no longer endorses the use of ANSI 45.2.6 for the ISI of containment surfaces in operating nuclear power plants. Section 50.55a(b)(2)(viii)(F) in the proposed rule is adopted without change.

2.2.1.2 Visual Examination Qualification Requirements (Class MC and Liners of Class CC)

Section 50.55a(b)(2)(ix)(F) of the proposed rule would require that personnel who conduct visual examinations of containment surfaces be qualified in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2300 of in place of the ''owner-defined'' qualification provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda IWE–2330(a). Prior to the 1998 Edition, the NRC approved provisions in IWA–2300 were used to define the qualification requirements for personnel who conduct visual examinations of containment surfaces.

There was one public comment on § 50.55a(b)(2)(ix)(F), which is discussed in the following Section 11, Backfit Analysis. In consideration of the public comment, the qualification requirements for personnel that conduct visual inspections of containment surfaces have been revised to require that VT–1 and VT–3 examinations must be conducted in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2200. Personnel conducting examinations in accordance with the VT–1 or VT–3 examination method shall be qualified in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2300.

2.2.1.3 General and Detailed Visual Examinations

Section 50.55a(b)(2)(ix)(G) in the proposed rule would require that the general and detailed visual examinations required by the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–2310(b) and IWE–2310(c) meet the VT–1 and VT–3 examination method provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2210 in place of the ''owner-defined'' general and detailed visual examination provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–2310(a), and allow licensees to continue to extend Table IWA–2210–1 maximum direct examination distance and decrease Table IWA–2210–1 minimum illumination requirements as currently stated in § 50.55(b)(2)(ix)(B).

The distance and illumination requirements in § 50.55a(b)(2)(ix)(G) in the proposed rule have been removed because these requirements are addressed in the existing § 50.55a(b)(2)(ix)(B). There was one public comment on § 50.55a(b)(2)(ix)(G), which is discussed in the following Section 11, Backfit Analysis. In consideration of the public comment, § 50.55a(b)(2)(ix)(G) is revised to require that the VT–1 and VT–3 examination methods in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2200 be used to conduct specific visual examinations in Table IWE–2500–1 in place of the ''owner-defined'' visual examination methods in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–2310(b) and IWE–2310(c). The VT–3 examination method must be used to conduct the examinations in Items E1.12 and E1.20 of Table IWE–2500–1, and the VT–1 examination method must be used to conduct the examination in Item E4.11 of Table IWE–2500–1. An examination of the pressure-retaining bolted connections in Item E1.11 of Table IWE–2500–1 using the VT–3 examination method must be conducted once each interval.

2.2.2 Examination of Containment Bolted Connections

Section 50.55a(b)(2)(ix)(H) of the proposed rule would require that the acceptance standard in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWC–3513 be used to evaluate flaws in pressure-retaining bolting greater than or equal to 51 millimeters [2.0 inches] in diameter which are identified during the examination of containment surfaces. The acceptance standard would be used in place of the ''owner-defined'' acceptance standard in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–3510.1.

Several commenters stated that § 50.55a(b)(2)(ix)(H) of the proposed rule is unnecessary because there are no substantial differences between the revised standard for bolting materials in the 1998 Edition and the standard for bolting materials in editions and addenda earlier than the 1998 Edition. The NRC disagrees. The bolting standard for bolting materials in the editions and addenda of IWE–3515.1 earlier than the 1998 Edition was significantly revised in the 1998 Edition. Prior to the 1998 Edition, IWE–3515.1 stated that bolting material must be examined in accordance with the material specification for defects which may cause the bolted connection to violate either the containment leak-tight or structural integrity. IWE–3515.1 was revised and renumbered as IWE–3510.3 in the 1998 Edition to require that the owner define the standard for examining bolting materials. Since containment bolting is not unique from other bolting applications in Section XI, the NRC finds that the examination of containment bolting should be consistent with other Section XI bolting examination requirements.

A number of commenters stated that IWC–3513 is not the appropriate standard to use to evaluate flaws in pressure-retaining bolting. One commenter recommended that IWB–3517.1 be used in place of IWC–3513. The NRC agrees and finds that the visual examination criteria for bolting in IWE–3517.1 is an acceptable standard because it enures that the integrity of reused bolting is maintained. Section 50.55a(b)(2)(ix)(H) is revised to require that bolting material be examined in accordance with the material specification or the 1997 Addenda, 1998

Edition, 1999 Addenda, and 2000 Addenda of IWB–3517.1.

Section 50.55a(b)(2)(ix)(I) in the proposed rule would require licensees to supplement the containment bolted connection examination requirements in Items E1.10 and E1.11 of the 1998 Edition, 1999 Addenda, and 2000 Addenda of Table IWE–2500–1 with additional requirements for examining inaccessible areas of containment bolting.

One commenter stated that since the ASME Code requires that accessible areas of containment bolted connections be more frequently examined in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE than in the earlier editions and addenda, bolting examination requirements have been enhanced. The NRC disagrees. Although the revised provisions increase the frequency of accessible examinations of containment bolting, the revised provisions reduce the frequency of examinations of inaccessible areas of containment bolting. The 1992 Edition with the 1992 Addenda and the 1995 Edition with the 1996 Addenda of IWE provide acceptable provisions for conducting examinations of the accessible and inaccessible areas of containment bolted connections. Item No. E8.10 of Table IWE–2500–1 requires that a visual examination of the individual parts of the bolted connection using the VT–1 visual examination method be performed whenever a connection is disassembled during a scheduled ISI inspection. Item E8.20 of Table IWE–2500–1 requires that a bolt torque or tension test be performed on bolted connections that have not been disassembled during the inspection interval. A bolt torque or tension test provides an indication of the integrity of the inaccessible areas of a bolted connection. The requirements in Items E8.10 and E8.20 requiring that containment bolting either be disassembled and examined (VT–1), or torque tested every interval were deleted in the 1998 Edition of IWE.

Several commenters suggest that § 50.55a(b)(ix)(I) of the proposed rule be revised to allow the option of conducting visual examinations of the inaccessible areas of containment bolted connections during maintenance that requires a bolted connection be disassembled or during visual examinations that are conducted during scheduled ISI inspections. In consideration of the public comments, the modification that was formerly § 50.55a(b)(ix)(I) in the proposed rule is revised in the final rule to allow licensees the option of performing visual examinations of inaccessible areas of containment bolted connections during maintenance evolutions or scheduled inspections. Any bolted connections that are disassembled during the scheduled performance of Item E1.11 examinations must be examined using the VT–3 examination method. Flaws or degradation identified during the performance of this VT–3 examination must be examined in accordance with the VT–1 examination method. The criteria in the material specification, or the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWB–3517.1 must be used to evaluate bolting flaws or degradation. As an alternative to performing the VT–3 examination during the scheduled performance of Item E1.11, VT–3 examination of bolting may be conducted whenever containment bolting in Item E1.11 is disassembled for any reason. Sections 50.55a(b)(ix)(I) and 50.55a(b)(ix)(H) in the proposed rule have been combined as § 50.55a(b)(ix)(H) in this final rule.

2.2.3 Acceptance Standard for Surfaces Requiring Augmented Ultrasonic Examinations

Section 50.55a(b)(2)(ix)(J) in the proposed rule would require that the ultrasonic (UT) examination acceptance standard specified in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–3511.3 for Class MC pressure-retaining components also apply to metallic liners of Class CC pressure-retaining components. A UT acceptance standard is needed for metallic liners of Class CC pressure-retaining components to evaluate conditions that are identified during an examination that may be unacceptable. Therefore, the NRC proposed to continue to use the UT acceptance standard in IWE–3511.3 for metallic liners of Class CC pressure-retaining components.

Several commenters stated that § 50.55a(b)(2)(ix)(J) of the proposed rule is not needed because the provisions in IWE–3122.3 provide an appropriate standard for evaluating degradation and aging of metallic liners of Class CC pressure-retaining components. The NRC disagrees. Item E4.12 of the 1998 Edition, 1999 Addenda, and 2000 Addenda of Table IWE–2500–1, states that IWE–3511 is the acceptance standard for UT examinations. IWE–3122.3 is not referenced in Table IWE–2500–1 as an acceptance standard. The acceptance standard in IWE–3511 addresses Class MC pressure-retaining components and does not address metallic liners of Class CC pressure-retaining components. Prior to the 1995 Addenda to Section XI, the standard in IWE–3511 addressed Class MC pressure-retaining components and metallic liners of Class CC pressure-retaining components. IWE–3511 was revised in the 1995 Addenda to address only Class MC pressure-retaining components. The NRC believes that the acceptance standard in the 1995 Addenda, 1996 Addenda, 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–3511 is incomplete because it does not address metallic liners of Class CC pressure-retaining components.

Several commenters stated that § 50.55a(b)(2)(ix)(J) of the proposed rule is inappropriate because a concrete metallic liner can be allowed to significantly degrade and still accomplish its design function. Therefore, imposing an acceptance limit of 10 percent of the nominal wall thickness is extremely conservative and unwarranted.

The NRC disagrees and believes that the UT acceptance limit of 10 percent of the nominal wall thickness is warranted. Concrete containments are constructed with metallic liners as the final leak-tight barrier against radioactive releases to the atmosphere. By the virtue of being anchored to the concrete, the liner carries stresses and strains imparted by the concrete in addition to the loads of the liner itself. General or pitting corrosion occurring in a large area of the liner creates discontinuities in the liner behavior under accident pressure and earthquake loads which would result in a high stress concentration area in the liner. The model tests on concrete containments (*e.g.*, NUREG/CR–5431, ''Round-Robin Analysis of the Behavior of a 1:6 Scale Reinforced Concrete Containment Model Pressurized to Failure: Posttest Evaluation'') have shown that once a liner tear occurs due to high stress concentration, the containment losses its ability to retain radioactive releases. Thus, the liner integrity must be monitored and maintained during the operating life of the containment. The modification in the proposed rule is identical to what was approved for use by the ASME Code in the 1995 Edition and earlier editions and addenda of the ASME Code. Section 50.55a(b)(2)(ix)(J) of the proposed rule is presented here in the final rule as § 50.55a(b)(2)(ix)(I). Section § 50.55a(b)(2)(ix)(I) is otherwise adopted without change.

2.2.4 Containment Penetration Piping

Section 50.55a(b)(2)(xii)(A) in the proposed rule would prohibit welds in high-energy fluid system piping that are located inside a containment penetration assembly or encapsulated by a guard pipe from being exempted from the examination provisions of

Subsection IWC as permitted by the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWC–1223. The revised Code provisions appeared to be inconsistent with NRC's guidelines on ''break exclusion zone'' design and examination criteria for containment penetration piping. Specifically, Branch Technical Position EMEB 3–1, ''Postulated Rupture Locations in Fluid System Piping Inside and Outside Containment,'' an attachment to NRC Standard Review Plan (SRP) Section 3.6.2, ''Determination of Rupture Locations and Dynamic Effects Associated with Postulated Rupture of Piping'' (NUREG–0800), allows that breaks and cracks in high-energy fluid piping in containment penetration areas need not be postulated provided that certain criteria are met. These criteria include a commitment that where guard pipes are used, the enclosed portion of fluid system piping should be seamless construction and without circumferential welds unless specific access provisions are made to permit inservice volumetric examination of the longitudinal and circumferential welds; and a 100 percent volumetric inservice examination of all pipe welds is conducted during each inspection interval as defined in IWA–2400 of Section XI of the ASME BPV Code. Licensees may have made commitments to follow the provisions in SRP 3.6.2 as a part of their licensing design basis.

The commenters stated that § 50.55a(b)(2)(xii)(A) of the proposed rule is unnecessary because the regulatory requirements associated with high energy line breaks are independent from the scope of Section XI. Commenters also noted that it is inappropriate for the NRC to impose limitations to maintain commitments used to license plants.

The NRC agrees that the regulatory guidelines associated with high energy line breaks are separate from the regulatory requirements associated with the ISI of nuclear power plant components. The intent of § 50.55a(b)(2)(xii)(A) in the proposed rule was to ensure that licensee commitments regarding high energy line breaks in Branch Technical Positions under SRP 3.6.2 would not be eliminated from a misapplication of the exemption allowed in IWC–1223. The NRC concludes that it is the responsibility of each licensee to ensure that changes to later editions and addenda of the ASME Code are not misapplied to licensing design bases commitments, and that it is inappropriate for the NRC to impose modifications or limitations in § 50.55a to ensure that commitments, not directly related to Section XI requirements but part of the licensing design basis, are maintained. Therefore, § 50.55a(b)(2)(xii)(A) in the proposed rule is not adopted.

Section 50.55a(b)(2)(xii)(B) in the proposed rule would require that piping that penetrates the containment that is connected to a system not in the scope of Section XI (*i.e.*, not safety-related) be pressure tested in accordance with the 1996 Addenda and earlier editions and addenda of IWA–5110(c).

A number of commenters stated that § 50.55a(b)(2)(xii)(B) is unnecessary because the Type C local leak rate test (LLRT) in Appendix J of 10 CFR 50, ''Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors,'' provides an acceptable method for ensuring the leak-tight integrity of the containment penetration piping, and that the test requirements in the editions and addenda of IWA–5110(c) earlier than the 1997 Addenda are redundant. The commenters stated that test equipment used for LLRT is capable of detecting extremely small leakage, and that the regulations in Appendix J of 10 CFR 50 contain acceptance criteria for leakage identified during testing. Commenters also noted that Appendix J does not differentiate between measured leakage emanating out of the piping and out of the containment isolation valves. However, the commenters noted that this determination is unnecessary because the Appendix J maximum allowable leakage limit accounts for all leakage regardless of where it emanates.

The NRC agrees that Appendix J provides an acceptable method for testing the leak-tightness of the containment penetration piping. Appendix J of 10 CFR 50 requires that piping between the containment isolation valves be pressurized with air during seat leak testing of the containment isolation valves. Any leakage emanating from the piping and containment isolation vales is measured and evaluated in accordance the criteria in Appendix J. The NRC finds that the Appendix J Type C LLRT provides an acceptable basis for ensuring the containment penetration piping integrity when the only safety function of the containment penetration piping is to provide containment integrity. Therefore, § 50.55a(b)(2)(xii)(B) in the proposed rule is not adopted.

2.2.5 Certification of Nondestructive Examination (NDE) Personnel

Section 50.55a(b)(2)(xviii)(A) in the proposed rule would require that all Level I and Level II NDE personnel be recertified on a 3-year interval in lieu of the 5-year interval specified in the 1997 Addenda and 1998 Edition of IWA–2314, and the 1999 Addenda and 2000 Addenda of IWA–2314(a) and IWA–2314(b). Prior to 1997, Level I and II NDE personnel were recertified on a 3-year interval.

A number of commenters objected to § 50.55a(b)(2)(xviii)(A) in the proposed rule. The commenters explained that the 1996 Addenda and earlier editions and addenda of IWA–2314 require that Level I and Level II personnel be recertified by qualification examination every 3 years, and that Level III personnel be recertified by qualification examination every 5 years. The commenters stated that the 5-year recertification interval should also be acceptable for Level I and Level II personnel because the 5-year recertification interval for Level III personnel has been approved by the NRC since 1989. The commenters also disagreed with the NRC position that available data do not support recertification examinations at a frequency of every 5 years. On the contrary, the commenters stated that since the recertification interval was increased from 3 to 5 years in 1989 for Level III personnel, there is no data to support that a decrease in proficiency of Level III personnel has occurred. The commenters claimed that the improved annual practice requirements for UT examiners ensure the proficiency of UT examiners is maintained throughout the 5-year period. One commenter stated that Section XI is one of the few standards that require recertification by examination every 3 years, and that other countries recertify personnel every 5 to 10 years.

The NRC did not approve the extension of the recertification frequency from 3 years to 5 years in the proposed rule because the proficiency of examination personnel decreases over time, and available data do not support recertification examinations at a frequency of every 5 years. Although one commenter (a licensee) stated that it has a 100 percent recertification pass rate, the public comments did not provide or reference any data that NRC could review that supports extending the recertification frequency of Level 1 and Level 2 NDE personnel from 3 years to 5 years. Therefore, the NRC is not approving the extension of the recertification interval for Level I and Level II NDE personnel from 3 to 5 years at this time. Section 50.55a(b)(2)(xviii)(A) in the proposed rule is adopted without change.

Section 50.55a(b)(2)(xviii)(B) in the proposed rule would supplement the alternative qualification provisions for

VT–2 visual examination personnel in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2316 with the requirements that VT–2 examination personnel pass an initial test and then be retested every 3 years.

Commenters indicated that the intent of IWA–2316 is to only qualify personnel that observe for leakage during system leakage and hydrostatic tests conducted in accordance with IWA–5211(a) and (b), and objected to § 50.55a(b)(2)(xviii)(B) in the proposed rule on the basis that experienced plant personnel such as system engineers, licensed and non-licensed operators, and maintenance staff perform the VT–2 examinations. The commenters argue that the basic knowledge level of these types of personnel is adequate to inspect plant systems during leakage tests. The commenters also note that the NRC has granted relief allowing licensees to implement the VT–2 visual examination qualification conditions in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2316 without requiring initial tests and periodic retests. The commenters also noted that the existing NRC-approved requirements in the 1995 Edition with the 1996 Addenda of IWA–2300 require that personnel who conduct NDE be qualified in accordance with CP–189. The commenters stated that VT–2 qualification requirements are not in the scope of CP–189 nor are they addressed in CP–189 because there are no unique technical requirements associated with performing VT–2 examinations. VT–2 examinations are conducted to detect evidence of leakage from pressure-retaining components during system pressure tests. The use of special equipment, examination techniques, and evaluation of test results associated with other NDE methods such as volumetric and surface examinations are not applicable to VT–2 examinations. VT–2 examinations do not include the evaluation of the material conditions of components, such as degraded conditions like loose bolting or corrosion. The commenters also stated that the proposed § 50.55a(b)(2)(xviii)(B) is unnecessary because plant administrative procedures require that personnel involved in testing be briefed prior to the test, and special requirements for conducting the VT–2 examinations are covered during the pretest brief.

The NRC agrees that there are no special or unique technical requirements associated with performing VT–2 examinations that require personnel to observe for leakage of liquids or condensation during system leakage or hydrostatic testing. However, VT–2 visual examiners also conduct other evolutions that are more complex than observing for leakage during a leakage or hydrostatic tests. Visual examiners that are VT–2 qualified also perform bubble, halogen diode leak, and mass spectrometer testing requiring the use of special equipment and examination techniques. The NRC believes that VT–2 qualification requirements in IWA–2316 should be limited to personnel that only observe for leakage of liquids or condensation during system leakage or hydrostatic testing. Therefore, § 50.55a(b)(2)(xviii)(B) is revised to clarify that IWA–2316 may only be used to qualify personnel that observe for leakage during the performance of system leakage and that hydrostatic tests are to be conducted in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–5211(a) and (b).

Section 50.55a(b)(2)(xviii)(C) in the proposed rule would supplement the alternative qualification provisions for VT–3 visual examination personnel in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2317 with the requirements that VT–3 examination personnel pass an initial test and then retested every 3 years.

Several commenters objected to § 50.55a(b)(2)(xviii)(C) in the proposed rule because experienced personnel are familiar with the performance of VT–3 examinations, and the VT–3 examination is a straightforward technique. The NRC does not agree because the material condition of many different types of components are required to be evaluated during the performance of VT–3 examinations, and there are different technical acceptance criteria specified for the many different components. For example, the acceptance criteria for examining bolting is different from the acceptance criteria for examining containment metal surfaces. Furthermore, there are critical technical requirements associated with the minimum illumination, distance, and character height that must be adhered to when performing VT–3 examinations. There are a number of options available to the VT–3 examiner that complicate qualification requirements. For example, remote visual examination can be substituted for direct visual examination resulting in the use of special test equipment. The NRC concludes that testing is required to demonstrate that VT–3 examiners are knowledgeable regarding the different requirements associated with the examination method, and that these testing requirements are consistent with other NDE methods in CP–189 that require testing to demonstrate the required knowledge. Therefore, § 50.55a(b)(2)(xviii)(C) is revised to clarify that the alternative qualification provisions for VT–3 visual examination personnel in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2317 may be used provided that VT–3 examination personnel pass an initial test and a retest every 3 years.

2.2.6 Substitution of Alternative Methods

Section 50.55a(b)(2)(xix) in the proposed rule would prohibit the use of the provision in IWA–2240 (1998 Edition, 1999 Addenda, and 2000 Addenda) and IWA–4520(c) (1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda), which allows alternative examination methods, a combination of methods, or newly developed techniques to be substituted for the methods specified in the Construction Code, provided the Authorized Nuclear Inservice Inspector (ANII) is satisfied that the results are demonstrated to be equivalent or superior to those in the Construction Code. The revision to IWA–2240 changed the applicability of the paragraph from Section XI only (ISI) to both Sections III and XI (design/construction and ISI).

A number of commenters stated that editions and addenda of Section XI approved by the NRC since the 1974 Edition of Section XI allow ANIIs to approve the substitution of alternative methods, a combination of methods, or newly developed techniques for the examinations specified in Section XI, Division 1. For example, the ANII can approve the substitution of an eddy current examination for a surface examination requirement in IWB and IWC of Section XI provided the ANII is satisfied that the results of the eddy current examination are equivalent or superior to those of the surface examination. Most of the commenters stated that the NRC should accept the revised provisions in the 1998 Addenda, 1999 Addenda, and 2000 Addenda of IWA–2240 and the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–4520(c) that extend the substitution of the alternative examination provisions to the examinations specified in the Construction Code when performing repair/replacement activities. The commenters stated that ANII qualifications require detailed knowledge of the different examination methods addressed in Section XI and the Construction Code. One commenter stated that ASME QAI–1–1995, ''Qualifications for Authorized

Inspection,'' is the applicable qualification standard that must be used to qualify ANIIs, and that ASME QAI–1–1995 requires that ANIIs be certified in Section XI and Construction Code requirements. An example of a use of the revised provisions provided by the commenters indicated that in some instances it may be a hardship or impractical to perform a radiographic (RT) examination during a Section XI repair/replacement activity as specified in the Construction Code. The revised provisions in Section XI would allow the substitution of an alternative method such as an UT examination for the RT examination provided that the ANII is satisfied that the results of the UT examination are equivalent or superior to the RT examination specified in the Construction Code.

The NRC agrees that the provisions in IWA–2240 that allow the ANII to approve the substitution of alternative examination methods, a combination of methods, or newly developed techniques for the methods specified in Section XI, Division 1, have been approved by the NRC since 1974. The NRC has reviewed the qualification standard in ASME QAI–1–1995, and agrees that ANIIs are required to be knowledgeable regarding the NDE methods, qualification requirements, and other requirements in Section XI and the Construction Code. However, the NRC believes that the substitution of alternative methods for those specified in the Construction Code is significantly more complex than what was previously approved by the NRC in editions and addenda of IWA–2240 earlier than the 1998 Edition. For example, there are many factors that have to be evaluated when substituting a UT examination for an RT examination required by the Construction Code. Consideration needs to be given to the thickness of the weld, volume of the UT examination, appropriate UT technique, UT examination coverage criteria, UT examination procedure (Section V or Section XI), and performance demonstration methodology; calibration block material, thickness, and size; flaw evaluation acceptance criteria, and demonstration and qualification criteria for single-sided UT examinations. Weld material would also be a critical factor when considering the substitution of a UT examination for an RT examination. It may not be appropriate to allow the substitution of a UT examination for an RT examination for certain materials such as ferritic or austenitic cast products and corrosion resistant cladding with butt welds. Substitution of a UT examination for an RT examination may be acceptable for dissimilar metal welds but would require additional factors to be evaluated. The NRC finds that there is a lack of guidance in the Code to ensure proper consideration of factors when substituting alternative examinations for the examinations specified in the Construction Code. The NRC believes that a standardized repeatable methodology that can be consistently used among all licensees is needed not only to demonstrate that the alternative method is equivalent or superior to that specified in the Construction Code, but also to ensure consistent application and implementation of IWA–2240 and IWA–4520(c). Furthermore, the NRC notes that the ASME is currently developing a Code Case that will provide the necessary guidance to allow the substitution of a UT examination with an RT examination when an RT examination is required by the Construction Code. Therefore, § 50.55a(b)(2)(xix) in the proposed rule is adopted without change.

2.2.7 System Leakage Tests

Section 50.55a(b)(2)(xx) in the proposed rule would have required that the pressure and temperature hold time requirements in the 1995 Edition of IWA–5213(a) be applied in place of the revised provisions of the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–5213(a) when performing system leakage tests.

Many commenters objected to this modification because pressure and temperature hold time requirements in the 1995 Edition of IWA–5213(a) imposed by the modification place what the commenters believe to be an undue burden on utilities. One commenter noted that the ASME is currently developing a new revision to IWA–5213 to clarify the pressure and temperature hold time requirements in IWA–5213(a). A number of commenters stated that the NRC is arbitrarily choosing the pressure and temperature hold times in the 1995 Edition, and that the NRC should justify the use of the pressure and temperature hold times in the 1995 Edition.

The NRC normally requires that the Code revision most recently approved by the NRC be used when it does not approve the use of a later Code provision. Since the NRC has not approved the elimination of the pressure and temperature hold times in 1995 Addenda of IWA–5213, the NRC proposed to require the use of the pressure and temperature provisions in the 1995 Edition. The NRC agrees with the commenters that the changes in the 1989 Addenda through the 1995 Edition in conjunction with the proposed modification would create unintended test conditions. For example, some systems are not designed to operate at test conditions for the period of time necessary to meet the hold time conditions. Also, hold times are not necessary for leakage tests of Class 1 components because these leakage tests are normally performed following each refueling outage as the reactor is heating up. The heatup process of the reactor is performed within the pressure-temperature constraints of the heatup curve in the plant technical specifications. These constraints limit the rate of temperature and pressure increase resulting in a heatup period of several hours. In light of the substantial length of time required for the reactor heatup process, sufficient time is available for leakage from the Class 1 system to collect in sufficient quantity to be detectable by visual examination. Holding the Class 1 components for additional time at this temperature and pressure is unnecessary to accomplish the purpose of the pressure test.

In consideration of the public comments, the NRC has revised the pressure and temperature hold time requirements in § 50.55a(b)(2)(xx) to be consistent with the revisions recommended in several of the public comments (to use the provisions contained in the 1989 Edition of the ASME Code). This is also consistent with the current ASME proposed revision to the pressure and temperature hold times in IWA–5213. Section 50.55a(b)(2)(xx) requires a 10-minute holding time after attaining test pressure for Class 2 and Class 3 components that do not normally operate during operation, and no holding time is required for the remaining Class 2 and Class 3 components provided that system has been in operation for at least 4 hours for insulated components or 10 minutes for uninsulated components.

2.2.8 Table IWB–2500–1 Examination Requirements

Section 50.55a(b)(2)(xxi)(A) in the proposed rule would require licensees to use the provisions in the 1998 Edition of Table IWB–2500–1, Examination Category B–D, for Items B3.40 and B3.60 (Inspection Program A) and Items B3.120 and B3.140 (Inspection Program B) when using the 1999 Addenda and the 2000 Addenda. The 1999 Addenda eliminated the pressurizer and steam generator (SG) nozzle inside-radius inspections in Table IWB–2500–1, Examination Category B–D, Items B3.40 and B3.60 (Inspection Program A) and Items B3.120 and B3.140 (Inspection Program B).

Several commenters summarized the results of a white paper developed by the ASME that provides the technical basis for eliminating the pressurizer and SG nozzle inside-radius UT examinations from Table IWB–2500–1. The commenters explained the difficulties associated with performing UT examinations of pressurizer and SG nozzle inside radii. Radiation exposure to personnel who conduct the UT examinations is a significant concern because the pressurizer and SG nozzles are located in very high radiation areas. The geometry and material of the nozzles significantly complicate the UT examination procedure making it difficult to obtain meaningful UT data. The commenters stated that the basis for eliminating the pressurizer and SG nozzle inner radius examinations is that a review of UT and visual examination data from pressurizer and SG nozzle inner radius examinations reveal that no service-induced flaws were detected in any of the examinations performed. Commenters claimed that pressurizer and SG nozzle cracking incidents have not occurred at any nuclear facilities, and that structural integrity evaluations of the nozzles indicate that leakage would occur from a through-wall flaw before any integrity problems would occur (*ie.,* the nozzle would leak before it failed). In addition, a risk assessment indicated that the failure probability of the nozzles is extremely low under plant operating conditions, and shows that there is no change in risk if pressurizer and SG nozzle inner radius examinations are eliminated. Finally, the commenters stated that the NRC has granted relief from the pressurizer and SG inside-radius UT examination requirements in Table IWB–2500–1 to many licensees because of these concerns associated with occupational exposure and difficulty in obtaining meaningful UT data.

The NRC disagrees. Operating history alone does not provide adequate justification to eliminate examinations of the pressurizer and SG nozzle inside radii because operational experience also has demonstrated that components degrade as they age. Although pressurizer and SG nozzle cracking incidents have not occurred, cracks have been identified in other nozzles such as the feedwater nozzles. Furthermore, a leak-before-break evaluation is not adequate justification to eliminate the examination of the pressurizer and SG nozzle inside radii because the primary purpose of the ISI requirements in Section XI is to identify and correct component degradation before it becomes significant. Leakage from any pressurizer or SG nozzle would be significant because such leakage would represent an unisolable breach of the reactor coolant pressure boundary.

The NRC agrees that a number of licensees have requested relief from the UT examination requirements for SG nozzle inner radii and pressurizer nozzle inner radii. In these cases, the NRC has authorized, as an alternative to UT examination, the performance of a visual examination which utilizes equipment with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack. The flaw length acceptance criteria specified for the UT examination in Table IWB–3512–1 is applicable to the visual examination. The primary degradation mode for these nozzles is fatigue which produces hairline surface indications that network along the circumference of the nozzle at the inner radius section. Ultrasonic examination of the inner radii from the outside surface should detect these indications. However, even with the use of improved technology from the outside surface, the complex geometry of these nozzle inner radius sections prevents complete coverage. Visual examination for some of these nozzles from the inside surface is easier and less costly to accomplish, and coverage is more complete. The examinations can be performed when the pressurizer and SG are opened for other maintenance or inspection activities. Use of video equipment with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack is similar to UT examination regarding the capability of detecting fatigue-type cracks on nozzle inside radii before they become detrimental to structural integrity.

Therefore, § 50.55a(b)(2)(xxi)(A) is revised to allow the option of performing a visual examination with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack, utilizing the allowable flaw length criteria of Table IWB–3512–1 in place of a UT examination. Section 50.55a(b)(2)(xxi)(A) requires that licensees use the provisions of Table IWB–2500–1, Examination Category B–D, Items B3.40 and B3.60 (Inspection Program A) and Items B3.120 and B3.140 (Inspection Program B) of the 1998 Edition when using the 1999 Addenda and the 2000 Addenda. A visual examination with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack, utilizing the allowable flaw length criteria in the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Table IWB–3512–1 may be performed in place of a UT examination.

Section 50.55a(b)(2)(xxi)(B) in the proposed rule would require that licensees apply the provisions in the 1995 Edition of Table IWB–2500–1, Examination Category B–G–2, Item B7.80 when using the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda. The 1995 Edition and earlier editions and addenda of Section XI require a visual examination of control rod drive (CRD) housing bolting using the VT–1 visual examination method whenever the CRD housing is disassembled. The requirement to examine CRD bolting whenever the CRD housing is disassembled was deleted in the 1995 Addenda.

Several commenters stated that § 50.55a(b)(2)(xxi)(B) should be deleted because the skill of the craft and maintenance practices are sufficient to ensure that bolting is not damaged during maintenance activities. The NRC agrees that the scope of Section XI does not normally include examinations that are conducted during routine maintenance activities, but notes there may be maintenance-related activities associated with ISI. The ISI of components to verify that service-related degradation is not occurring is within the scope of Section XI.

The majority of the commenters stated that no degradation of CRD bolting has occurred in 30 years of experience, and hence the requirement to examine the CRD bolting should be eliminated. The NRC disagrees. Operating history alone does not provide adequate justification to eliminate examinations of CRD bolting because operational experience also has demonstrated that components degrade as they age. Furthermore, the NRC is aware of an example where CRD bolting was replaced in two units because examination of CRD bolting identified cracks.

Several commenters stated that the NRC is misinterpreting the ASME Code because Item B7.80 of Table IWB–B7.80 does not require that the CRD housing be disassembled to perform the examination of CRD bolting. The NRC notes that although the Code does not require disassembly of the CRD housing to examine the bolting, Item B7.80 of Table IWB–2500–1 in the 1995 Edition and earlier editions and addenda of Section XI states that the extent and frequency of the examination is to include bolts, studs, and nuts in CRD housings when disassembled. The NRC finds that the 1995 Edition and earlier editions and addenda of Section XI only require that CRD bolting be examined when the CRD housing is disassembled

such as during a repair or maintenance activity.

Several other commenters stated that since CRD mechanisms are usually contaminated and in high radiation areas, elimination of the bolting examinations reduces radiation exposure to personnel. The NRC notes that CRD bolting is normally relocated to a storage area after disassembly of the CRD housing. Therefore, VT–1 examination personnel typically examine the bolting when it is removed and remotely located from the CRD mechanism, reducing the exposure to individuals.

One commenter requested that the NRC revise § 50.55a(b)(2)(xxi)(B) to include a statement that only CRD bolting that is reused is required to be examined. It was the NRC's intent to require examination of the CRD bolting material only if it was to be reused. Therefore, § 50.55a(b)(2)(xxi)(B) is revised to clarify that only CRD bolting that is reused must be re-examined.

Section 50.55a(b)(2)(xxi)(C) in the proposed rule would require that licensees use the provisions in the 1995 Addenda of Table IWB–2500–1, Examination Category B–K, Item B10.10, when using the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda for the examination of welded attachments to pressure vessels. The 1997 Addenda permits performance of a single-side surface examination in place of a surface examination from both sides of the weld, whereas the 1995 Addenda requires the performance of a single-side volumetric examination of the weld in place of surface examination of the inaccessible surface if surface examination from both sides of the weld is not performed.

Several commenters noted that volumetric examination of reactor pressure vessel (RPV) skirt welds is not practical because UT calibration blocks were typically not supplied for RPV skirt welds and the UT performance demonstration requirements of Appendix VIII do not address RPV support attachment welds. If a licensee wanted to perform a volumetric examination in place of surface examination of both surfaces, it would have to fabricate its own calibration blocks and sample specimens, develop its own procedures, and set up its own demonstration program.

The NRC recognizes that UT examination of RPV skirt welds is not addressed in Appendix VIII at this time. However, the applicable examination requirements are addressed in Article I–2000 of Section XI which in turn references Section V of the ASME BPV Code. Furthermore, Section V of the ASME BPV Code addresses the qualification and use of suitable alternative calibration blocks.

Commenters stated that access under the RPV bottom head for performing a visual examination is a confined space that is also a high radiation area. The inside surface geometry is such that preparation for a surface examination is difficult, thus extending the time spent in the high radiation area. The commenters conclude that the radiation exposure to personnel who examine the inside surface of the RPV skirt weld is not justified. The NRC agrees that access to such confined spaces is very difficult. However, the NRC also believes that the 1995 Addenda of the ASME Code, which already provides for an alternative UT examination in place of a surface examination of the inaccessible surface, appropriately accommodates the commenters concerns. These UT examinations are performed on the accessible surface of the RPV skirt welds. Therefore, personnel are not required to enter the confined space area under the RPV bottom head.

Commenters also stated that RPV skirt weld materials are very flaw-tolerant, with slow flaw-propagation rates. Flaws originating on the inside surface would grow through-wall long before their length would threaten the structural integrity/function of the weld. The NRC notes that the assumption that flaws will be detected before affecting structural integrity is an assumption based on limited surface examination experience and is not supported by rigorous study. The commenters have not presented any analyses or studies which support such an assumption.

Commenters stated that RPV skirt welds are similar to non-pressure boundary core shroud circumferential welds in boiling water reactors. The commenters also stated that safety analyses performed by the Boiling Water Reactor Vessel & Internals Program found that core shroud circumferential welds could be cracked through-wall for 360° and still perform their function. The NRC considers the inference that the structural performance, response, and safety implications of operating with a significantly cracked RPV skirt weld is no different than operating with significantly cracked core shroud circumferential welds to be inappropriate. Operation with cracked core shroud welds has been extensively evaluated for all operating and accident loading conditions. The core shroud is contained within the confines of the reactor pressure vessel with positive restraints holding it in place to assure integrity and adequate coolant flow through the core. However, operation with a significantly cracked RPV skirt weld has not been evaluated. Therefore, the NRC has no basis to conclude that operation under such conditions is acceptable. Commenters also claim that the excellent service history of RPV skirt welds demonstrates that inside surface examinations of welds is not warranted. The NRC considers that operating history alone does not provide adequate justification to eliminate examinations of components because operational experience has also demonstrated that components degrade as they age. Therefore, § 50.55a(b)(2)(xxi)(C) in the proposed rule is adopted without change.

2.2.9 Supplemental Annual Training Requirements for Ultrasonic Examiners

Section 50.55a(b)(2)(xxii) in the proposed rule would require licensees to apply the UT examiner supplemental annual training provisions in the 1998 Edition of Paragraph VII–4240 of Appendix VII, in place of the revised provisions in the 1999 Addenda and 2000 Addenda of VII–4240.

Several commenters stated that the NRC position on training requirements for UT examiners in § 50.55a(b)(2)(xxii) of the proposed rule is inconsistent with the NRC position on training requirements for UT examiners in final rule 64 FR 51370 (September 22, 1999). The commenters noted that the final rule imposed § 50.55a(b)(2)(xiv) because the 10-hour classroom training requirement in VII–4240 was inadequate. The commenters stated that Code Case N–583, ''Annual Training Alternative,'' was developed by the ASME to specifically address the NRC concern with the 10-hour classroom training requirement in the 1995 Edition and 1996 Addenda of VII–4240. Code Case N–583 was incorporated into the 1999 Addenda of VII–4240, replacing the 10-hour classroom training requirement with an 8-hour training requirement to analyze data from material or welds containing flaws similar to those that may be encountered during UT examinations. The commenters stated that the revised training requirements in the 1999 Addenda of VII–4240 are an improvement over the training requirements in the 1998 Edition and earlier editions and addenda of VII–4240. The revised training requirements provide specific criteria that result in uniform training programs among all licensees.

The commenters have clarified to the NRC that the training requirements in the 1999 Addenda and 2000 Addenda of VII–4240 specify hands on training in

place of classroom training. Therefore, § 50.55a(b)(2)(xxii) in the proposed rule is not adopted because after further clarification, the NRC finds that the training requirements in 1999 Addenda and 2000 Addenda of VII–4240 are consistent with the NRC position on training requirements for UT examiners in final rule 64 FR 51370 (September 22, 1999).

Commenters requested that licensees be allowed to substitute the supplemental practice in the 1999 Addenda and 2000 Addenda of VII–4240 for the existing hands-on training requirement in § 50.55a(b)(2)(xiv). The NRC finds that the supplemental practice as described in VII–4240 of Supplement VII of Section XI, 1999 Addenda and 2000 Addenda, is an acceptable alternative to the existing hands-on training requirement in § 50.55a(b)(2)(xiv) provided that the supplemental practice is performed on material or welds that contain cracks, or by analyzing prerecorded data from material or welds that contain cracks. Therefore, § 50.55a(b)(2)(xiv) is revised to allow the option of performing the supplemental practice as described in VII–4240 of Supplement VII of Section XI, 1999 Addenda and 2000 Addenda, or the existing hands-on training requirement.

2.2.10 Underwater Welding

Section 50.55a(b)(2)(xxiii) in the proposed rule would require licensees to demonstrate the acceptability of the underwater welding method through the use of a mockup using material with similar neutron fluence levels, when welding irradiated material underwater in accordance with the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–4660.

Several commenters stated that the use of a mockup to demonstrate the acceptability of an underwater welding method is impractical due to unavailability of materials with similar neutron fluence levels, personnel exposure, high-cost of mockups, and handling and disposal requirements. The commenters also stated that the industry is currently developing an acceptable underwater welding technique for irradiated materials in conjunction with the Boiling Water Reactor Vessel & Internals Project that will be submitted to the NRC for approval.

The NRC proposed the use of a mockup because underwater weld repairs using conventional welding techniques on in-vessel components exposed to high neutron fluences may be unsuccessful due to helium-induced cracking and radiation damage, unless special welding techniques are used. The NRC has revised the proposed underwater welding mockup requirement because of the impracticality of developing and using a mockup with similar neutron fluence levels. Section 50.55a(b)(2)(xxiii) is revised to prohibit the use of the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–4660 to weld irradiated material underwater. Licensees must obtain NRC approval in accordance with § 50.55a(a)(3) of the technique used to weld irradiated material underwater. Section 50.55a(b)(2)(xxiii) of the proposed rule is presented here in the final rule as § 50.55a(b)(2)(xii).

2.3 Appendix VIII to Section XI

This final rule extends the applicability of the existing regulations in § 50.55a(b)(2)(xv) to the 1997 Addenda, the 1998 Edition, 1999 Addenda, and 2000 Addenda of Appendix VIII of Section XI of the ASME BPV Code.

2.3.1 Examination Coverage for Dissimilar Metal Pipe Welds

The existing requirements in § 50.55a(g)(6)(ii)(C)(1) state that Supplement 10, ''Qualification Requirements for Dissimilar Metal Piping Welds,'' of Appendix VIII to Section XI must be implemented by November 22, 2002. Therefore, the proposed rule would have updated § 50.55a(b)(2)(xv)(A) to reference Supplement 10. Specifically, the proposed rule would revise §§ 50.55a(b)(2)(xv)(A)(*1*) and (A)(*2*) to provide UT examination coverage criteria for dissimilar metal piping welds. Examination coverage criteria for dissimilar metal piping welds are specified in the 1989 Edition and earlier editions and addenda of Appendix III of Section XI. Appendix VIII was added in the 1989 Addenda of Section XI, and Section XI would require that the UT examination criteria for piping welds in Appendix VIII supercede the examination criteria in Appendix III. Although Appendix VIII addresses qualification of personnel, procedures, and equipment used to conduct UT examinations of dissimilar metal piping welds, Appendix VIII (unlike Appendix III) does not address UT examination coverage criteria for dissimilar metal piping welds.

The commenters agreed that §§ 50.55a(b)(2)(xv)(A), (A)(*1*) and (A)(*2*) should be revised to provide UT examination coverage criteria for dissimilar metal piping welds. However, the commenters did not agree with the examination coverage criteria in § 50.55a(b)(2)(xv)(A)(*2*) of the proposed rule requiring that dissimilar metal welds be examined from the austenitic side of the weld when examination from both sides is not possible. The commenters stated that § 50.55a(b)(2)(xv)(A)(*2*) should be revised to allow coverage from either the austenitic or ferritic side of the weld when UT examination from both sides is not possible because the composition of the base material is of minor consequence when compared to the effects of the austenitic weld material. Furthermore, the commenters argued that the examination should be conducted from the side of the weld that is most accessible.

The NRC does not agree that the composition of the base material is of minor consequence when compared to the effects of austenitic weld material. There is a higher probability and reliability of identifying flaws in dissimilar metal welds when using a UT procedure qualified to perform examinations from the austenitic side than when using a UT procedure qualified to perform examinations from the ferritic side. Therefore, coverage from the austenitic side of the weld is preferred when UT examination from both sides is not possible.

Sections 50.55a(b)(2)(xv)(A) and (A)(*1*) in the proposed rule are adopted without change. Section 50.55a(b)(2)(xv)(A)(*2*) is revised to clarify that dissimilar metal weld qualifications must be demonstrated from the austenitic side of the weld, and that the examination from the austenitic side of the weld may be used to perform examinations from either side of the weld.

2.3.2 Reactor Vessel Single Side Examinations

The proposed rule would remove the existing § 50.55a(b)(2)(xv)(G)(*4*) because the examination criteria are redundant with the examination criteria contained in § 50.55a(b)(2)(xv)(G)(*3*) and, therefore unnecessary. Both §§ 50.55a(b)(2)(xv)(G)(*3*) and (*4*) allow credit for the full volume when the examination volume is covered from a perpendicular and parallel direction. There were no public comments on the proposed revision; therefore, § 50.55a(b)(2)(xv)(G)(*4*) is removed.

2.3.3 Qualification Test Samples

The revision to § 50.55a(b)(2)(xv)(K)(*1*)(*i*) in the proposed rule would resolve a discrepancy between the existing §§ 50.55a(b)(2)(xv)(K)(*1*)(*i*) and 50.55a(b)(2)(xv)(K)(*4*). Currently, § 50.55a(b)(2)(xv)(K)(*1*)(*i*) states that

flaws which are perpendicular to the weld are not required to be included in the qualification test sample. This requirement conflicts with a provision in § 50.55a(b)(2)(xv)(K)(*4*), which states that test samples must contain flaws that are perpendicular to the weld in the inner 15 percent of the weld, but that these same flaws are not required to be located in the outer 85 percent of the weld. There were no public comments on the proposed revision; therefore, the revision to § 50.55a(b)(2)(xv)(K)(*1*)(*i*) is adopted without change.

2.3.4 Implementation of Appendix VIII to Section XI

Section 50.55a(b)(2)(xv)(M) in the proposed rule would clarify that only those provisions in Supplement 12 to Appendix VIII that relate to the coordinated implementation of Supplement 3 to Supplement 2 performance demonstrations must be implemented. Supplement 12 provides coordinated implementation provisions for the performance demonstrations in Supplements 2, 3, 10, and 11 of Appendix VIII; however, with the exception of the coordinated implementation of Supplement 3 to Supplement 2 performance demonstration, the other coordinated implementation provisions in Supplement 12 are incomplete. Supplement 12 does not provide provisions for implementing single-side examinations as part of the coordinating process, or provide provisions for the coordinated implementation of Supplement 2 or Supplement 11 performance demonstrations to Supplements 3 and 10. There were no public comments on the proposed § 50.55a(b)(2)(xv)(M); therefore, § 50.55a(b)(2)(xv)(M) is adopted without change.

Section 50.55a(g)(6)(ii)(C)(*1*) in the proposed rule would clarify that Appendix VIII to Section XI, 1995 Edition with the 1996 Addenda, as well as its supplements, are mandatory and must be implemented. Although the final rule that implemented Appendix VIII (64 FR 51370; September 22, 1999) requires a phased implementation of Appendix VIII over a 3-year period, the final rule addressed the implementation of the Appendix VIII supplements only and failed to mention the implementation of Appendix VIII itself. The failure to address the implementation of Appendix VIII was an oversight. Section 50.55a(g)(6)(ii)(C)(*1*) in the proposed rule would also eliminate Supplements 12 and 13 of Appendix VIII from the implementation schedule that is currently in § 50.55a(g)(6)(ii)(C)(*1*). Supplements 12 and 13 coordinate the implementation of selected aspects of Supplements 2, 3, 4, 5, 6, 7, 10, and 11 of Appendix VIII. Since the implementation schedule for Supplements 2, 3, 4, 5, 6, 7, 10, and 11 of Appendix VIII is addressed in § 50.55a(g)(6)(ii)(C)(*1*), the imposition of a mandatory implementation date for Supplements 12 and 13 is redundant. There were no public comments on either of the proposed revisions; therefore, the revisions to § 50.55a(g)(6)(ii)(C)(*1*) are adopted without change.

Section 50.55a(g)(6)(ii)(C)(*2*) in the proposed rule would clarify that the requirements of Appendix VIII and the supplements to Appendix VIII to Section XI, of the 1995 Edition with the 1996 Addenda are mandatory when implementing the 1989 Edition and earlier editions and addenda of IWA–2232 of Section XI. Paragraph IWA–2232 provides rules for conducting UT examinations. Appendix VIII was introduced into Section XI in the 1989 Addenda. Before that time, Appendix VIII did not exist in Section XI. Therefore, the 1989 Edition and earlier editions and addenda of IWA–2232 do not reference Appendix VIII. It is not clear to some licensees that they are required to perform UT examinations using personnel, procedures, and equipment qualified in accordance with Appendix VIII. The NRC believes that the final rule dated September 22, 1999 (64 FR 51370), by imposing an expedited implementation of the supplements to Appendix VIII to Section XI, 1995 Edition with the 1996 Addenda, makes it clear that all licensees are required to implement the provisions of Appendix VIII, including those licensees implementing the 1989 Edition or earlier editions and addenda of IWA–2232.

A commenter pointed out that § 50.55a(g)(6)(ii)(C)(*2*) in the proposed rule is inconsistent with the statement of considerations for the proposed rule. The NRC agrees. The purpose of § 50.55a(g)(6)(ii)(C)(*2*) in the proposed rule was to clarify the relationship between the 1989 Edition and earlier editions and addenda of IWA–2232 of Section XI, and Appendix VIII of Section XI. However, in making this clarification, the NRC inadvertently worded § 50.55a(g)(6)(ii)(C)(*2*) such that licensees would be required to update their Appendix VIII program to the latest edition and addenda of Section XI incorporated by reference in § 50.55a(b)(2) following every update. It was not the intent of the NRC to revise the existing 120-month inspection interval update requirement. Therefore, § 50.55a(g)(6)(ii)(C)(*2*) is revised to clarify that licensees implementing the 1989 Edition and earlier editions and addenda of IWA–2232 of Section XI must implement the 1995 Edition with the 1996 Addenda of Appendix VIII of Section XI.

2.4 ASME OM Code

The final rule revises § 50.55a(b)(3) to incorporate by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME OM Code, and extends the applicability of the existing regulations in §§ 50.55a(b)(3)(ii), 50.55a(b)(3)(iii), 50.55a(b)(3)(iv), and 50.55a(b)(3)(v) to the 1997 Addenda, 1998 Edition, 1999 Addenda, and the 2000 Addenda of the ASME OM Code. Subsections of the ASME OM Code were renumbered in the 1998 Edition; therefore, §§ 50.55a(b)(3)(ii), 50.55a(b)(3)(iii), and 50.55a(b)(3)(iv) are revised and § 50.55a(b)(3)(iv)(D) is added to account for the renumbering.

Although the technical requirements in § 50.55a(b)(3)(ii) were not revised in the proposed rule, several commenters stated that the reference to motor-operated valve (MOV) stroke-time testing in the existing § 50.55a(b)(3)(ii) is confusing because there are other MOV test requirements in the ASME OM Code (such as position indication and seat leakage testing) that are applicable in addition to stroke-time testing. The commenters suggested that a licensee might incorrectly interpret § 50.55a(b)(3)(ii) as requiring that only MOV stroke-time testing be performed in accordance with the OM Code. The NRC believes the current regulation clearly states that licensees must meet all of the ASME Code provisions for testing MOVs. The NRC is not aware of any misunderstanding among licensees regarding the intent of the regulatory requirement for MOVs. However, to avoid any potential confusion in the future, § 50.55a(b)(3)(ii) is revised to clarify that licensees must comply with the provisions of the ASME OM ISTC Code for testing MOVs.

Section 50.55a(b)(3)(vi) in the proposed rule would require an exercise interval of 2 years for manual valves within the scope of the ASME OM Code rather than the exercise interval of 5 years specified in the 1999 Addenda and the 2000 Addenda of the ASME OM Code. The 1998 Edition of the ASME OM Code specified an exercise interval of 3 months for manual valves within the scope of the Code. The 1999 Addenda to the ASME OM Code revised ISTC–3540 to extend the exercise frequency for manual valves to 5 years.

A number of commenters stated that § 50.55a(b)(3)(vi) in the proposed rule should be withdrawn because sufficient justification exists to allow the extension of the exercise interval for manual valves to 5 years. The justification for the 5-year frequency is the simplicity of manual valves (limited number of failure causes) and that the ASME OM Code allows other valves (safety and relief valves) to be tested on a 5-year or longer frequencies.

The NRC does not agree that there is sufficient justification to extend the exercise interval for manual valves to 5 years. The NRC review of licensee IST programs indicate that manual valves are exercised every 3 months except in instances where it is impractical to operate valves during unit operation. Valves are then exercised when the unit is in a cold shutdown condition, and the exercise frequency cannot exceed 2 years. Therefore, a 2-year interval for exercising manual valves is justified because the available manual valve exercise data supports the 2-year interval. The NRC has approved longer test intervals for other types of valves in the ASME OM Code but the longer test intervals include additional means to determine component degradation. For example, although the ASME OM Code test strategy for Class 2 and 3 relief valves has a testing interval of 10 years, Class 2 and 3 relief valves are subject to grouping and sample expansion if there is a test failure. Manual valves that are required to be exercised are not subject to grouping and sample expansion. Furthermore, obstruction from silting or blockage, or corrosion of valve internals are possible failure modes for safety-related manual valves that are not applicable to other types of valves with longer test intervals. Exercising manual valves minimizes both of these failure modes and also allows for more immediate detection if an obstruction or corrosion induced failure occurs. Section 50.55a(b)(3)(vi) is revised to clarify that the interval for exercising manual valves may not exceed 2 years when using the 1999 Addenda and 2000 Addenda of ISTC–3540. Licensees are not prohibited from exercising manual valves more frequently than every 2 years.

3. Section-by-Section Analysis of Substantive Changes

Paragraph (b)(1). This paragraph incorporates by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section III, Division 1, of the ASME BPV Code. New applicants for a nuclear power plant submitting an application for a construction permit under 10 CFR 50 or design certification under 10 CFR 52 are required to use the 1998 Edition up to and including the 2000 Addenda for the design and construction of the reactor coolant pressure boundary and Quality Group B and C components.

Paragraph (b)(1)(ii). This paragraph extends the applicability of the existing regulation on weld leg dimension requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section III of the ASME BPV Code. Applicants and licensees using these Edition and Addenda are not allowed to apply paragraph NB–3683.4(c)(1), Footnote 11 to Figure NC–3673.2(b)–1, and Figure ND–3673.2(b)–1.

Paragraph (b)(1)(iii). This paragraph extends the applicability of the existing regulation on seismic design requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section III of the ASME BPV Code. Applicants and licensees using these edition and addenda are not allowed to use Articles NB–3200, NB–3600, NC–3600, and ND–3600.

Paragraph (b)(1)(v). This paragraph extends the applicability of the existing regulation on independence of inspection requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section III of the ASME BPV Code. Applicants and licensees using these edition and addenda are not allowed to apply Sub-subparagraph NCA–4134.10(a).

Paragraph (b)(2). This paragraph incorporates by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI, Division 1, of the ASME BPV Code. Licensees of nuclear power plants are required to use the 1998 Edition up to and including the 2000 Addenda when updating their ISI programs in their subsequent 120-month interval under § 50.55a(g)(4)(ii).

Paragraph (b)(2)(vi). This paragraph clarifies that either the 1992 Edition with the 1992 Addenda or the 1995 Edition with the 1996 Addenda of Subsection IWE and Subsection IWL as modified and supplemented by the requirements in § 50.55a(b)(2)(viii) and § 50.55a(b)(2)(ix) must be used when implementing the initial 120-month inspection interval for the containment inservice inspection requirements. Successive 120-month interval updates must be implemented in accordance with § 50.55a(g)(4)(ii).

Paragraph (b)(2)(viii). This paragraph extends the applicability of the existing regulation in paragraph (b)(2)(viii)(E) on concrete containment examination requirements to the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWL, and clarifies that the new modification in paragraph (b)(2)(viii)(F) applies only to the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWL.

Paragraph (b)(2)(viii)(F). This paragraph requires that personnel who perform visual inspections of containment surfaces and tendon anchorage hardware, wires, or strands be qualified in accordance with IWA–2300 in place of the ''owner-defined'' personnel qualification provision in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWL–2310(d).

Paragraph (b)(2)(ix). This paragraph clarifies that the existing modifications in paragraphs (b)(2)(ix)(A) through (E) of this section on examination of metal containments and liners of Class CC components apply to the 1992 Edition with the 1992 Addenda or the 1995 Edition with the 1996 Addenda of IWE. It also extends the applicability of the regulations in paragraphs (b)(2)(ix)(A) and (b)(2)(ix)(B) to the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE, and clarifies that the new modifications in paragraphs (b)(2)(ix)(F) through (I) apply only to the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE.

Paragraph (b)(2)(ix)(F). This paragraph requires that VT–1 and VT–3 examinations of containment surfaces be conducted in accordance with IWA–2200, and that personnel who perform visual inspections of containment surfaces be qualified in accordance with IWA–2300 in place of the ''owner-defined'' examination and personnel qualification provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE.

Paragraph (b)(2)(ix)(G). This paragraph requires that the VT–3 examination method be used to conduct the examinations in Items E1.12 and E1.20 in the 1998 Edition, 1999 Addenda, and 2000 Addenda of Table IWE–2500–1 in place of the ''owner-defined'' general visual examination provisions; the VT–1 examination method be used to conduct the examination in Item E4.11 of Table IWE–2500–1 in place of ''owner-defined'' detailed visual examinations; and an examination of the pressure-retaining bolted connections in Item E1.11 of Table IWE–2500–1 using the VT–3 examination method must be conducted once each interval.

Paragraph (b)(2)(ix)(H). This paragraph supplements the examination requirements for containment bolted connections that are in Item E1.11 of the 1998 Edition, 1999 Addenda, and 2000 Addenda of Table IWE–2500–1. Containment bolted connections that are disassembled during the scheduled

performance of the examinations in Item E1.11 of Table IWE–2500–1 must be examined using the VT–3 examination method. Flaws or degradation identified during the performance of a VT–3 examination must be examined in accordance with the VT–1 examination method. The criteria in the material specification or IWB–3517.1 must be used to evaluate containment bolting flaws or degradation. As an alternative to performing VT–3 examinations of containment bolted connections that are disassembled during the scheduled performance of Item E1.11, VT–3 examinations of containment bolted connections may be conducted whenever containment bolted connections are disassembled for any reason.

Paragraph (b)(2)(ix)(I). This paragraph requires that the UT examination acceptance standard specified in the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–3511.3 for Class MC pressure-retaining components also apply to metallic liners of Class CC pressure-retaining components.

Paragraph (b)(2)(xi). This paragraph extends the applicability of the existing regulation on the use of IWB–1220 to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI of the ASME BPV Code. Licensees using editions and addenda later than the 1989 Addenda of Section XI are prohibited from exempting components from volumetric and surface examination as allowed by IWB–1220.

Paragraph (b)(2)(xii). This paragraph prohibits the use of the irradiated material underwater weld provisions in the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–4660. Licensees must obtain NRC authorization in accordance with § 50.55a(a)(3) of the method used to weld irradiated material underwater.

Paragraph (b)(2)(xiv). This paragraph allows 8 hours of annual practice as described in VII–4240 of Supplement VII of Section XI, 1999 Addenda and 2000 Addenda, to be performed in place of the existing hands-on training requirement in paragraph (b)(2)(xiv), provided that the supplemental practice is performed on material or welds that contain cracks, or by analyzing prerecorded data from material or welds that contain cracks. In either case, training must be completed no earlier than 6 months prior to performing ultrasonic examinations at a licensee's facility.

Paragraph (b)(2)(xv). This paragraph extends the applicability of the existing regulations on Appendix VIII specimen set and qualification requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI of the ASME BPV Code. Licensees choosing to use these modifications are required to apply all the modifications under paragraph (b)(2)(xv) except for those in (b)(2)(xv)(F) which are optional.

Paragraphs (b)(2)(xv)(A), (A)(1), and (A)(2). These paragraphs update the UT examination coverage criteria to include examination coverage criteria for dissimilar metal piping welds when using personnel, procedures and equipment that are qualified in accordance with Supplement 10 of Appendix VII to Section XI. Dissimilar metal welds must be examined axially and circumferentially. Where examination from both sides is not possible on dissimilar metal welds, full coverage credit from a single side may be claimed only after completing a successful single-sided Appendix VIII demonstration using flaws on the opposite side of the weld. Dissimilar metal weld qualifications must be demonstrated from the austenitic side of the weld and may be used to perform examinations from either side of the weld.

Paragraph (b)(2)(xv)(G)(4). Paragraph (b)(2)(xv)(G)(*4*) is removed. This requirement is redundant given the requirement in paragraph (b)(2)(xv)(G)(*3*) and is unnecessary. As a result, this revision involves no substantive change.

Paragraph (b)(2)(xv)(K)(1)(i). This paragraph clarifies that flaws perpendicular to the weld located in the outer eighty-five (85) percent of the weld are not required to be included in the qualification test sample. The revision neither increases nor decreases current requirements, but clarifies conflicting requirements that currently exist.

Paragraph (b)(2)(xv)(M). This paragraph clarifies that only the provisions in Supplement 12 to Appendix VIII that are related to the coordinated implementation of Supplement 3 to Supplement 2 performance demonstrations are required to be implemented.

Paragraph (b)(2)(xvii). This paragraph extends the applicability of the existing regulation on reconciliation of quality requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI of the ASME BPV Code. Licensees using IWA–4200 of this edition and these addenda are required to procure replacement and repair items under its approved quality assurance program required by Appendix B of 10 CFR 50. The limitation does not permit licensees to use IWA–4200 to procure repair and replacement items to be used in ASME Code safety-related applications that are manufactured under a non-nuclear code or non-nuclear standard without an approved quality assurance program.

Paragraph (b)(2)(xviii)(A). This paragraph requires that Level I and II NDE personnel be recertified on a 3-year interval in lieu of the 5-year interval specified in IWA–2314.

Paragraph (b)(2)(xviii)(B). This paragraph requires that IWA–2316 may only be used to qualify personnel that observe for leakage during system leakage and hydrostatic tests conducted in accordance with IWA–5211(a) and (b).

Paragraph (b)(2)(xviii)(C). This paragraph requires that when qualifying VT–3 examination personnel in accordance with IWA–2317, the proficiency of the training must be demonstrated by administering an initial qualification examination and administering subsequent examinations on a 3-year interval.

Paragraph (b)(2)(xix). This paragraph prohibits the use of the provisions in IWA–2240 and IWA–4520(c) which would allow alternative examination methods, a combination of methods, or newly developed techniques to be substituted for the methods specified in the Construction Code during repair and replacement activities.

Paragraph (b)(2)(xx). This paragraph supplements the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–5213(a) to require a 10-minute hold time after attaining test pressure for Class 2 and Class 3 components that are not in use during normal operating conditions, and no hold time for the remaining Class 2 and Class 3 components provided that system has been in operation for at least 4 hours for insulated components or 10 minutes for uninsulated components.

Paragraph (b)(2)(xxi)(A). This paragraph requires that licensees perform pressurizer and steam generator nozzle inside-radius inspections of Table IWB–2500–1, Examination Category B-D, Items B3.40 and B3.60 (Inspection Program A) and Items B3.120 and B3.140 (Inspection Program B) of the 1998 Edition. The 1999 Addenda and the 2000 Addenda of Section XI are not permitted to be used. A visual examination with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack, using the allowable flaw length criteria in Table IWB–3512–1, may be performed in place of a UT examination.

Paragraph (b)(2)(xxi)(B). This paragraph requires that the CRD bolting examinations of Table IWB–2500–1, Examination Category B-G–2, Item

B7.80, of the 1995 Addenda of Section XI be retained only for used CRD bolting in ISI programs when using the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI.

Paragraph (b)(2)(xxi)(C). This paragraph requires that the attachment weld single-side volumetric examination of Table IWB–2500–1, Examination Category B–K, Item B10.10, of the 1995 Addenda of Section XI be retained in ISI programs when using the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI.

Paragraph (b)(3). This paragraph incorporates by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME OM Code. Licensees of nuclear power plants are required to use the 1998 Edition up to and including the 2000 Addenda when updating their inservice testing programs in their subsequent 120-month inspection interval under § 50.55a(f)(4)(ii).

Paragraph (b)(3)(ii). This paragraph extends the applicability of the existing regulations on MOV test requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME OM Code. Licensees using this edition and these addenda are required to establish a program to ensure that MOVs continue to be capable of performing their design basis safety functions. This paragraph clarifies that licensees must comply with the provisions of the ASME OM ISTC Code for testing MOVs, and reconciles the different subsection and paragraph numbers of the ASME OM Code that were renumbered in the 1998 Edition and subsequent editions and addenda.

Paragraph (b)(3)(iii). This paragraph extends the applicability of the existing regulation that permits the use of Code Case OMN–1 in place of stroke time test requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME OM Code, and reconciles those subsections of the ASME OM Code that were renumbered in the 1998 Edition. The modification continues to allow, as a voluntary alternative, the use of Code Case OMN–1 in place of the stroke-time testing requirements of paragraph (b)(3)(ii) when using this edition and these addenda.

Paragraph (b)(3)(iv). This paragraph extends the applicability of the existing regulations in paragraphs (b)(3)(iv)(A), (B), and (C) on check valve condition monitoring requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME OM Code. There are no substantive changes in the requirements. This paragraph also reconciles the different subsection and paragraph numbers of the ASME OM Code that were renumbered in the 1998 Edition and subsequent editions and addenda.

Paragraph (b)(3)(iv)(D). There are no substantive changes to the check valve condition monitoring requirements in ASME OM Code in this paragraph. This paragraph reconciles the different subsection and paragraph numbers of that were renumbered in the 1998 Edition and subsequent editions and addenda.

Paragraph (b)(3)(v). This paragraph extends the applicability of the existing snubber ISI requirements to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME OM Code.

Paragraph (b)(3)(vi). This paragraph requires that manual valves within the scope of the ASME OM Code be exercised on a 2-year interval rather than the 5-year interval specified in the 1999 Addenda and 2000 Addenda of the ASME OM Code, provided that adverse conditions do not require more frequent testing. Paragraph ISTC–3540 of the ASME OM Code describes adverse conditions as harsh service environment, lubricant hardening, corrosive or sediment-laden process fluid, or degraded valve components.

Paragraph (g)(6)(ii)(B). The paragraph removes the containment examination requirements in §§ 50.55a(g)(6)(ii)(B)(*1*) through (*4*) because the implementation dates have expired and all licensees have completed the requirements (or a delay has been approved by an exemption); and redesignates the existing § 50.55a(g)(6)(ii)(B)(*5*) as § 50.55a(g)(6)(ii)(B). Licensees do not have to submit to the NRC staff for approval of their containment inservice inspection programs which were developed to satisfy the requirements of Subsection IWE and Subsection IWL with specified modifications and limitations. The program elements and the required documentation must be maintained on site for audit.

Paragraph (g)(6)(ii)(C)(1). This paragraph clarifies that Appendix VIII to Section XI, 1995 Edition with the 1996 Addenda, as well as its supplements, must be implemented. Supplements 12 and 13 of Appendix VIII are eliminated from the implementation schedule.

Paragraph (g)(6)(ii)(C)(2). This paragraph clarifies the requirements of Appendix VIII and the supplements to Appendix VIII to Section XI. Licensees implementing the 1989 Edition and earlier editions and addenda of IWA–22323 of Section XI must implement the 1995 Edition with the 1996 Addenda of Appendix VIII of Section XI.

4. Generic Aging Lessons Learned Report

In July 2001, the NRC issued, ''Generic Aging Lessons Learned (GALL) Report,'' NUREG–1801, Volumes 1 and 2, for use by applicants in preparing their license renewal applications. The GALL report evaluates existing generic programs, documents the basis for determining when generic existing programs are adequate without change, and documents when generic existing programs should be augmented for license renewal. Section XI, Division 1, of the ASME BPV Code is one of the generic existing programs in the GALL report that is evaluated as an aging management program (AMP) for license renewal. Subsections IWB, IWC, IWD, IWF, IWE, and IWL of the 1995 Edition up to and including the 1996 Addenda of Section XI of the ASME BPV for ISI were evaluated in the GALL report and the conclusions in the GALL report are valid for these edition and addenda.

In the GALL report Sections XI.M1, ''ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD,'' XI.S1, ''ASME Section XI, Subsection IWE,'' XI.S2, ''ASME Section XI, Subsection IWL,'' and XI.S3, ''ASME Section XI, Subsection IWF,'' describe the evaluation and technical basis for determining the adequacy of Subsections IWB, IWC, IWD, IWE, IWL, and IWF, respectively. In addition, many other AMPs in the GALL report rely in part, but to a lesser degree, on the requirements in the ASME Code, Section XI (*i.e.*, XI.M3, XI.M4, XI.M5, XI.M6, XI.M7, XI.M8, XI.M9, XI.M11, XI.M12, XI.M13, XI.M14, XI.M15, XI.M16, XI.M18. XI.M24, XI.M25, and XI.M32). These AMPs were evaluated for 10 specific elements with such attributes as scope of program, preventive actions, parameters monitored/inspected, detection of aging effects, monitoring and trending, acceptance criteria, corrective actions, confirmation process, administrative controls, and operating experience. If an applicant takes credit for a program in GALL, it is incumbent on the applicant to ensure that the plant program contains all the elements of the referenced GALL program. The GALL report contains one acceptable way to manage aging effects for license renewal. An applicant may propose alternatives for NRC review in its plant-specific license renewal application.

The NRC has completed an evaluation of Subsections IWB, IWC, IWD, IWE, IWF, and IWL of Section XI of the ASME BPV Code (1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda) as part of the § 50.55a

amendment process to ensure that the conclusions of the GALL report remain valid. Although some of the revisions in Section XI of the ASME BPV Code relax the provisions of the 1995 Edition with the 1996 Addenda, the revisions are acceptable (except as discussed below) and the conclusions of the GALL report remain valid. Accordingly, an applicant may use Subsections IWB, IWC, IWD, IWE, IWF, and IWL of Section XI of the ASME BPV Code (1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda) as acceptable alternatives to the requirements of the 1995 Edition up to and including the 1996 Addenda of the ASME Code, Section XI, referenced in the GALL AMPs without the need to submit these alternatives for NRC review in its plant-specific license renewal application. Similarly, a licensee approved for license renewal that relied on the GALL AMPs may use Subsections IWB, IWC, IWD, IWE, IWF, and IWL of Section XI of the ASME BPV Code (1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda) as acceptable alternatives to the AMPs described in the GALL report.

Several of the revisions to Subsections IWB, IWE, and IWL that are discussed in the preceding Section 2, Public Comments on Proposed Rule; and Final Rule, might affect the validity of the conclusions in the GALL report because provisions in the 1995 Edition up to and including the 1996 Addenda that address examination requirements and acceptance standards have been relaxed or eliminated in the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda. The new limitations and modifications in § 50.55a(b) require that the revised provisions be supplemented with additional inspection requirements as a condition for their use. The conclusions of the GALL report remain valid for the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI of the ASME BPV Code with the use of these new limitations and modifications as discussed in this final rulemaking. However, it should be noted that the NRC is imposing these limitations and modifications to ensure consistency and an acceptable level of safety in the examination requirements and acceptance standards, and not solely to validate the conclusions in the GALL report.

The GALL report identified areas of the 1995 Edition with the 1996 Addenda of Section XI of the ASME Code that require augmentation for license renewal. A license renewal applicant may either augment their AMPS in these areas as described in the GALL report, or propose alternatives for NRC review in its plant-specific license renewal application. The GALL report's conclusions with respect to augmentation in connection with a license renewal application also apply when implementing the 1998 Edition, 1999 Addenda, and 2000 Addenda of Section XI of the ASME Code.

5. Availability of Documents

The NRC is making the documents identified below available to interested persons through one or more of the following methods as indicated.

Public Document Room (PDR). The NRC Public Document Room is located at 11555 Rockville Pike, Rockville, Maryland.

Rulemaking Website (Web). The NRC's interactive rulemaking Website is located at *http://ruleforum.llnl.gov.* These documents may be viewed and downloaded electronically via this Website.

NRC's Public Electronic Reading Room (PERR). The NRC's public electronic reading room is located at *http://www.nrc.gov/reading-rm/adams.html.*

NRC Staff Contact. Single copies of the **Federal Register** Notice, Regulatory Analysis, Environmental Assessment, and Resolution of Public Comments be obtained from Stephen Tingen, Division of Engineering, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001. Alternatively, you may contact Mr. Tingen at (301) 415–1280, or via e-mail at: *sgt@nrc.gov.*

Document	PDR	Web	PERR	NRC staff
Federal Register Notice	X	X		X
Regulatory Analysis	X	X	ML 022130308	X
Environmental Assessment	X	X	ML 022130316	X
Resolution of Public Comments	X	X	ML 022130320	X
Public Comments	X	X	ML 021480072	X

6. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104–113, requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or is otherwise impractical. In this final rule, the NRC is amending its regulations to incorporate by reference a later edition and addenda of Sections III and XI of the ASME BPV Code and the ASME OM Code, for construction, ISI, and IST of nuclear power plant components, as identified in the preceding Section 2, Public Comments on Proposed Rule; and Final Rule.

A number of commenters stated that the NRC approval of the ASME Code with exceptions (*i.e.*, modifications and limitations) does not meet the spirit of Pub. L. 104–113. The NRC disagrees because although Pub. L. 104–113 requires Federal agencies to use industry consensus standards to the extent practical, it does not require Federal agencies to endorse a standard in its entirety, nor does it forbid Federal agencies from endorsing industry consensus standards with limitations or modifications. The law does not prohibit an agency from generally adopting a voluntary consensus standard while taking exception to specific portions of the standard if those provisions are deemed to be ''inconsistent with applicable law or otherwise impractical.'' Furthermore, taking specific exceptions furthers the Congressional intent of Federal reliance on voluntary consensus standards because it allows the adoption of substantial portions of consensus standards without the need to reject the standards in their entirety because of limited provisions which are not acceptable to the agency. Moreover, there is no legislative history suggesting that Congress intended agencies to take an ''all or nothing'' approach to endorsement of voluntary consensus standards under the Act, and the OMB guidance implementing Pub. L. 104–113 does not address the matter. The discussion in the statement of considerations of the limitations and modifications is sufficient to satisfy the requirements of Section 12(d)(3) of Pub. L. 104–113, and the relevant requirements of OMB Circular A–119 (1998). In light of these factors, the NRC concludes that the explanations for the modifications and limitations to the ASME BPV and OM Codes, as set forth

in the statement of considerations for this final rule, satisfy the requirements of Section 12(d)(3) of Pub. L. 104–113, and OMB Circular A–119.

7. Finding of No Significant Environmental Impact: Availability

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, that this rule is not a major Federal action significantly affecting the quality of the human environment, and, therefore, an environmental impact statement is not required.

This rulemaking will not significantly increase the probability or consequences of accidents; no changes are being made in the types of any effluents that may be released off-site; the environmental assessment for this rule demonstrates that there is a small decrease in occupational exposure; and there is no significant increase in public radiation exposure. Therefore, there are no significant radiological impacts associated with the action. The rulemaking does not involve non-radiological plant effluents and has no other environmental impact. Therefore, no significant non-radiological impacts are associated with the action.

The determination for this rule is that there will be no significant off-site impact to the public from this action. The NRC has prepared an environmental assessment on this final rule. The environmental assessment is available as indicated in Section 5, Availability of Documents, under the Supplementary Information heading.

The NRC requested the views of the States on the environmental assessment for the rule and did not receive any comments from the States.

8. Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). These requirements were approved by the Office of Management and Budget, approval number 3150–0011.

Because the rule will reduce existing information collection requirements, the public burden for these information collections is expected to be decreased by 14 hours per licensee. This reduction includes the time required for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments on any aspect of these information collections, including suggestions for further reducing the burden, to the Records Management Branch (T–6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, or by Internet electronic mail to *infocollects@nrc.gov*; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB–10202 (3150–0011), Office of Management and Budget, Washington, DC 20503.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number

9. Regulatory Analysis

The NRC has prepared a regulatory analysis on this final rule. The analysis examines the costs and benefits of the action considered by the Commission. The regulatory analysis is available as indicated in Section 5, Availability of Documents, under the Supplementary Information heading.

One commenter stated that the regulatory analysis for the proposed amendment failed to address the values and impacts associated with a number of the modifications and limitations in the proposed rule. The NRC notes that the purpose of the regulatory analysis is to identify any significant values and impact associated with updating from the 1995 Edition with the 1996 Addenda to the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of the ASME Code. Therefore, modifications and limitations that require licensees to use the existing Code provisions in the 1995 Edition with the 1996 Addenda of the ASME Code are not addressed in the regulatory analysis.

10. Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission certifies that this rule will not have a significant economic impact on a substantial number of small entities. This final rule affects only the licensing and operation of nuclear power plants. The companies that own these plants do not fall within the scope of the definition of ''small entities'' set forth in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

11. Backfit Analysis

The NRC's Backfit Rule in 10 CFR 50.109 states that the Commission shall require the backfitting of a facility only when it finds the action to be justified under specific standards stated in the rule. Section 50.109(a)(1) defines backfitting as the modification of or addition to systems, structures, components, or design of a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct or operate a facility; any of which may result from a new or amended provision in the Commission rules or the imposition of a regulatory staff position interpreting the Commission rules that is either new or different from a previously applicable staff position after issuance of the construction permit or the operating license or the design approval.

Section 50.55a requires nuclear power plant licensees to construct ASME Boiler and Pressure Vessel Code (BPV Code) Class 1, 2, and 3 components in accordance with the rules provided in Section III, Division 1, of the ASME BPV Code; inspect Class 1, 2, 3, Class MC, and Class CC components in accordance with the rules provided in Section XI, Division 1, of the ASME BPV Code; and test Class 1, 2, and 3 pumps and valves in accordance with the rules provided in the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code). This final rule incorporates by reference the 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda of Section III, Division 1, of the ASME BPV Code; Section XI, Division 1, of the ASME BPV Code; and the ASME OM Code.

Incorporation by reference of later editions and addenda of Section III, Division 1, of the ASME BPV Code is prospective in nature. The later editions and addenda do not affect a plant that has received a construction permit or an operating license or a design that has been approved, because the edition and addenda to be used in constructing a plant are, by rule, determined on the basis of the date of the construction permit, and are not changed thereafter, except voluntarily by the licensee. Thus, incorporation by reference of a later edition and addenda of Section III, Division 1, does not constitute a ''backfitting'' as defined in § 50.109(a)(1).

Incorporation by reference of later editions and addenda of Section XI, Division 1, of the ASME BPV Code and the ASME OM Code affect the ISI and IST programs of operating reactors. However, the Backfit Rule generally does not apply to incorporation by reference of later editions and addenda of the ASME BPV (Section XI) and OM Codes for the following reasons—

(1) The NRC's longstanding policy has been to incorporate later versions of the

ASME Codes into its regulations. This is codified in § 50.55a which requires licensees to revise their ISI and IST programs every 120 months to the latest edition and addenda of Section XI of the ASME BPV Code and the ASME OM Code incorporated by reference into § 50.55a that is in effect 12 months prior to the start of a new 120-month ISI and IST interval. Thus, when the NRC endorses a later version of the Code, it is implementing this longstanding policy and requirement.

(2) ASME BPV and OM Codes are national consensus standards developed by participants with broad and varied interests, in which all interested parties (including the NRC and utilities) participate. This consideration is consistent with both the intent and spirit of the Backfit Rule (i.e., the NRC provides for the protection of the public health and safety, and does not unilaterally imposed undue burden on applicants or licensees).

Other circumstances where the NRC does not apply the Backfit Rule to the endorsement of a later Code are as follows—

(1) When the NRC takes exception to a later ASME BPV or OM Code provision, but merely retains the current existing requirement, prohibits the use of the use of the later Code provision, or limits the use of the later Code provision, the Backfit Rule does not apply because the NRC is not imposing new requirements. However, the NRC explains any such exceptions to the Code in the Statement of Considerations for the rule. Sections 50.55a(b)(2)(viii)(F), (b)(2)(ix)(F), (b)(2)(ix)(G), (b)(2)(ix)(H), (b)(2)(xviii)(A), (B) and (C), (b)(2)(xix), (b)(2)(xxi)(A) and (C) in this final rule either retain current existing requirements, prohibit the use of the later Code provision, or limit the use of the later Code provision.

(2) When an NRC exception relaxes an existing ASME BPV or OM Code provision but does not prohibit a licensee from using the existing Code provision. Section 50.55a(b)(3)(vi) in this final rule relaxes the use of an existing Code provision but does not prohibit a licensee from using the existing Code provision.

There are some circumstances where the NRC considers it appropriate to treat as a backfit the endorsement of a later ASME BPV or OM Code—

(1) When the NRC endorses a later provision of the ASME BPV or OM Code that takes a substantially different direction from the currently existing requirements, the action is treated as a backfit. An example was the NRC's initial endorsement of Subsections IWE and IWL of Section XI, which imposed containment inspection requirements on operating reactors for the first time. The final rule dated August 8, 1996 (61 FR 41303), incorporated by reference in § 50.55a the 1992 Edition with the 1992 Addenda of IWE and IWL of Section XI to require that containments be routinely inspected to detect defects that could compromise a containment's structural integrity. This action expanded the scope of § 50.55a to include components that were not considered by the existing regulations to be within the scope of ISI. Since those requirements involved a substantially different direction, they were treated as backfits, and justified in accordance with the standards of 10 CFR 50.109. There are no provisions similar to this in the final rule.

(2) When the NRC requires implementation of later ASME BPV or OM Code provision on an expedited basis, the action is treated as a backfit. This applies when implementation is required sooner than it would be required if the NRC simply endorsed the Code without any expedited language. An example was the final rule dated September 22, 1999 (64 FR 51370), which incorporated by reference the 1989 Addenda through the 1996 Addenda of Section III and Section XI of the ASME BPV Code, and the 1995 Edition with the 1996 Addenda of the ASME OM Code. The final rule expedited the implementation of the 1995 Edition with the 1996 Addenda of Appendix VIII of Section XI of the ASME BPV Code for qualification of personnel and procedures for performing UT examinations. The expedited implementation of Appendix VIII was considered a backfit because licensees were required to implement the new requirements in Appendix VIII prior to the next 120-month ISI program inspection interval update. Another example was the final rule dated August 6, 1992 (57 FR 34666), which incorporated by reference in § 50.55a the 1986 Addenda through the 1989 Edition of Section III and Section XI of the ASME BPV Code. The final rule added a requirement to expedite the implementation of the revised reactor vessel shell weld examinations in the 1989 Edition of Section XI. Imposing these examinations was considered a backfit because licensees were required to implement the examinations prior to the next 120-month ISI program inspection interval update. There are no provisions similar to this in the final rule.

(3) When the NRC takes an exception to a ASME BPV or OM Code provision and imposes a requirement that is substantially different from the current existing requirement as well as substantially different than the later Code.

In §§ 50.55a(b)(2)(xv)(A), (A)(*1*) and (A)(*2*) that are discussed in the preceding Section 2, Final Rule and Comments on Proposed Rule, the NRC is adopting dissimilar metal piping weld ultrasonic (UT) examination coverage requirements. The NRC concludes that the addition of dissimilar metal piping weld UT examination coverage requirements to the regulation is necessary to correct the omission by the ASME BPV Code to ensure adequate protection of public health and safety. This backfit falls into the ''adequate protection'' exception under 10 CFR 50.109(a)(4)(ii), and the documented evaluation required by 10 CFR 50.109(a)(6) is below. Therefore, a backfit analysis under 10 CFR 50.109(a)(3) is not required.

Documented Evaluation

Dissimilar metal piping weld examination coverage requirements, although contained in the 1989 Edition, and earlier editions and addenda of Appendix III of Section XI of the ASME BPV Code, are not addressed in later editions and addenda of Section XI. Appendix VIII was added in the 1989 Addenda of Section XI, and the UT examination criteria for piping welds in Appendix VIII supercede the examination criteria for piping welds in Appendix III. Although Appendix VIII addresses qualification of personnel, procedures, and equipment used to conduct UT examinations of dissimilar metal piping welds, Appendix VIII (unlike Appendix III) does not define UT examination coverage criteria for dissimilar metal piping welds. Therefore, the addition of dissimilar metal piping weld examination coverage requirements to the regulation is necessary to correct the omission by the ASME BPV Code.

The purpose of ISI is to monitor for degrading conditions and ensure that any flaws which develop during service can be detected, sized, and evaluated, and that components with unacceptable flaws are repaired or replaced to adequately maintain the integrity of the pressure boundary. Another purpose of ISI is to identify any possible generic-type defects that were unforeseen during the design stage so that corrective actions can be taken prior to a breach of the pressure boundary. Although plants have generally been designed with sufficient margin so that important components will not crack or undergo excessive degradation, uncertainties in the definition of

service-induced loads and operating environments may have led to a less than optimum choice of materials, and may have permitted degradation mechanisms to progress more rapidly, or allowed different mechanisms to be active during plant operation, than were foreseen in the design.

Section XI defines inspection criteria for ISI and indicates allowable flaw sizes (with margin) based on fracture mechanics for various locations within reactor coolant pressure boundary (RCPB) components. If a flaw is found that exceeds the allowable size, (1) the component must be repaired, or (2) a safety analysis must be conducted, using fracture mechanics, to show that the flaw will not grow to an extent that could impair the integrity of the component. To conduct reliable and credible safety evaluations using fracture mechanics, information from the UT examination is required regarding the flaw size, shape, orientation, and location within the component. Consequently, examination information is key to detecting flaws and assessing the continued reliability and safety of flawed RCPB components.

Dissimilar metal welds are used to connect RCPB components. Operating history shows serious degradation of RCPB dissimilar metal welds have occurred at several nuclear power plants in the United States and at one foreign nuclear power plant. The NRC believes that additional occurrences are possible. Therefore, comprehensive and technically sound UT examination coverage criteria for dissimilar metal piping welds are needed to ensure that each facility provides adequate protection to the health and safety of the public. Sections 50.55a(b)(2)(xv)(A), (A)(*1*) and (A)(*2*) impose requirements that define comprehensive and technically sound UT examination coverage criteria for dissimilar metal piping welds that ensure uniform examination results among all licensees. These UT examination coverage requirements are necessary to detect flaws in dissimilar metal welds in RCPB components, thereby maintaining an extremely low probability of abnormal leakage or rapidly propagating failure, and gross rupture.

The remaining portion of this section addresses public comments related to backfitting or backfit issues on the proposed rule.

A number of commenters raised a generic concern with regard to the NRC's position on imposing exceptions (*i.e.*, modification or limitation) to consensus standards that are incorporated by reference in the Code of Federal Regulations. The commenters believe that, contrary to the NRC's determination, imposing any modification or limitation to the ASME Code constitutes a backfit for which a backfit analysis is required. Commenters stated that NRC is required to demonstrate that modifications and limitations result in an increase in quality or safety.

The NRC has reviewed the comments and has concluded that the commenters do not raise concerns which would alter the previous conclusion that the Backfit Rule does not require a backfit analysis of the modifications and limitations imposed by the NRC in the final rule. Furthermore, many of the modifications and limitations imposed during previous routine updates of § 50.55a have established a precedence for determining which modifications or limitations are backfits or require a backfit analysis (final rules dated August 6, 1992 (57 FR 34666), August 8, 1996 (61 FR 41303), and September 22, 1999 (64 FR 51370)). The NRC finds that the application of the backfit requirements to modifications and limitations in the current rule are consistent with the application of backfit requirements to modifications and limitations in previous rules. Since the modification and limitations in the current rule are not considered backfits or do not require backfit analyses, the NRC is not required to demonstrate that the new modifications and limitations result in an increase in quality or safety.

Section 50.55a(b)(2)(ix)(F) of the proposed rule would require that personnel who conduct visual examinations of containment surfaces be qualified in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2300 in place of the ''owner-defined'' qualification provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda IWE–2330(a). One commenter stated that the NRC is imposing additional qualification requirements for personnel that conduct general visual examinations in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE that were not imposed on general visual examinations conducted in accordance with earlier editions and addenda of IWE.

The NRC agrees with the commenter. The NRC proposed additional qualification requirements for personnel that conduct general visual examinations. Editions and addenda of IWE earlier than the 1998 Edition required the use of the VT–1 visual inspection method, the VT–3 visual inspection method, and a general visual inspection. The provisions in IWA–2300 were used to define the qualification requirements for personnel that conduct VT–1 and VT–3 visual examinations; however, detailed qualification requirements were not provided in the ASME Code for personnel that conduct general visual examinations. There are significant changes in the visual examination requirements in the 1998 Edition of IWE. Paragraph IWE–2330(a) requires that the licensee define the qualification requirements for personnel that conduct all visual examinations of containment surfaces, and a number of visual examinations are recategorized as general visual examinations that were formerly categorized as VT–1 or VT–3 in earlier editions and addenda of IWE. The intent of § 50.55a(b)(2)(ix)(F) in the proposed rule was not to allow licensees to use ''owner-defined'' qualification requirements to qualify personnel that conduct examinations that were formerly categorized as VT–1 or VT–3. However, the NRC inadvertently worded the modification such that additional qualification requirements would also be imposed on personnel that conduct general visual examinations. Therefore, the qualification requirements for personnel that conduct visual inspections of containment surfaces are revised in the final rule to require that personnel who conduct VT–1 and VT–3 visual examinations of containment surfaces be qualified in accordance with the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2300.

Section 50.55a(b)(2)(ix)(G) in the proposed rule would require that the general visual examinations required by the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–2310(b) and IWE–2310(c) meet VT–3 examination method provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWA–2210 in place of the ''owner-defined'' general and detailed visual examination provisions in the 1998 Edition, 1999 Addenda, and 2000 Addenda of IWE–2310(a).

One commenter stated that it is inappropriate for the NRC to impose § 50.55a(b)(2)(ix)(G) without performing a backfit analysis because the modification increases the frequency of VT–3 examinations of containment surfaces beyond that which was previously required in the editions and addenda of IWE earlier than the 1998 Edition. The commenter is correct. It was not the intent of the NRC to increase the frequency of VT–3 visual examinations of containment surfaces. The NRC inadvertently worded the modification such that the frequency of VT–3 examinations of containment areas was increased. Therefore, § 50.55a(b)(2)(ix)(G) is revised in the

final rule to require that VT–3 visual examinations for certain containment areas be performed once during each 10-year inspection interval which is consistent with the provisions in the editions and addenda of IWE earlier than the 1998 Edition.

Sections 50.55a(b)(2)(ix)(J), (b)(2)(xx), and (b)(2)(xxi)(B) in the proposed rule involve provisions in Section XI that were deleted in the 1995 Addenda that the NRC is reinstating in the final rule (§ 50.55a(b)(2)(ix)(J) of the proposed rule is renumbered as § 50.55a(b)(2)(ix)(I) in the final rule). Section 50.55a(b)(2)(xxiii) of the proposed rule involves underwater welding provisions in Section XI that were added in the 1996 Addenda that the NRC is prohibiting the use of in the final rule (§ 50.55a(b)(2)(xxiii) of the proposed rule is renumbered as § 50.55a(b)(2)(xii) in the final rule).

Several commenters stated that it is inappropriate for the NRC to reinstate or prohibit the use of these Code provisions because the elimination or addition of these Code provisions was previously accepted by the NRC the final rule dated September 22, 1999 (64 FR 51370). The NRC disagrees. These modifications were not included in the final rule that incorporated by reference the 1995 Addenda and 1996 Addenda of Section XI in 10 CFR 50.55a (64 FR 51370) due to an oversight by the NRC. The NRC did not identify that these Code provisions were eliminated or added when it reviewed the 1995 Addenda and 1996 Addenda of Section XI. The NRC has determined that these modifications should only apply to those licensees who implement the 1997 Addenda and later editions and addenda of Section XI, and should not be backfit to those licensees who update their ISI programs to the 1995 Edition with the 1996 Addenda in accordance with 10 CFR 50.55a(g)(4)(ii). The NRC has determined it is acceptable not to backfit the licensees who update their ISI programs to the 1995 Edition with the 1996 Addenda, because those licensees will be required at the next 10-year interval to update their ISI programs to include or prohibit the relevant Code provisions. Thus, any problems would be caught during the next 10-year interval. The reinstatement or prohibition of the relevant Code provisions are not considered backfits, because they are imposed only as part of the routine updating required as part of the 120-month updating, and do not constitute a significant change to, or fundamental modification of the existing ISI program.

Section 50.55a(b)(3)(vi) in the proposed rule would prohibit the extension of the exercise interval for manual valves from 3 months to 5 years when using the 1999 Addenda and 2000 Addenda of ISTC–3540. One commenter stated that the NRC should delete § 50.55a(b)(3)(vi) or conduct a backfitting analysis justifying the imposition of the proposed modification.

The NRC disagrees that a backfit analysis is required for § 50.55a(b)(3)(vi). The intent of the ASME consensus process was to extend the exercise interval for manual valves, and in this case, the NRC is accommodating the ASME consensus process to the extent that the NRC believes the extended exercise interval can be justified (*i.e.*, 2 years). In this case the NRC is allowing a relaxation from the current requirements, but not as much of a relaxation as the later Code would allow. Licensees are free to continue to implement the existing requirement (e.g., testing every three months).

The proposed rule would add a new § 50.55a(g)(6)(ii)(B)(*1*) to clarify the start date of the first 120-month interval for the ISI of Class MC and Class CC components. One commenter noted that since licensees have already established the start date of the first 120-month interval for the ISI of Class MC and Class CC components, it is a backfit for the NRC to now impose a different start date than that already established by licensees. The NRC agrees with this comment. Therefore, § 50.55a(g)(6)(ii)(B)(*1*) in the proposed rule is not adopted.

12. Small Business Regulatory Enforcement Fairness Act

In accordance with the Small Business Regulatory Enforcement Fairness Act of 1996, the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory Affairs of OMB.

List of Subjects in 10 CFR Part 50

Antitrust, Classified information, Criminal penalties, Fire protection, Incorporation by reference, Intergovernmental relations, Nuclear power plants and reactors, Radiation protection, Reactor siting criteria, Reporting and recordkeeping requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR Part 50.

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows:

Authority: Secs 102, 103, 104, 105, 161, 182, 183, 186, 189, 68 Stat. 936, 938, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2132, 2133, 2134, 2135, 2201, 2232, 2233, 2239, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 50.7 also issued under Pub. L. 95–601, sec. 10, 92 Stat. 2951 as amended by Pub L. 102–486, sec. 2902, 106 Stat. 3123 (42 U.S.C. 5851). Section 50.10 also issued under secs. 101, 185, 68 Stat. 936, 955 as amended (42 U.S.C. 2131, 2235), sec. 102, Pub. L. 91–190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.13, 50.54(dd), and 50.103 also issued under sec. 108, 68 Stat. 939, as amended (42 U.S.C. 2138). Sections 50.23, 50.35, 50.55, and 50.56 also issued under sec. 185, 68 Stat. 955 (42 U.S.C. 2235). Sections 50.33a, 50.55a and Appendix Q also issued under sec. 102, Pub. L. 91–190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.34 and 50.54 also issued under Pub. L. 97–415, 96 Stat. 2073 (42 U.S.C. 2239). Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80–50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Appendix F also issued under sec. 187, 68 Stat. 955 (42 U.S.C. 2237).

2. Section 50.55a is amended by:

(a) removing paragraphs (b)(2)(xv)(G)(*4*), (g)(6)(ii)(B)(*1*) through (g)(6)(ii)(B)(*4*);

(b) redesignating and revising paragraph (g)(6)(ii)(B)(*5*) as (g)(6)(ii)(B);

(c) revising the introductory text of paragraph (b)(1), paragraphs (b)(1)(ii), (b)(1)(iii) and (b)(1)(v), the introductory text of paragraph (b)(2), paragraph (b)(2)(vi), the introductory text of paragraphs (b)(2)(viii) and (b)(2)(ix), paragraphs (b)(2)(xi), and (b)(2)(xiv), the introductory text of paragraph (b)(2)(xv), paragraphs (b)(2)(xv)(A), (b)(2)(xv)(K)(*1*)(*i*) and (b)(2)(xvii), the introductory text of paragraph (b)(3), paragraph (b)(3)(ii), the introductory text of paragraphs (b)(3)(iii) and (b)(3)(iv), and paragraphs (b)(3)(v) and (g)(6)(ii)(C)(*1*); and

(d) adding paragraphs (b)(2)(viii)(F), (b)(2)(ix)(F) through (b)(2)(ix)(I), (b)(2)(xii), (b)(2)(xv)(M), (b)(2)(xviii) through (b)(2)(xxi), (b)(3)(iv)(D), (b)(3)(vi), and (g)(6)(ii)(C)(*2*).

The amended text is set forth to read as follows:

§ 50.55a Codes and standards.

* * * * *

(b) * * *

(1) As used in this section, references to Section III of the ASME Boiler and Pressure Vessel Code refer to Section III, and include the 1963 Edition through

1973 Winter Addenda, and the 1974 Edition (Division 1) through the 2000 Addenda (Division 1), subject to the following limitations and modifications:

* * * * *

(ii) *Weld leg dimensions.* When applying the 1989 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(1) of this section, licensees may not apply paragraph NB–3683.4(c)(1), Footnote 11 to Figure NC–3673.2(b)–1, and Figure ND–3673.2(b)–1.

(iii) *Seismic design.* Licensees may use Articles NB–3200, NB–3600, NC–3600, and ND–3600 up to and including the 1993 Addenda, subject to the limitation specified in paragraph (b)(1)(ii) of this section. Licensees may not use these Articles in the 1994 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(1) of this section.

* * * * *

(v) *Independence of inspection.* Licensees may not apply NCA–4134.10(a) of Section III, 1995 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(1) of this section.

(2) As used in this section, references to Section XI of the ASME Boiler and Pressure Vessel Code refer to Section XI, and include the 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition (Division 1) through the 2000 Addenda (Division 1), subject to the following limitations and modifications:

* * * * *

(vi) *Effective edition and addenda of Subsection IWE and Subsection IWL, Section XI.* Licensees may use either the 1992 Edition with the 1992 Addenda or the 1995 Edition with the 1996 Addenda of Subsection IWE and Subsection IWL as modified and supplemented by the requirements in paragraphs (b)(2)(viii) and (b)(2)(ix) of this section when implementing the initial 120-month inspection interval for the containment inservice inspection requirements of this section. Successive 120-month interval updates must be implemented in accordance with paragraph (g)(4)(ii) of this section.

* * * * *

(viii) *Examination of concrete containments.* Licensees applying Subsection IWL, 1992 Edition with the 1992 Addenda, shall apply paragraphs (b)(2)(viii)(A) through (b)(2)(viii)(E) of this section. Licensees applying the 1995 Edition with the 1996 Addenda shall apply paragraphs (b)(2)(viii)(A), (b)(2)(viii)(D)(*3*), and (b)(2)(viii)(E) of this section. Licensees applying the 1998 Edition with the 1999 and 2000 Addenda shall apply paragraphs (b)(2)(viii)(E) and (b)(2)(viii)(F) of this section.

* * * * *

(F) Personnel that examine containment concrete surfaces and tendon hardware, wires, or strands must meet the qualification provisions in IWA–2300. The ''owner-defined'' personnel qualification provisions in IWL–2310(d) are not approved for use.

(ix) *Examination of metal containments and the liners of concrete containments.* Licensees applying Subsection IWE, 1992 Edition with the 1992 Addenda, or the 1995 Edition with the 1996 Addenda, shall satisfy the requirements of paragraphs (b)(2)(ix)(A) through (b)(2)(ix)(E) of this section. Licensees applying the 1998 Edition with the 1999 Addenda and 2000 Addenda shall satisfy the requirements of paragraphs (b)(2)(ix)(A), (b)(2)(ix)(B), and (b)(2)(ix)(F) through (b)(2)(ix)(I) of this section.

* * * * *

(F) VT–1 and VT–3 examinations must be conducted in accordance with IWA–2200. Personnel conducting examinations in accordance with the VT–1 or VT–3 examination method shall be qualified in accordance with IWA–2300. The ''owner-defined'' personnel qualification provisions in IWE–2330(a) for personnel that conduct VT–1 and VT–3 examinations are not approved for use.

(G) The VT–3 examination method must be used to conduct the examinations in Items E1.12 and E1.20 of Table IWE–2500–1, and the VT–1 examination method must be used to conduct the examination in Item E4.11 of Table IWE–2500–1. An examination of the pressure-retaining bolted connections in Item E1.11 of Table IWE–2500–1 using the VT–3 examination method must be conducted once each interval. The ''owner-defined'' visual examination provisions in IWE–2310(a) are not approved for use for VT–1 and VT–3 examinations.

(H) Containment bolted connections that are disassembled during the scheduled performance of the examinations in Item E1.11 of Table IWE–2500–1 must be examined using the VT–3 examination method. Flaws or degradation identified during the performance of a VT–3 examination must be examined in accordance with the VT–1 examination method. The criteria in the material specification or IWB–3517.1 must be used to evaluate containment bolting flaws or degradation. As an alternative to performing VT–3 examinations of containment bolted connections that are disassembled during the scheduled performance of Item E1.11, VT–3 examinations of containment bolted connections may be conducted whenever containment bolted connections are disassembled for any reason.

(I) The ultrasonic examination acceptance standard specified in IWE–3511.3 for Class MC pressure-retaining components must also be applied to metallic liners of Class CC pressure-retaining components.

* * * * *

(xi) *Class 1 piping.* Licensees may not apply IWB–1220, ''Components Exempt from Examination,'' of Section XI, 1989 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, and shall apply IWB–1220, 1989 Edition.

(xii) *Underwater Welding.* The provisions in IWA–4660, ''Underwater Welding,'' of Section XI, 1997 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, are not approved for use on irradiated material.

* * * * *

(xiv) *Appendix VIII personnel qualification.* All personnel qualified for performing ultrasonic examinations in accordance with Appendix VIII shall receive 8 hours of annual hands-on training on specimens that contain cracks. Licensees applying the 1999 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section may use the annual practice requirements in VII–4240 of Supplement VII of Section XI in place of the 8 hours of annual hands-on training provided that the supplemental practice is performed on material or welds that contain cracks, or by analyzing prerecorded data from material or welds that contain cracks. In either case, training must be completed no earlier than 6 months prior to performing ultrasonic examinations at a licensee's facility.

(xv) *Appendix VIII specimen set and qualification requirements.* The following provisions may be used to modify implementation of Appendix VIII of Section XI, 1995 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section. Licensees choosing to apply these provisions shall apply all of the following provisions under paragraph (b)(2)(xv) except for those in paragraph (b)(2)(xv)(F) which are optional.

(A) When applying Supplements 2, 3, and 10 to Appendix VIII, the following examination coverage criteria requirements must be used:

(*1*) Piping must be examined in two axial directions, and when examination in the circumferential direction is required, the circumferential examination must be performed in two directions, provided access is available. Dissimilar metal welds must be examined axially and circumferentially.

(*2*) Where examination from both sides is not possible, full coverage credit may be claimed from a single side for ferritic welds. Where examination from both sides is not possible on austenitic welds or dissimilar metal welds, full coverage credit from a single side may be claimed only after completing a successful single-sided Appendix VIII demonstration using flaws on the opposite side of the weld. Dissimilar metal weld qualifications must be demonstrated from the austenitic side of the weld and may be used to perform examinations from either side of the weld.

* * * * *

(K) * * *

(*1*) * * *

(*i*) For detection, a minimum of four flaws in one or more full-scale nozzle mock-ups must be added to the test set. The specimens must comply with Supplement 6, paragraph 1.1, to Appendix VIII, except for flaw locations specified in Table VIII S6–1. Flaws may be either notches, fabrication flaws or cracks. Seventy-five (75) percent of the flaws must be cracks or fabrication flaws. Flaw locations and orientations must be selected from the choices shown in paragraph (b)(2)(xv)(K)(*4*) of this section, Table VIII–S7–1—Modified, with the exception that flaws in the outer eighty-five (85) percent of the weld need not be perpendicular to the weld. There may be no more than two flaws from each category, and at least one subsurface flaw must be included.

* * * * *

(M) When implementing Supplement 12 to Appendix VIII, only the provisions related to the coordinated implementation of Supplement 3 to Supplement 2 performance demonstrations are to be applied.

* * * * *

(xvii) *Reconciliation of Quality Requirements.* When purchasing replacement items, in addition to the reconciliation provisions of IWA–4200, 1995 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, the replacement items must be purchased, to the extent necessary, in accordance with the licensee's quality assurance program description required by 10 CFR 50.34(b)(6)(ii).

(xviii) *Certification of NDE personnel.* (A) Level I and II nondestructive examination personnel shall be recertified on a 3-year interval in lieu of the 5-year interval specified in the 1997 Addenda and 1998 Edition of IWA–2314, and IWA–2314(a) and IWA–2314(b) of the 1999 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section.

(B) Paragraph IWA–2316 of the 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, may only be used to qualify personnel that observe for leakage during system leakage and hydrostatic tests conducted in accordance with IWA–5211(a) and (b), 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section.

(C) When qualifying visual examination personnel for VT–3 visual examinations under paragraph IWA–2317 of the 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, the proficiency of the training must be demonstrated by administering an initial qualification examination and administering subsequent examinations on a 3-year interval.

(xix) *Substitution of alternative methods.* The provisions for the substitution of alternative examination methods, a combination of methods, or newly developed techniques in the 1997 Addenda of IWA–2240 must be applied. The provisions in IWA–2240, 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, are not approved for use. The provisions in IWA–4520(c), 1997 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, allowing the substitution of alternative examination methods, a combination of methods, or newly developed techniques for the methods specified in the Construction Code are not approved for use.

(xx) *System leakage tests.* When performing system leakage tests in accordance IWA–5213(a), 1997 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, a 10-minute hold time after attaining test pressure is required for Class 2 and Class 3 components that are not in use during normal operating conditions, and no hold time is required for the remaining Class 2 and Class 3 components provided that the system has been in operation for at least 4 hours for insulated components or 10 minutes for uninsulated components.

(xxi) *Table IWB–2500–1 examination requirements.* (A) The provisions of Table IWB–2500–1, Examination Category B–D, Full Penetration Welded Nozzles in Vessels, Items B3.40 and B3.60 (Inspection Program A) and Items B3.120 and B3.140 (Inspection Program B) in the 1998 Edition must be applied when using the 1999 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section. A visual examination with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack, utilizing the allowable flaw length criteria in Table IWB–3512–1, 1997 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, may be performed in place of an ultrasonic examination.

(B) The provisions of Table IWB–2500–1, Examination Category B–G–2, Item B7.80, that are in the 1995 Edition are applicable only to reused bolting when using the 1997 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section.

(C) The provisions of Table IWB–2500–1, Examination Category B–K, Item B10.10, of the 1995 Addenda must be applied when using the 1997 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section.

(3) As used in this section, references to the OM Code refer to the ASME Code for Operation and Maintenance of Nuclear Power Plants, and include the 1995 Edition through the 2000 Addenda subject to the following limitations and modifications:

* * * * *

(ii) *Motor-Operated Valve testing.* Licensees shall comply with the provisions for testing motor-operated valves in OM Code ISTC 4.2, 1995 Edition with the 1996 and 1997 Addenda, or ISTC–3500, 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(3) of this section, and shall establish a program to ensure that motor-operated valves continue to be capable of performing their design basis safety functions.

(iii) *Code Case OMN–1.* As an alternative to paragraph (b)(3)(ii) of this section, licensees may use Code Case OMN–1, ''Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor-Operated Valve Assemblies in Light Water Reactor Power Plants,'' Revision 0, in

conjunction with ISTC 4.3, 1995 Edition with the 1996 and 1997 Addenda, or ISTC–3600, 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(3) of this section. Licensees choosing to apply the Code Case shall apply all of its provisions.

* * * * *

(iv) *Appendix II.* Licensees applying Appendix II, ''Check Valve Condition Monitoring Program,'' of the OM Code, 1995 Edition with the 1996 and 1997 Addenda, shall satisfy the requirements of paragraphs (b)(3)(iv)(A), (b)(3)(iv)(B), and (b)(3)(iv)(C) of this section. Licensees applying Appendix II, 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(3) of this section, shall satisfy the requirements of paragraphs (b)(3)(iv)(A), (b)(3)(iv)(B), and (b)(3)(iv)(D) of this section.

* * * * *

(D) The provisions of ISTC–3510, ISTC–3520, and ISTC–3540 in addition to ISTC–5221 must be implemented if the Appendix II condition monitoring program is discontinued.

(v) *Subsection ISTD.* Article IWF–5000, ''Inservice Inspection Requirements for Snubbers,'' of the ASME BPV Code, Section XI, provides inservice inspection requirements for examinations and tests of snubbers at nuclear power plants. Licensees may use Subsection ISTD, ''Inservice Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Power Plants,'' ASME OM Code, 1995 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(3) of this section, in place of the requirements for snubbers in Section XI, IWF–5200(a) and (b) and IWF–5300(a) and (b), by making appropriate changes to their technical specifications or licensee-controlled documents. Preservice and inservice examinations must be performed using the VT–3 visual examination method described in IWA–2213.

(vi) *Exercise interval for manual valves.* Manual valves must be exercised on a 2-year interval rather that the 5-year interval specified in paragraph ISTC–3540 of the 1999 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(3) of this section, provided that adverse conditions do not require more frequent testing.

* * * * *

(g) * * *

(6) * * *

(ii) * * *

(B) Licensees do not have to submit to the NRC staff for approval of their containment inservice inspection programs which were developed to satisfy the requirements of Subsection IWE and Subsection IWL with specified modifications and limitations. The program elements and the required documentation must be maintained on site for audit.

(C) * * *

(*1*) Appendix VIII and the supplements to Appendix VIII to Section XI, Division 1, 1995 Edition with the 1996 Addenda of the ASME Boiler and Pressure Vessel Code must be implemented in accordance with the following schedule: Appendix VIII and Supplements 1, 2, 3, and 8—May 22, 2000; Supplements 4 and 6—November 22, 2000; Supplement 11—November 22, 2001; and Supplements 5, 7, and 10—November 22, 2002.

(*2*) Licensees implementing the 1989 Edition and earlier editions and addenda of IWA–2232 of Section XI, Division 1, of the ASME Boiler and Pressure Vessel Code must implement the 1995 Edition with the 1996 Addenda of Appendix VIII and the supplements to Appendix VIII of Section XI, Division 1, of the ASME Boiler and Pressure Vessel Code.

* * * * *

Dated at Rockville, Maryland this 9th day of September 2002.

For the U.S. Nuclear Regulatory Commission.

William D. Travers,

Executive Director For Operations.

[FR Doc. 02–23811 Filed 9–25–02; 8:45 am]

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DEPARTMENT OF THE TREASURY

Office of Thrift Supervision

12 CFR Parts 560, 590, and 591

[No. 2002–43]

RIN 1550–AB51

Alternative Mortgage Transaction Parity Act; Preemption

AGENCY: Office of Thrift Supervision, Treasury.

ACTION: Final rule.

SUMMARY: The Alternative Mortgage Transaction Parity Act (AMTPA) authorizes state chartered housing creditors to make, purchase, and enforce alternative mortgage transactions without regard to any state constitution, law, or regulation. To rely on AMTPA, certain state chartered housing creditors must comply with regulations on alternative mortgage transactions issued by the Office of Thrift Supervision (OTS). In today's rulemaking, OTS revises its rules identifying the OTS regulations that apply under AMTPA. OTS will no longer identify its regulations on prepayments and late charges for state chartered housing creditors.

OTS is also revising its limits on the amount of late charges that may be assessed on loans secured by first liens on residential manufactured homes under part 590, which addresses the preemption of state usury laws. In addition, OTS is making a minor technical change to the definition of reverse mortgage in part 591, which addresses the preemption of state due-on-sale laws.

EFFECTIVE DATE: January 1, 2003.

FOR FURTHER INFORMATION CONTACT: Theresa Stark, Senior Project Manager, Compliance Policy, (202) 906–7054; Karen Osterloh, Special Counsel, Regulations and Legislation Division, (202) 906–6639, Office of Thrift Supervision, 1700 G Street, NW., Washington, DC 20552.

SUPPLEMENTARY INFORMATION:

I. Alternative Mortgage Transaction Parity Act Regulations (§ 560.220)

The Alternative Mortgage Transaction Parity Act (AMTPA) [1] permits state chartered housing creditors [2] to make, purchase, and enforce alternative mortgage transactions if the creditors comply with regulations governing such transactions issued by federal regulators. AMTPA applies to loans with any alternative payment features that vary from conventional fixed-rate, fixed-term mortgage loans, such as variable rates, balloon payments, or call features. It allows state chartered housing creditors to engage in alternative mortgage transactions notwithstanding ''any State constitution, law, or regulation,'' provided the transactions are made in conformity with regulations issued by one of three federal regulators.[3] Housing creditors, other than state chartered commercial banks and state chartered

[1] 12 U.S.C. 3801 *et seq.*

[2] A ''housing creditor'' is a depository institution, a lender approved by the Secretary of Housing and Urban Development for participation in certain mortgage insurance programs, ''any person who regularly makes loans, credit sales or advances secured by interests in properties referred to in [AMTPA]; or * * * any transferee of any of them.'' To qualify as a state housing creditor and take advantage of preemption, AMTPA specifically provides that the creditor must be ''licensed under applicable State law and [remain or become] subject to the applicable regulatory requirements and enforcement mechanisms provided by State law.'' 12 U.S.C. 3802(2).

[3] 12 U.S.C. 3803(c).