January 23, 2004

STATE LIAISON OFFICERS

PROPOSED AMENDMENT TO 10 CFR 50.55a, "CODES AND STANDARDS"

This is to request your review and comment* on the enclosed U.S. Nuclear Regulatory Commission's (NRC) proposed amendment to the Commission's rules in 10 CFR Part 50. The proposed rule was published in the Federal Register on January 7, 2004 (69 FR 879). The regulations in 10 CFR 50.55a require the use of Section III, Division 1, of the American Society of Mechanical Engineers *Boiler and Pressure Vessel Code* (ASME BPV Code) for the construction of nuclear power plant components; Section XI, Division 1, of the ASME BPV Code for inservice inspection (ISI) of nuclear power plant components; and the ASME *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code) for inservice testing (IST) of nuclear power plant pumps and valves. It has been NRC practice to review new editions and addenda of the ASME BPV and OM Code, and periodically update 10 CFR 50.55a to incorporate more recent editions and addenda by reference in the regulations.

The proposed rulemaking would amend the regulations in 10 CFR 50.55a to incorporate by reference a more recent edition and addenda of the ASME BPV and OM Code. The regulations in 10 CFR 50.55a (1) require licensees to revise their ISI and IST programs every 120 months to the most recent edition and addenda of the ASME Code incorporated by reference into 10 CFR 50.55a that is in effect 12 months prior to the start of the new 120-month interval; (2) permit licensees to voluntarily update their construction, ISI, and IST programs at any time to the most recent edition and addenda of the ASME BPV or OM Code incorporated by reference in 10 CFR 50.55a with the approval of the NRC; and (3) specify the edition and addenda of Section III of the ASME BPV Code that must be applied to the construction of reactor coolant pressure boundary components.

The NRC believes that effective ISI programs based on a broad technical consensus standard maintain safety by providing confidence that the integrity of the reactor coolant system (RCS) pressure boundary and containment are maintained, and that the effects of component aging are adequately managed. The assurance of the integrity of the RCS pressure boundary and the containment is one of the cornerstones of the NRC regulatory system. ISI programs are relied upon to provide additional assurance, through application of the defense-in-depth philosophy, of the integrity of these barriers and to compensate for uncertainties. Further, experience has shown that RCS pressure boundary components degrade as they age, and ISI programs are relied upon to manage the effects of aging. ISI requirements that assure the integrity of the RCS pressure boundary and containment relate to defense-in-depth considerations that do not lend themselves to cost/benefit analyses.

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*This information request has been approved by OMB 3150-0163, expiration 9/30/2006. The estimated burden per response to comply with this voluntary collection is approximately 10 hours. Forward any comments regarding the burden estimate to the Information and Records Branch (T-6F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0163), Office of Management and Budget, Washington, DC 20503. If a document does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information.

In general, new and revised provisions in Section XI of the ASME BPV and OM Code clarify, reorganize, relax or supplement existing provisions; codify industry practices that are not addressed in earlier editions and addenda; or provide more efficient ISI and IST methods. Therefore, timely endorsement of new ASME Code editions and addenda in 10 CFR 50.55a would reduce the number of licensee requests to continue to use alternatives to previous Code requirements (or for relief from previous impractical Code requirements) during mandatory ISI and IST program 120-month updates. Further, implementing a new edition of the ASME Code can result in cost savings that offset the costs associated with updating ISI and IST programs because new ASME Code editions and addenda would permit the use of more cost-effective methods for ISI and IST. However, the costs and benefits associated with licensees updating their ISI and IST programs to a new edition and addenda of the ASME Code every 120 months are difficult to quantify because neither the NRC staff nor ASME performs detailed quantified cost and benefit analyses of the individual changes to the ASME Code. The burden associated with revising ISI and IST programs and procedures every 120 months versus the cost savings associated with implementing new, more cost-effective methods for ISI and IST in newer editions and addenda of the ASME Code has not been determined. However, the NRC notes that considerations of increased safety versus cost are implicit in the ASME consensus process. Although the Code revisions may not be rigorously analyzed for costs versus benefits, the costs and benefits are implicitly weighed in the course of their development. In addition, ASME has responded to recent NRC initiatives by developing risk-informed ISI and IST provisions that focus resources on safety significant systems and components and reduce unnecessary burden.

The enclosed environmental assessment (EA) has been prepared in support of the proposed rule. The conclusion of the EA is the Commission's finding that no significant environmental impact will result from the proposed rule. The EA and a pre-publication copy of the *Federal Register* notice, dated December 22, 2003, are provided for your review and comment. Please provide any comments on the rule and its environmental impact within 75 days after publication in the *Federal Register,* or March 22, 2004. Comments received after the comment period will be considered if it is practical to do so, but the NRC is able to assure consideration only for comments received on or before March 22.

You may submit comments by any one of the following methods. Please include the following number RIN 3150-AH24 in the subject line of your comments. Comments on rulemakings submitted in writing or in electronic form will be made available to the public in their entirety on the NRC rulemaking web site. Personal information will not be removed from your comments.

You may mail comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.

You may also e-mail comments to: SECY@nrc.gov. If you do not receive a reply e-mail confirming that we have received your comments, contact us directly at (301) 415-1966. You may also submit comments via the NRC's rulemaking web site at http://ruleforum.llnl.gov. Address questions about our rulemaking web site to Carol Gallagher (301) 415-5905; e-mail cag@nrc.gov.
Comments can be hand delivered at 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 am and 4:15 pm Federal workdays. (Telephone (301) 415-1966). Comments may also be faxed to: Secretary, U.S. Nuclear Regulatory Commission at (301) 415-1101.

Publicly available documents related to this rulemaking may be viewed electronically on the public computers located at the NRC's Public Document Room (PDR), O1 F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The PDR reproduction contractor will copy documents for a fee. Selected documents, including comments, may be viewed and downloaded electronically via the NRC rulemaking web site at: http://ruleforum.llnl.gov.

Publicly available documents created or received at the NRC after November 1, 1999, are available electronically at the NRC's Electronic Reading Room at http://www.nrc.gov/reading-rm/adams.html. From this site, the public can gain entry into the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC PDR Reference staff at 1-800-397-4209, 301-415-4737 or by e-mail to pdr@nrc.gov.

For additional information on this action, please contact Stephen Tingen in writing at Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, by telephone at (301) 415-1280, or by e-mail at sgt@nrc.gov.

Sincerely,

/RA/
Paul H. Lohaus, Director
Office of State and Tribal Programs

Enclosures:
1. Federal Register Notice
2. Environmental Assessment

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NUCLEAR REGULATORY COMMISSION
10 CFR Part 50
RIN 3150-AH24
Industry Codes and Standards; Amended Requirements

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) proposes to amend its regulations to incorporate by reference the 2001 Edition and the 2002 and 2003 Addenda of Division 1 of Section III of the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (BPV Code); the 2001 Edition and the 2002 and 2003 Addenda of Division 1 rules of Section XI of the ASME BPV Code; and the 2001 Edition and the 2002 and 2003 Addenda of the ASME *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code) to provide updated rules for constructing and inspecting components and testing pumps and valves in light-water cooled nuclear power plants.

DATES: Comments regarding the proposed amendment must be submitted by (insert date 75 days after publication in the *Federal Register*). Comments received after this date will be considered if it is practical to do so, but the Commission is only able to ensure consideration of comments received on or before this date.

ADDRESSES: You may submit comments by any one of the following methods. Please include the following number RIN 3150-AH24 in the subject line of your comments. Comments on rulemakings submitted in writing or in electronic form will be made available to the public in their entirety on the NRC rulemaking web site. Personal information will not be removed from your comments.

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

SUPPLEMENTARY INFORMATION:

1. Background

Section 50.55a requires, in part, that nuclear power plant licensees--

(1) Construct Class 1, 2, and 3 components in accordance with the provisions provided in Section Ill, Division 1, "Requirements for Construction of Nuclear Power Plant Components," of the ASME BPV Code;

(2) Inspect Class 1, 2, and 3, metal containment (MC), and concrete containment (CC) components in accordance with the provisions provided in Section XI, Division 1, "Requirements for Inservice Inspection of Nuclear Power Plant Components," of the ASME BPV Code; and

(3) Test Class 1, 2, and 3 pumps and valves in accordance with the provisions provided in the ASME OM Code.

In a final rule dated September 26, 2002 (67 FR 60520), the NRC revised § 50.55a to incorporate by reference the 1997 Addenda through 2000 Addenda of Division 1 rules of Section III of the ASME BPV Code; the 1997 Addenda through 2000 Addenda of Division 1 rules of Section XI of the ASME BPV Code; and the 1997 Addenda through 2000 Addenda of the ASME OM Code.

In this rulemaking, the NRC proposes to amend § 50.55a to incorporate by reference the 2001 Edition and the 2002 and 2003 Addenda of Division 1 rules of Section III of the ASME BPV Code; the 2001 Edition and the 2002 and 2003 Addenda of Division 1 rules of Section XI of the ASME BPV Code; and the 2001 Edition and the 2002 and 2003 Addenda of the ASME OM Code. The NRC has reviewed the 2001 Edition and the 2002 and 2003 Addenda of the ASME BPV Code, Sections III and XI, and the ASME OM Code, and concludes that–

(1) Section III of the ASME BPV Code is acceptable for use subject to proposed modifications and limitations;

(2) Section XI of the ASME BPV Code is acceptable for use subject to proposed modifications and limitations; and

(3) The ASME OM Code is acceptable for use with no new proposed limitations or modifications.

2. Summary of Proposed Revisions to 10 CFR 50.55a

2.1 Section III

The proposed amendment would revise § 50.55a(b)(1) to incorporate by reference the 2001 Edition and the 2002 and 2003 Addenda of Division 1 of Section III of the ASME BPV Code subject to proposed modifications and limitations.

The proposed amendment would revise the existing modification and limitation for weld leg dimensions and independence of inspection in §§ 50.55a(b)(1)(ii) and 50.55a(b)(1)(v), respectively, to apply to the 2001 Edition through 2003 Addenda of Section III, Division 1, of the ASME BPV Code. The modification and limitation in §§ 50.55a(b)(1)(ii) and 50.55a(b)(1)(v) would continue to apply to the 2001 Edition through 2003 Addenda of Section III because the earlier Code provisions that these regulations are based on were not revised in the 2001 through 2003 Addenda of Section III to address the underlying issues which led to the NRC to impose the modification and limitation on the ASME Code provisions.

10 CFR 50.55a(b)(1)(iii) - Seismic Design

The proposed amendment would revise the existing limitation for seismic design in § 50.55a(b)(1)(iii) to limit its application to the 1994 Addenda through 2000 Addenda of Section III, Division 1, of the ASME BPV Code. The limitation in § 50.55a(b)(1)(iii) would not apply to the 2001 Edition through 2003 Addenda of Section III because the earlier Code provisions that this regulation was based on were revised in the 2001 through 2003 Addenda of Section III to address a number of the underlying issues which led the NRC to impose the

limitation on the ASME Code provisions. New modifications and limitations proposed by the NRC on seismic design provisions in the 2001 through 2003 Addenda of Section III are discussed in § 50.55a(b)(1)(vi) below.

10 CFR 50.55a(b)(1)(vi) - Piping Design Criteria For Reversing Dynamic Loads

The proposed amendment would add modifications and limitations, § 50.55a(b)(1)(vi)(A) through (F), that prohibit or supplement as discussed below the use of certain piping design criteria for reversing dynamic loads in the 2001 Edition and the 2002 and 2003 Addenda of Section III of the ASME BPV Code. These provisions involve the alternative method for evaluating reversing dynamic loads. Reversing dynamic loads are defined as those loads which cycle about a mean value and include building filtered loads, seismic (earthquake) loads, and reflected wave loads.

The alternative method for evaluating reversing dynamic loads was revised in the 1994 Addenda of Section III. The new provisions in the 1994 Addenda were based, in part, on industry evaluations of the data from tests performed under sponsorship of the Electric Power Research Institute (EPRI) and NRC. After reviewing changes in the 1994 Addenda, the NRC determined that the alternative method was unacceptable because evaluation of the test data did not support the changes. An ASME special working group was established to reevaluate the bases for the alternative method for evaluating reversing dynamic loads that was revised in the 1994 Addenda. An NRC sponsored research program was also initiated to evaluate the technical issues regarding the adequacy of the new provisions in the 1994 Addenda. These technical issues are summarized in NUREG/CR-5361, “Seismic Analysis of Piping,” dated June 1998. The technical issues summarized in NUREG/CR-5361 were subsequently evaluated by ASME committees, and Section III of the ASME BPV Code has been revised to resolve the technical issues in NUREG/CR-5361. However, in the NRC’s view, several technical issues in NUREG/CR-5361 have not been satisfactorily resolved. These technical issues are discussed below.

10 CFR 50.55a(b)(1)(vi)(A) - Reflected Waves Caused by Flow Transients

NB-3200, NB-3600, NC-3600, and ND-3600 of the 2001 Edition and the 2002 and 2003 Addenda allow the alternative method for evaluating reversing dynamic loads to be applied to calculations for piping subject to loads generated by reflected waves caused by flow transients (sudden closure of a valve is an example of a condition that could create a flow transient). Members on ASME committees used data from tests performed under the sponsorship of EPRI and NRC that focused on seismic loading conditions to demonstrate that use of the alternative method for evaluating reversing dynamic loads for piping subject to loads provided acceptable design margins. As discussed in NUREG/CR-5361, the limited amount of test data does not support a finding that the design margin is adequate for these types of loadings. Therefore, the NRC is proposing to disallow the use of the alternative method for evaluating reversing dynamic loads for piping subject to loads generated by reflected waves caused by flow transients in NB-3200, NB-3600, NC-3600, and ND-3600.

10 CFR 50.55a(b)(1)(vi)(B) - Inelastic Analysis for Evaluating Reversing Dynamic Loads

NB-3228.6 of the 2001 Edition and the 2002 and 2003 Addenda provides alternative provisions for performing an inelastic analysis for evaluating reversing dynamic loads. The NRC is proposing to disallow the use of NB-3228.6. As discussed in NUREG/CR-5361, the NRC's and industry's review of the limited amount of test data does not support a finding that the design margin is adequate. In addition, it would require validation of the nonlinear material modeling (constitutive relationships) in order to justify selection of the material models because of the high sensitivity of the dynamic analysis to these material models.

10 CFR 50.55a(b)(1)(vi)(C) - Level A and B Service Limit Loadings

NC-3653.2(d) and ND-3653.2(d) of the 2001 Edition and the 2002 and 2003 Addenda provide a separate equation for evaluating reversing dynamic loads from other design basis loadings for Level A and B service limits. The NRC is proposing to disallow the use of NC-3653.2(d) and ND-3653.2(d) because it has not been demonstrated that these provisions provide an adequate design margin or that the treatment of reversing dynamic loads separate from other design basis loads is acceptable. The NRC is proposing the use of NC-3653.1 and NC-3653.2 instead of NC-3653.2(d), and ND-3653.1 and ND-3653.2 instead of ND-3653.2(d). Analysis using NC-3653.1 or ND-3653.1 must include pressure and reversing dynamic loads that are not required to be combined with nonreversing dynamic loads. The allowable B_2' stress indices defined in NC-3655(b)(3) may be used in these analyses. The anchor motions associated with reversing dynamic loads must be included as an anchor displacement in the definition of M_C when applying NC-3653.2 or ND-3653.2.

10 CFR 50.55a(b)(1)(vi)(D) - Appendix N Linear Elastic Response Spectrum Analysis

NB-3656(b)(3), NC-3655(b)(3), and ND-3655(b)(3) of the 2001 Edition and the 2002 and 2003 Addenda provide a definition of the moment, $M_{E,}$ to be used in the evaluation of reversing dynamic loads. The moment definition states that reversing dynamic loads must be computed from a linear elastic response spectrum analysis as defined in Appendix N of Section III. Linear elastic response spectrum analysis requirements are also addressed in the licensing basis for each nuclear power plant. Appendix N linear elastic response spectrum analysis provisions may be less conservative than licensing basis linear elastic response spectrum analysis provisions. The proposed rule would disallow the use of Appendix N in applications when Appendix N linear elastic response spectrum analysis provisions are less conservative than licensing basis linear elastic response spectrum analysis provisions. A licensee would be required to compare the Appendix N linear elastic response spectrum analysis provisions to its licensing basis linear elastic response spectrum analysis provisions, and use the provisions that provide the most conservative calculation of M_E.

10 CFR 50.55a(b)(1)(vi)(E) - Stress Indices for Tees and Elbows

NB-3656(b)(3), NC-3655(b)(3), and ND-3655(b)(3) of the 2001 Edition and the 2002 and 2003 Addenda specify the maximum allowable B_2' stress indices for tees and elbows when using the alternative method for evaluating dynamic reversing loads. The allowable B_2' stress indices specified in ND-3655(b)(3) are not consistent with the allowable B_2' stress indices specified in NB-3656(b)(3) and NC-3655(b)(3). The allowable B_2' stress indices of 3/4 up to B_2 for tees and elbows as specified in NB-3656(b)(3) and NC-3655(b)(3) are acceptable. The

NRC is proposing to disallow the use of the B_2‘ stress indices specified in ND-3655(b)(3), and to require that the allowable B_2‘ stress indices specified in NB-3656(b)(3) and NC-3655(b)(3) be used instead of the allowable B_2‘ stress indices specified in ND-3655(b)(3). The NRC is proposing to disallow the use of the B_2‘ stress indices specified in ND-3655(b)(3) for tees and elbows because the design margins associated with this application have not been established.

10 CFR 50.55a(b)(1)(vi)(F) - Anchor Motions

The proposed amendment would allow the use of an allowable stress limit of $6S_M$ in the evaluation of the range of resultant moment only when it is demonstrated that the global piping system response to the anchor movement does not create significant inelastic strain concentrations when using the provisions in NB-3656(b)(4), NC-3655(b)(4), and ND-3655(b)(4). The proposed amendment would not require a demonstration that the anchor movement does not create significant inelastic strain concentrations if an allowable stress limit of $3S_M$ is used instead of $6S_M$ in the evaluation of the range of resultant moment. NB-3656(b)(4), NC-3655(b)(4), and ND-3655(b)(4) of the 2001 Edition and the 2002 and 2003 Addenda provide provisions for evaluating anchor motions when using the alternative method for evaluating reversing dynamic loads. The allowable bending stress limit of $6S_M$ in NB-3656(b)(4), NC-3655(b)(4), and ND-3655(b)(4) is used in conjunction with the elastic analysis of the piping system. However, significant inelastic strains in the piping system could occur at the $6S_M$ stress limit. The elastic analysis of the piping system will ensure that the inelastic piping strains will remain within acceptable limits as long as the global piping system behaves elastic. However, if a significant strain concentration exists in the piping system, the maximum strain may be much greater than would be predicted by an elastic analysis. These larger strains could result in failure of the piping. The use of an allowable stress limit of $3S_M$ instead of $6S_M$ is acceptable because the adequacy of the $3S_M$ stress limit has been satisfactorily demonstrated by operating experience for thermal loads.

10 CFR 50.55a(b)(1)(vii) - Subsection NH

The proposed modification, § 50.55a(b)(1)(vii), would not approve the use of Subsection NH of the 2001 Edition through 2003 Addenda of Section III of the ASME BPV Code, and withdraw the current approval of Subsection NH of the 1995 through 2000 Addenda of Section III of the ASME BPV Code. The scope of Subsection NH includes Class 1 components that function in water, steam, sodium, helium, or any other fluid. The special design provisions in Subsection NH apply to Class 1 components that are required to function at elevated metal temperatures where creep and relaxation effects may be significant and for which the stress limits and design provisions in Subsection NB of Section III are not applicable. These stress limits and design provisions of Subsection NB are applicable only to service conditions where creep and relaxation effects are negligible. The elevated temperature provisions in Subsection NH—applicable to certain Class 1 components in future advanced reactor designs such as liquid metal, sodium, and high-temperature gas-cooled reactor designs—have not been reviewed by the NRC for technical adequacy because the design provisions in Subsection NH are not applicable to any currently operating nuclear power plant nor to any currently approved standard advanced light water reactor plant design. For these reasons, the NRC is proposing not to approve the use of Subsection NH. Future reactor designs may not employ the special design methodologies for high temperatures described in Subsection NH absent specific approval by the NRC.

2.2 Section XI

The proposed amendment would revise § 50.55a(b)(2) to incorporate by reference the 2001 Edition and the 2002 and 2003 Addenda of Division 1 of Section XI of the ASME BPV Code subject to proposed modifications and limitations.

The proposed amendment would revise the existing modifications and limitations for quality assurance, Class 1 piping, underwater welding, reconciliation of quality requirements, certification of nondestructive examination personnel, substitution of alternative method, and Table IWB-2500-1 examination requirements in §§ 50.55a(b)(2)(x), 50.55a(b)(2)(xi), 50.55a(b)(2)(xii), 50.55a(b)(2)(xvii), 50.55a(b)(2)(xviii), 50.55a(b)(2)(xix), and 50.55a(b)(2)(xxi), respectively, to apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code. The modifications and limitations in §§ 50.55a(b)(2)(x), 50.55a(b)(2)(xi), 50.55a(b)(2)(xii), 50.55a(b)(2)(xvii), 50.55a(b)(2)(xviii), 50.55a(b)(2)(xix), and 50.55a(b)(2)(xxi) would continue to apply to the 2001 Edition through 2003 Addenda of Section XI because the earlier Code provisions that these regulations are based on were not revised in the 2001 through 2003 Addenda of Section XI to address the underlying issues which led the NRC to impose the modifications and limitations on the ASME Code provisions.

10 CFR 50.55a(b)(2) - Footnote 10

The proposed amendment would add Footnote 10 to § 50.55a(b)(2) to indicate that the NRC has issued Order EA-03-009 which imposed enhanced reactor pressure vessel (RPV) head inspections at pressurized water reactors (PWRs). In February 2003, the NRC issued EA-03-009 to licensees of PWRs to establish interim inspection requirements that would ensure adequate protection of public health and safety, based in part, on the information gathered from NRC Bulletins 2001-01 and 2002-02. The Order imposes enhanced requirements for PWR licensees that supplement areas of Section XI of the ASME BPV Code to ensure the structural and leakage integrity of the reactor coolant pressure boundary. The requirements imposed by the Order do not conflict with the requirements in Section XI of the ASME BPV Code but are needed to enhance Code requirements. Since issuing the Order, the NRC issued Regulatory Issue Summary 2003-13 on July 29, 2003, which summarizes the information gathered from Bulletin 2002-01 and the South Texas Project inspection related to cracking and leaks associated with Alloy 600/82/182 materials; and Information Notice 2003-11 on August 13, 2003, which describes the leakage found on the bottom of the South Texas vessel. In the near future, the NRC plans to institute rulemaking to incorporate the provisions of the Order into NRC rules and regulations. Until that time, licensees are required to meet the requirements in the Order as a supplement to the requirements in the 2001 Edition with the 2002 and 2003 Addenda of Section XI of the ASME BPV Code. Licensees of PWRs using editions and addenda of Section XI of the ASME Code earlier than the 2001 Edition are currently required to apply the requirements in the Order to supplement the use of their applicable Code of record. The NRC anticipates that the Backfit Rule will not apply to the proposed rulemaking incorporating the provisions of the Order because the rulemaking will not impose any new requirements beyond that required by the Order.

10 CFR 50.55a(b)(2)(viii) - Examination of Concrete Containments

The proposed amendment would revise the existing modification for examination of concrete containments in § 50.55a(b)(2)(viii) to apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code. The modification in

§ 50.55a(b)(2)(viii) would continue to apply to the 2001 Edition through 2003 Addenda of Section XI because the earlier Code provisions that this regulation was based on were not revised in the 2001 through 2003 Addenda of Section XI to address the underlying issues which led the NRC to impose the modification of the ASME Code provisions. The existing modification for examination of concrete containments in § 50.55a(b)(2)(viii) also would be revised to require that a new modification, § 50.55a(b)(2)(viii)(G), which is discussed below, would apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code.

The proposed modification, § 50.55a(b)(2)(viii)(G), would require that corrosion protection medium (CPM) be restored in accordance with the quality assurance program requirements specified in IWA-1400 following IWL-4000 repair and replacement activities conducted on concrete containment post-tensioning systems when using the 2001 Edition through 2003 Addenda of Section XI. IWL-4110 of Section XI defines the scope of the repair and replacement activities associated with concrete containments. IWL-4110(b) specifies those items that are exempt from repair and replacement activity requirements. A new provision, IWL-4110(b)(3), was added in the 2002 Addenda exempting the removal, replacement, or addition of concrete containment post-tensioning system CPM from repair and replacement requirements. Prior to the 2002 Addenda, IWL-4000 specifies that the CPM must be restored following a concrete containment post-tensioning system repair and replacement activity.

CPM is applied to containment post-tension system components to prevent corrosion. The function of the containment post-tension system is to retain pressure and CPM is relied upon to maintain the integrity of the containment post-tension system. Therefore, the restoration of concrete containment post-tensioning system CPM is important to ensure that the containment integrity and load capacity satisfy design basis requirements under accident conditions. For example, the acceptable concentration of water soluble chlorides, nitrates and sulfides of the replacement CPM must be verified. The amount of CPM to be installed and the method used to apply the CPM must be specified.

10 CFR 50.55a(b)(2)(ix) - Examination of Metal Containments and the Liners of Concrete Containments

The proposed amendment would revise the existing modification for examination of metal containments and the liners of concrete containments in § 50.55a(b)(2)(ix) to apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code. With the exception of the visual examination requirements specified in § 50.55a(b)(2)(ix)(B), the modification in § 50.55a(b)(2)(ix) would continue to apply to the 2001 Edition through 2003 Addenda of Section XI because the earlier Code provisions that this regulation was based on were not revised in the 2001 through 2003 Addenda of Section XI to address the underlying issues which led to the NRC to impose the modification on the ASME Code provisions. The minimum illumination and distance visual examination provisions in Table IWA-2210-1 in Section XI were revised in the 2003 Addenda and are equivalent to the minimum illumination and distance visual examination requirements in § 50.55a(b)(2)(ix)(B). Therefore, the modification for examination of metal containments and the liners of concrete containments in § 50.55a(b)(2)(ix) would also be revised to specify that the existing modification in § 50.55a(b)(2)(ix)(B) would not apply to the 2003 Addenda of Section XI, Division 1, of the ASME BPV Code.

10 CFR 50.55a(b)(2)(xiii) - Flaws in Class 3 Piping

The proposed amendment would revise § 50.55a(b)(2)(xiii) to eliminate the authorization to use Code Case N-513. The existing regulation in § 50.55a(b)(2)(xiii) authorizes the use of Code Cases N-513 and N-523-1. The authorization of Code Case N-513 was added to Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," in Revision 13. Revision 13 to Regulatory Guide 1.147 was incorporated by reference into § 50.55a in a final rule dated July 8, 2003 (68 FR 40469). Thus, it is no longer necessary to authorize the use of Code Case N-513 in § 50.55a(b)(2)(xiii) because this code case is included in Regulatory Guide 1.147. Section 50.55a(b)(2)(xiii) would continue to authorize the use of Code Case N-523-1, because Code Case N-523-1 is currently not included in Regulatory Guide 1.147.

10 CFR 50.55a(b)(2)(xiv) - Appendix VIII Personnel Qualification

The proposed amendment would revise the existing modification for Appendix VIII personnel qualification in § 50.55a(b)(2)(xiv) to apply to the 2001 Edition through 2003 Addenda of Section IX, Division 1, of the ASME BPV Code. The modification in § 50.55a(b)(2)(xiv) would continue to apply to the 2001 Edition through 2003 Addenda of Section XI because the earlier Code provisions that this regulation was based on were not revised in the 2001 through 2003 Addenda of Section IX to address the underlying issues which led to the NRC to impose the modification on the ASME Code provisions. The proposed rule would also revise § 50.55a(b)(2)(xiv) to correct an oversight. The existing regulation incorrectly states that the annual practice requirements in VII-4240 of Supplement VII of Section XI may be used. The reference to Supplement VII is incorrect; it should be Appendix VII. Therefore, § 50.55a(b)(2)(xiv) would be revised to state that the annual practice requirements in VII-4240 of Appendix VII of Section XI may be used.

10 CFR 50.55a(b)(2)(xv) and (xxiv) - Appendix VIII Qualification and Coverage Requirements

The proposed amendment would revise the existing modification for Appendix VIII specimen set and qualification requirements in § 50.55a(b)(2)(xv) to apply to the 2001 Edition of Section XI, Division 1, of the ASME BPV Code. The modification in § 50.55a(b)(2)(xv) would continue to apply to the 2001 Edition of Section XI because the earlier Code provisions that this regulation was based on were not revised in the 2001 Edition of Section XI to address the underlying issues which led the NRC to impose the modification of the ASME Code provisions. A new limitation, § 50.55a(b)(2)(xxiv), is discussed below that would prohibit the use of Appendix VIII and the supplements to Appendix VIII, and Article I-3000 in the 2002 and 2003 Addenda of Section XI of the ASME BPV Code.

The proposed amendment would also revise the existing regulation in § 50.55a(b)(2)(xv)(C)(*1*) to specify that the flaw depth sizing provisions in Subparagraph 3.2(c) of Supplement 4 to Appendix VIII are not applicable when Appendix VIII is implemented in accordance with § 50.55a(b)(2)(xv). Section 50.55a(b)(2)(xv) currently provides an alternative method that licensees may use for implementing Appendix VIII and the supplements to Appendix VIII. The existing regulation specifies that the flaw depth sizing provisions in Subparagraph 3.2(a) of Supplement 4 to Appendix VIII are not applicable when using the flaw depth sizing provisions specified in § 50.55a(b)(2)(xv)(C)(*1*). This revision is needed to correct an oversight that the flaw depth sizing provisions in Subparagraph 3.2(c) of Supplement 4 to

Appendix VIII also do not apply when using the flaw depth sizing provisions specified in § 50.55a(b)(2)(xv)(C)(*1*). Thus, the flaw depth sizing provisions in § 50.55a(b)(2)(xv)(C)(*1*) would be revised to also reference Subparagraph 3.2(c) of Supplement 4 to Appendix VIII.

The proposed amendment would revise the existing regulation in § 50.55a(b)(2)(xv)(J) to eliminate the authorization to use Code Case N-522. The regulation in § 50.55a(b)(2)(xv)(J) authorizes the use of Code Case N-552. The authorization of Code Case N-552 was added to Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," in Revision 13. Revision 13 to Regulatory Guide 1.147 was incorporated by reference into § 50.55a in a final rule dated July 8, 2003 (68 FR 40469). Thus, it is no longer necessary to authorize the use of Code Case N-552 in § 50.55a(b)(2)(xv)(J) because this code case is included in Regulatory Guide 1.147.

The proposed limitation, § 50.55a(b)(2)(xxiv), would prohibit the use of Appendix VIII and the supplements to Appendix VIII, and Article I-3000 in the 2002 and 2003 Addenda of Section XI of the ASME BPV Code. The elements of the Performance Demonstration Initiative (PDI) program was added to Appendix VIII and its supplements in the 2002 Addenda of Section XI of the ASME BPV Code. The PDI is an organization formed for the purpose of developing efficient, cost-effective, and technically sound ultrasonic (UT) performance demonstration methods to meet Appendix VIII requirements. The PDI program has evolved as programs were developed for each Appendix VIII supplement. Article I-3000, Examination Coverage, was also added in the 2002 Addenda to provide UT examination coverage criteria for certain welds.

The final rule dated September 22, 1999 (64 FR 51370), requires licensees to implement Appendix VIII and its supplements. The essential elements of the PDI program were added to the final rule as § 50.55a(b)(2)(xv). Section 50.55a(b)(2)(xv) also provides UT examination coverage criteria. Licensees are currently implementing Appendix VIII and its supplements in accordance with § 50.55a(b)(2)(xv). Although the NRC, ASME, and PDI have made considerable progress in the development of UT qualification and inspection requirements, the addition of the PDI program and UT examination coverage criteria into Section XI are not complete at this time. As a result, conflicts exist between the modifications in § 50.55a(b)(2)(xv), and the provisions in Appendix VIII and its supplements and Article I-3000 in the 2002 and 2003 Addenda of Section XI of the ASME BPV Code. Therefore, Appendix VIII and its supplements can not be implemented in accordance with § 50.55a(b)(2)(xv) when using the 2002 and 2003 Addenda. Consequently, the proposed rule prohibits the use of Appendix VIII and its supplements and Article I-3000 beyond the 2001 Edition. The NRC plans to endorse Appendix VIII and its supplements and Article I-3000 when the addition of the PDI program and the addition of UT examination coverage criteria into Section XI are complete.

10 CFR 50.55a(b)(xx) - System Leakage Test

The proposed amendment would revise the existing modification for system leakage tests in § 50.55a(b)(2)(xx) to limit its application to the 1997 Addenda through 2001 Addenda of Section XI, Division 1, of the ASME BPV Code. The modification in § 50.55a(b)(2)(xx) would not apply to the 2002 and 2003 Addenda of Section XI because the earlier Code provisions that this regulation was based on were revised in the 2002 Addenda of Section XI to address the underlying issues which led to the NRC to impose the modification of the ASME Code provisions. The system leakage test provisions in IWA-5213(a) were revised in the

2002 Addenda of Section XI and are equivalent to the existing requirements in § 50.55a(b)(2)(xx).

10 CFR 50.55a(b)(2)(xxii) - Surface Examinations

The proposed modification, § 50.55a(b)(2)(xxii), would prohibit the use of a new provision in IWA-2220. The provisions of Code Case N-615, "Ultrasonic Examination as a Surface Examination Method for Category B-F and B-J piping Welds," were incorporated into IWA-2220 in the 2001 Edition of Section XI of the ASME BPV Code. Code Case N-615 and IWA-2220 (2001 Edition and the 2002 and 2003 Addenda) allow a surface examination to be conducted using a UT examination method. The UT examination is conducted from the inside surface of certain piping welds. Other allowable surface examination methods (magnetic particle or liquid penetrant) are conducted from the outside surface of certain piping welds. The purpose of the these surface examinations is to identify flaws in the outer surface of the weld. The NRC disallowed the use of Code Case N-615 and is proposing to prohibit the use of the same type of UT examination specified in IWA-2220 because there are no provisions in Section XI that address qualification requirements and performance demonstration criteria and requirements to ensure proper consideration of flaws in the outer surface of a piping weld when conducting a UT examination from the inside surface of the piping weld.

10 CFR 50.55a(b)(2)(xxiii) - IWA-4461.4.2 Evaluation of Thermally Cut Surfaces

The proposed modification, 50.55a(b)(2)(xxiii), would supplement the use of the new provisions in IWA-4461.4.2 to require that the tests and inspections and the analysis specified in IWA-4461.4.2(a)(1) through (5) be considered by an evaluation. Sub-section IWA-4461.4.2 was added in the 2001 Edition to allow the elimination of mechanical processing of a thermally cut surface when, due to field conditions, mechanical processing is deemed impractical. Thermal cutting is a process for removing metal from a weld or base metal. Thermal cutting includes processes such as oxy-acetylene cutting, plasma-arc cutting, laser-beam cutting, and air-carbon arc gouging. These processes can leave cracks, stress risers, very rough surfaces, or heavy oxidation on the cut surface that can seriously degrade the material toughness or corrosion resistance of the material or leave large residual stresses in the material. If the thermally disturbed surface is not mechanically processed, such as, grinding, machining, or filing, or properly evaluated, these defects could be incorporated into the final weld, possibly compromising the integrity and quality of the weld.

The provisions in IWA-4461.4.2 allow the elimination of mechanical processing of thermally cut surfaces provided that the tests and inspections and the analysis specified in IWA-4461.4.2(a)(1) through (5) are considered by an evaluation. It is unclear if Code provisions that state that specific items that must be considered by evaluation are intended to be mandatory or optional requirements. The provisions specified in IWA-4461.4.2(a)(1) through (5) specify the appropriate tests and inspections and analysis for eliminating the mechanical processing of thermally cut surfaces provided that all these actions are performed. These actions are necessary to ensure proper evaluation of cracks, stress risers, oxidation, or other contamination of cut surfaces that could exist in the final weld which would seriously degrade the material toughness or corrosion resistance of the material. Therefore, proposed paragraph (b)(2)(xxiii) would explicitly require that the tests and inspections, and the analysis specified in IWA-4461.4.2(a)(1) through (5) be performed whenever a thermally cut surface is not mechanically processed.

10 CFR 50.55a(b)(2)(xxv) - Mitigation of Flaws

The proposed modification, § 50.55a(b)(2)(xxv), would prohibit the use of the provisions in IWA-4340 when using the 2001 Edition and the 2002 and 2003 Addenda of Section XI of the ASME BPV Code. IWA-4340 was added in the 2000 Addenda to provide requirements for the mitigation of defects by "modification." Paragraph IWA-4340 allows a defect to remain in a component provided that the defect can be eliminated from the pressure boundary by "modification."

The scope of the activity envisioned or permitted by this subsubarticle is not clear. The subsubarticle does not provide limitations on the applicability of its provisions to specific ASME Classes or components. As written, this provision could be used in applications with widely varying safety significance and levels of difficulty in implementation, ranging from the elimination of a defect in a Class 1 item or component, such as a penetration of the lower head of the reactor vessel to the encapsulation of a defect on a straight section of Class 3 moderate energy piping. IWA-4340 has no prohibition on the number of times it can be used to mitigate the same defect. Therefore, if the flaw propagated “beyond the limits of the modification” implemented under the provisions of IWA-4340, a licensee could, for example, encapsulate the previous modification with another larger modification. This could result in unusual and unforeseeable design configurations.

IWA-4520(b)(2) exempts piping, pump and valve welding or brazing that does not penetrate the pressure boundary from any pressure test. Since the modification to mitigate the defect will become the new pressure boundary and the modification may be attached to the pressure boundary by welds that do not penetrate the pressure boundary, pressure testing may not be required. The NRC does not accept the elimination of pressure testing requirements for a modification that will function as a pressure boundary.

Since this subsubarticle does not provide specificity for the types of modifications or limitations on the applicability of its provisions to specific ASME Classes or items, the NRC is unable to determine whether the “modifications” under the provisions of this paragraph would maintain safety and ensure the protection of public health and safety.

IWA-4340(c) requires that each licensee define the successive examinations to be performed after the completion of the "modification." As currently stated, the purpose of the successive examinations is to monitor the flaw to detect propagation of the flaw beyond the limits of the modification and, when practicable, to validate the projected growth. The terminology “beyond the limits of the modification” needs to be more specifically defined. For example, it is not clear by these words if a flaw would be permitted to propagate outside the physical boundary of the “modification” if it had not reached the level of a defect. The NRC also does not agree with the inclusion of the “when practicable” limitation in IWA-4340(c). The flaw propagation must be validated to accurately predict when, or if, the flaw will become unacceptable. IWA-4340(c), as written, does not require that a licensee’s examination program predict propagation of the flaw such that the licensee would be able to identify, in advance, a flaw that is expected to propagate outside the area physically modified such that corrective action could be taken. In IWA-4340, each licensee would be responsible for determining the method and frequency of examinations to be performed. In addition, each licensee would be permitted to define the acceptance criteria for these examinations. The ASME Code currently contains rules for successive examination of flaws left in service, as addressed in IWB-2420,

and requirements for that more stringent examinations for defects left in service. However, IWA-4340(c) does not define an examination process which would require examinations at a frequency, based on flaw propagation rate, that would require a licensee to identify in advance when a flaw is projected to propagate outside the physical configuration of the "modification." Therefore, the NRC is unable to determine whether the examinations and acceptance criteria prepared by each licensee under the provisions of this paragraph would ensure the protection of public health and safety because the acceptance limits specified as "beyond the limits of the modification" are ambiguous. Furthermore, the provisions of IWA-4340(c) could result in inconsistent examination requirements and acceptance criteria being applied at different facilities for the same type of mitigating action.

For the reasons stated above, the NRC is proposing to prohibit the use of IWA-4340 when using the 2001 Edition and the 2002 and 2003 Addenda.

10 CFR 50.55a(b)(2)(xxvi) - Pressure Testing Mechanical Joints

The proposed modification, 10 CFR 50.55a(b)(2)(xxvi), would supplement the test provisions in IWA-4540 of the 2001 Edition and the 2002 and 2003 Addenda of Section XI of the ASME BPV Code to require that Class 1, 2, and 3 mechanical joints be pressure tested in accordance with IWA-4540(c) of the 1998 Edition of Section XI. The requirements to pressure test Class 1, 2, and 3 mechanical joints undergoing repair and replacement activities were deleted in the 1999 Addenda of Section XI. Therefore, pressure testing of mechanical joints is no longer required by Section XI when performing IWA-4000 repair and replacement activities. The NRC is proposing to retain the pressure and testing requirements in IWA-4540(c) of the 1998 Edition when using the 2001 Edition through 2003 Addenda because there is no justification for eliminating the requirements for pressure testing Class 1, 2, and 3 mechanical joints. Pressure testing of mechanical joints affected by repair and replacement activities is necessary to ensure and verify structural and leakage integrity of the pressure boundary. The NRC is requesting that comments on the proposed rule provide additional information that can be used to justify the elimination of the pressure tests requirements in IWA-4540(c) of the 1998 Edition of Section XI.

10 CFR 50.55a(b)(2)(xxvii) - Removal of Insulation

The proposed modification, § 50.55a(b)(2)(xxvii), would supplement a new provision in IWA-5242(a) to require that insulation be removed when conducting visual examinations on bolting susceptible to stress corrosion cracking. The purpose of the provisions in IWA-5242 is to periodically examine bolted connections for evidence of boric acid leakage. The 17-4 PH stainless steels and the 410 stainless steels installed in borated systems are susceptible to stress corrosion cracking when aged at a temperature below 1100°F or have a hardness above R_c 30. A-286 stainless steel studs or bolts are also susceptible to stress corrosion cracking when preloaded to 100,000 pounds per square inch or higher. Thus, the insulation must be removed to visually examine these bolting materials. Code Case N-616, "Alternative Requirements for VT-2 Visual Examination of Classes 1, 2, and 3 Insulated Pressure Retaining Bolted Connections Section XI, Division 1," included, among other things, a provision allowing that bolted material to be examined without removing the insulation, which could prevent identification of signs of degraded bolting and boric acid leakage. Code Case N-616 and IWA-5242(a) (2003 Addenda) allow periodic VT-2 examinations be performed without having to remove insulation from corrosion resistant bolting that has a chromium content greater than or

equal to 10 percent installed in borated systems. The NRC conditionally accepted the use of Code Case N-616, by requiring that insulation must be removed to examine 17-4 PH stainless steel or 410 stainless steel studs or bolts aged at a temperature below 1100°F or with a hardness above R_c 30; and A-286 stainless steel studs or bolts preloaded to 100,000 pounds per square inch or higher. The proposed modification in (b)(2)(xvii) would impose the same examination requirements on IWA-5245(a). Code Case N-616 was ultimately incorporated into IWA-5242(a) in the 2003 Addenda of Section XI of the ASME BPV Code.

10 CFR 50.55a(b)(2)(xxviii) - Reconciliation of Quality Assurance Requirements

The proposed modification, § 50.55a(b)(2)(xxviii), would supplement a new provision in IWA-4226.1 to require that repair/replacement components be manufactured, procured, and controlled as safety-related under a quality assurance program meeting the requirements of Appendix B to 10 CFR Part 50. The purpose of IWA-4226.1 (2003 Addenda) and Code Case N-554-2, “Alternative Requirements for Reconciliation of Replacement Items and Addition of New Systems, Section XI, Division 1," is to provide requirements for reconciling design requirements when using later editions of a construction code or Section III. However, IWA-4226.1 and Code Case N-554-2 do not require reconciliation of the quality assurance requirements for certification, Code symbol stamping, data reports, and authorized Inspection. For example, a component manufactured in a commercial shop that does not have a quality assurance program could be used in a safety-related application without having to reconcile quality assurance requirements. The NRC conditionally accepted the use of Code Case N-554-2, by requiring that repair/replacement components be manufactured, procured, and controlled as safety-related under a quality assurance program meeting the requirements of Appendix B to 10 CFR Part 50. The proposed modification in (b)(2)(xviii) would impose the same quality assurance requirements on IWA-4226.1.

2.3 ASME OM Code

The proposed revision to § 50.55a(b)(3) would incorporate by reference the 2001 Edition and the 2002 and 2003 Addenda of the ASME OM Code.

The proposed amendment would revise the existing modifications and limitations for quality assurance, motor-operated valve testing, Subsection ISTD, and exercise interval for manual valves in §§ 50.55a(b)(3)(i), 50.55a(b)(3)(ii), 50.55a(b)(3)(v), and 50.55a(b)(3)(vi), respectively, to apply to the 2001 Edition through 2003 Addenda of the ASME OM Code. The modifications and limitations in §§ 50.55a(b)(3)(i), 50.55a(b)(3)(ii), 50.55a(b)(3)(v), and 50.55a(b)(3)(vi) would continue to apply to the 2001 Edition through 2003 Addenda of ASME OM Code because the earlier Code provisions that these regulations are based on were not revised in the 2001 through 2003 Addenda of the ASME OM Code to address the underlying issues which led to the NRC to impose the modifications and limitations on the ASME Code provisions.

10 CFR 50.55a(b)(3)(i) - Quality Assurance

The proposed amendment would revise the existing quality assurance requirements in § 50.55a(b)(3)(i) to state that ISTA-1500 is applicable when using the 1998 Edition and later editions and addenda of the ASME OM Code. Subsections of the ASME OM Code were renumbered in the 1998 Edition; therefore, § 50.55a(b)(3)(i) would be revised to account for the renumbering. The proposed revision does not change requirements in a substantive manner.

10 CFR 50.55a(b)(3)(iii) - Code Case OMN-1

The proposed amendment would revise § 50.55a(b)(3)(iii) to eliminate the authorization to use Code Case OMN-1. The existing regulation in § 50.55a(b)(3)(iii) authorizes the use of Code Case OMN-1. Code Case OMN-1 is now authorized by Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code." Regulatory Guide 1.192 was incorporated by reference into § 50.55a in a final rule dated July 8, 2003 (68 FR 40469). Thus, it is no longer necessary to authorize the use of Code Case OMN-1 in § 50.55a(b)(3)(iii) because this code case is now included in Regulatory Guide 1.192.

10 CFR 50.55a(b)(3)(iv) - Check Valve Monitoring Program

The proposed amendment would revise the existing modification for the check valve monitoring program in § 50.55a(b)(3)(iv) to limit its application to the 1995 edition through 2002 Addenda of the ASME OM Code. The modification in § 50.55a(b)(3)(iv) would not apply to the 2003 Addenda of the ASME OM Code because the earlier Code provisions that this regulation was based on were revised in the 2003 Addenda of the ASME OM Code to address the underlying issues which led to the NRC to impose the modification of the ASME Code provisions. The check valve monitoring program requirements in Appendix II of the 2003 Addenda of the ASME OM Code are equivalent to the check valve monitoring program requirements in § 50.55a(b)(3)(iv).

3. Section-by-Section Analysis

Paragraph (b)(1). This paragraph would require new applicants for a nuclear power plant submitting an application for a construction permit under 10 CFR Part 50 or design certification under 10 CFR Part 52 after the effective date of this rule, to use the 2001 Edition and the 2002 and 2003 Addenda of Section III, Division 1, of the ASME BPV Code for the design and construction of the reactor coolant pressure boundary and Quality Group B and C components. This paragraph would also require that existing modifications and limitations for weld leg dimensions and independence of inspection in §§ 50.55a(b)(1)(ii) and 50.55a(b)(1)(v), respectively, apply to the 2001 Edition through 2003 Addenda of Section III, Division 1, of the ASME BPV Code.

Paragraph 50.55a(b)(1)(iii). This paragraph would specify that the existing limitation for seismic design in § 50.55a(b)(1)(iii) applies only to the 1994 Addenda through 2000 Addenda of Section III, Division 1, of the ASME BPV Code. It would not apply to the 2001 Edition and 2002 and 2003 Addenda.

Paragraph 50.55a(b)(1)(vi). This paragraph would allow the use of the alternative method for evaluating reversing dynamic building filtered loads and seismic loads in the 2001 Edition and the 2002 and 2003 Addenda of Section III Division 1, of the ASME BPV Code subject to modifications and limitations. Paragraph (b)(1)(vi)(A) would disallow the use of the alternative method for evaluating reversing dynamic loads for piping subject to loads generated by reflected waves caused by flow transients in NB-3200, NB-3600, NC-3600, and ND-3600. Paragraph (b)(1)(vi)(B) would disallow the use of the alternative provisions for performing an inelastic analysis for evaluating reversing dynamic loads in NB-3228.6. Paragraph (b)(1)(vi)(C) would disallow the use of the equation for evaluating reversing dynamic loads from other design basis loadings for Level A and B service limits in NC-3653.2(d) and ND-3653.2(d). Paragraph (b)(1)(vi)(D) would disallow the use of Appendix N in applications when Appendix N linear elastic response spectrum analysis provisions are less conservative than licensing basis linear elastic response spectrum analysis provisions. Paragraph (b)(1)(vi)(E) would disallow the use of the B_2' stress indices specified in ND-3655(b)(3), and require that the allowable B_2' stress indices specified in NB-3656(b)(3) and NC-3655(b)(3) be used instead of the allowable B_2' stress indices specified in ND-3655(b)(3). Paragraph (b)(1)(vi)(F) would allow the use of an allowable stress limit of $6S_M$ in the evaluation of the range of resultant moment only when it is demonstrated that the global piping system response to the anchor movement does not create significant inelastic strain concentrations when using the provisions in NB-3656(b)(4), NC-3655(b)(4), and ND-3655(b)(4). A demonstration that the anchor movement does not create significant inelastic strain concentrations would not be required if an allowable stress limit of $3S_M$ is used instead of $6S_M$ in the evaluation of the range of resultant moment.

Paragraph 50.55a(b)(1)(vii). This paragraph would not approve the use of Subsection NH of the 2001 Edition and 2002 and 2003 Addenda of Section III, and also withdraw the prior NRC approval of Subsection NH of the 1995 through 2000 Addenda of Section III. Future reactor designs may not employ the special design methodologies for high temperatures described in Subsection NH absent specific approval by the NRC.

Paragraph (b)(2). This paragraph would require licensees of nuclear power plants to use the 2001 Edition and the 2002 and 2003 Addenda of Section XI, Division 1, of the ASME

BPV Code when updating their inservice inspection programs in their subsequent 120-month interval under § 50.55a(g)(4)(ii). Existing modifications and limitations for quality assurance, Class 1 piping, underwater welding, reconciliation of quality requirements, certification of nondestructive examination personnel, substitution of alternative method, and Table IWB-2500-1 examination requirements in §§ 50.55a(b)(2)(x), 50.55a(b)(2)(xi), 50.55a(b)(2)(xii), 50.55a(b)(2)(xvii), 50.55a(b)(2)(xviii), 50.55a(b)(2)(xix), and 50.55a(b)(2)(xxi), respectively, would apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code. This paragraph would also add Footnote 10 which states that enhanced reactor pressure vessel head inspections have been imposed by order at pressurized water reactors, and that the NRC will determine the need for supplemental inspection requirements to be imposed through rulemaking.

Paragraph (b)(2)(viii). This paragraph would require that the existing modification for examination of concrete containments in § 50.55a(b)(2)(viii) apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code, and that a new modification, § 50.55a(b)(2)(viii)(G), apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code.

Paragraph (b)(2)(viii)(G). This new paragraph would require that corrosion protection medium be restored in accordance with the quality assurance program requirements specified in IWA-1400 following IWL-4000 repair and replacement activities conducted on concrete containment post-tensioning systems when using the 2001 Edition through 2003 Addenda of Section XI.

Paragraph (b)(2)(ix). This paragraph would require that the existing modification for examination of metal containments and the liners of concrete containments in § 50.55a(b)(2)(ix) apply to the 2001 Edition through 2003 Addenda of Section XI, Division 1, of the ASME BPV Code with the exception that the visual examination requirements specified in the existing modification § 50.55a(b)(2)(ix)(B) would not apply to the 2003 Addenda of Section XI.

Paragraph (b)(2)(xiii). This paragraph would eliminate the authorization of Code Case N-513.

Paragraph (b)(2)(xiv). The paragraph would require that the existing modification for Appendix VIII personnel qualification in § 50.55a(b)(2)(xiv) apply to the 2001 Edition through 2003 Addenda of Section IX, Division 1, of the ASME BPV Code. The paragraph would also correct an oversight by clarifying that the annual practice requirements in VII-4240 of Appendix VII of Section XI may be used.

Paragraph (b)(2)(xv). This paragraph would require the existing modification for Appendix VIII specimen set and qualification requirements in § 50.55a(b)(2)(xv) to apply to the 2001 Edition of Section XI, Division 1, of the ASME BPV Code.

Paragraph (b)(2)(xv)(C)(1). This paragraph would specify that the flaw depth sizing provisions in Subparagraph 3.2(c) of Supplement 4 to Appendix VIII are not applicable when Appendix VIII is implemented in accordance with the provisions in § 50.55a(b)(2)(xv).

Paragraph (b)(2)(xv)(J). The paragraph would eliminate the authorization of Code Case N-552. Paragraph (b)(2)(xv)(J) would be reserved for future use.

Paragraph (b)(2)(xx). This paragraph would limit the existing modification for system leakage tests in § 50.55a(b)(2)(xx) to apply to the 1997 Addenda through 2001 Addenda of Section XI, Division 1, of the ASME BPV Code.

Paragraph (b)(2)(xxii). This new paragraph would prohibit the use of IWA-2220 of Section XI, 2001 Edition and the 2002 and 2003 Addenda, which allows the performance of a surface examination using an ultrasonic examination method. Licensees would be required to continue to conduct surface examinations using a magnetic particle, liquid penetrant, or eddy current method.

Paragraph (b)(2)(xxiii). This new paragraph would require that the tests and inspections and the analysis specified in IWA-4461.4.2(a)(1) through (5) be considered by an evaluation when the mechanical processing of thermally cut surfaces is eliminated in accordance with IWA-4461.4.2 of Section XI, 2001 Edition and the 2002 and 2003 Addenda.

Paragraph (b)(2)(xxiv). This new paragraph would prohibit the use of Appendix VIII and the supplements to Appendix VIII and Article I-3000 of the 2002 and 2003 Addenda of Section XI of the ASME BPV Code. Licensees would be required to implement Appendix VIII and its supplements in accordance with either the 1995 through 2001 Edition of Section XI, or the alternative provided in paragraph (b)(2)(xv).

Paragraph (b)(2)(xxv). This new paragraph would prohibit the use of IWA-4340 of Section XI of the ASME BPV Code, 2001 Edition and the 2002 and 2003 Addenda, that allows the mitigation of defects by modification.

Paragraph (b)(2)(xxvi). This new paragraph would require that the Class 1, 2, and 3 mechanical joint pressure and test provisions in IWA-4540(c) of the 1998 Edition of Section XI of the ASME BPV Code be used when repair and replacement activities are conducted in accordance with the 2001 Edition and the 2002 and 2003 Addenda of Section XI of the ASME BPV Code.

Paragraph (b)(2)(xxvii). This new paragraph would require that the insulation be removed from 17-4 PH or 410 stainless steel studs or bolts aged at a temperature below 1100°F or having a hardness above R_c 30, and from A-286 stainless steel studs or bolts preloaded to 100,000 pounds per square inch or higher when performing visual examinations in accordance with IWA-5242 of the 2003 Addenda of Section XI of the ASME BPV Code.

Paragraph (b)(2)(xxviii). This new paragraph would require that repair/replacement components be manufactured, procured, and controlled as safety-related under a quality assurance program meeting the requirements of Appendix B to 10 CFR Part 50 when using IWA-4226.1 of the 2003 Addenda of Section XI of the ASME BPV Code.

Paragraph (b)(3). This paragraph would require licensees of nuclear power plants to use the 2001 Edition and the 2002 and 2003 Addenda of the ASME OM Code when updating their inservice test programs in their subsequent 120-month inspection intervals under § 50.55a(f)(4)(ii). This paragraph would also require the existing modifications and limitations for quality assurance, motor-operated valve testing, Subsection ISTD, and exercise interval for manual valves in §§ 50.55a(b)(3)(i), 50.55a(b)(3)(ii), 50.55a(b)(3)(v), and 50.55a(b)(3)(vi), respectively, to apply to the 2001 Edition through 2003 Addenda of the ASME OM Code.

Paragraph 50.55a(b)(3)(i). This paragraph would reconcile the different subsection and paragraph numbers of the ASME OM Code that were renumbered in the 1998 Edition and subsequent editions and addenda. There are no substantive changes in this paragraph.

Paragraph (b)(3)(iii). This paragraph rule would eliminate the authorization Code Case OMN-1. Paragraph (b)(3)(iii) would be reserved for future use.

Paragraph (b)(3)(iv). This paragraph would limit the existing modification for the check valve monitoring program in § 50.55a(b)(3)(iv) to apply to the 1995 edition through 2002 Addenda of the ASME OM Code.

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 bases 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 Code for inservice inspection 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 bases 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).

The NRC has completed an evaluation of Subsections IWB, IWC, IWD, IWE, IWF, and IWL of Section XI of the ASME BPV Code (2001 Edition and the 2002 and 2003 Addenda) as part of the § 50.55a amendment process to determine if the conclusions of the Gall Report are also applicable for AMPs that rely upon the ASME Codes edition and addenda which are proposed to be incorporated by reference into § 50.55a by this proposed rule. NRC finds that the 2001 Edition and 2002 and 2003 Addenda of Sections III and XI of the ASME BPV Code are acceptable 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 (2001 Edition and the 2002 and 2003 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 (2001 Edition and the 2002 and 2003

Addenda) as acceptable alternatives to the AMPs described in the GALL report. However, a licensee must assess and follow applicable NRC requirements with regard to changes to its licensing basis.

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 2001 Edition and the 2002 and 2003 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 proposed *Federal Register* Notice, proposed Regulatory Analysis, and proposed Environmental Assessment can be obtained from Stephen Tingen, Division of Engineering, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 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
Order EA-03-009	X	X	ML 030380470	X
SECY-03-0078	X	X	ML 030700408	X
Proposed Federal Register Notice	X	X	ML 031740349	X
Proposed Regulatory Analysis	X	X	ML 031740373	X
Proposed Environmental Assessment	X	X	ML 031740388	X

6. Plain Language

The Presidential memorandum dated June 1, 1998, entitled, "Plain Language in Government Writing," directed that the Federal government's writing must be in plain language. This memorandum was published on June 10, 1998 (63 FR 31883). The NRC requests comments on this proposed rule specifically with respect to the clarity and effectiveness of the language used. Comments should be sent to the address listed under the **ADDRESSES** caption above.

7. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104-113, requires agencies to 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. 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. 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.

The NRC is proposing to amend its regulations to incorporate by reference a more recent edition and addenda of Sections III and XI of the ASME BPV Code and ASME OM Code, for construction, inservice inspection, and inservice testing of nuclear power plant components. 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 licensees of nuclear power plants) participate. In a staff requirements memorandum dated September 10, 1999, the Commission indicated it intent that a rulemaking identify all portions of an adopted voluntary consensus standard which are not adopted and to provide a justification for not adopting such portions. The portions of the ASME BPV Code and OM Code which the NRC proposes not to adopt, or to partially adopt, are identified in Section 2 of the preceding section and the draft regulatory analysis. The justification for not adopting portions of the ASME BPV Code, as set forth in these statements of consideration and the draft regulatory

analysis for this proposed rule, satisfy the requirements of Section 12(d)(3) of Pub. L. 104-113, Office of Management and Budget (OMB) Circular A-119, and the Commission's direction in the staff requirements memorandum dated September 10, 1999.

In accordance with the National Technology Transfer and Advancement Act of 1995 and OMB Circular A-119, the NRC is requesting public comment regarding whether other national or international consensus standards could be endorsed as an alternative to the ASME BPV Code and the ASME OM Code.

8. 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, if adopted, would not be a major Federal action significantly affecting the quality of the human environment, and therefore, an environmental impact statement is not required.

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

The determination of this draft environmental assessment is that there will be no significant off-site impact to the public from this action. However, the NRC is seeking public comment of the draft environmental assessment. Section 5 of this notice describes how to obtain a copy of the draft environmental assessment. Comments may be submitted to the NRC as indicated under the **ADDRESSES** heading.

The NRC has sent a copy of the draft environmental assessment and this proposed rule to every State Liaison Officer and requested their comments on the environmental assessment.

9. Paperwork Reduction Act Statement

This proposed rule decreases the burden on licensees for recordkeeping requirements related to examinations, tests, and repair and replacement activities. The industry annual public burden reduction for this information collection is estimated at 713 hours. Because the burden reduction for this information collection is insignificant, Office of Management and Budget (OMB) clearance is not required. Existing requirements were approved by the OMB, approval number 3150-0011.

Public Protection Notification

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

10. Regulatory Analysis

The NRC has prepared a draft regulatory analysis on this proposed rule. The draft analysis is available for review in the NRC's Public Document Room, located in One White Flint North, 11555 Rockville Pike, Rockville, Maryland. Section 5 of this notice describes how to obtain a copy of the draft regulatory analysis. The Commission requests public comment on the draft analysis and comments may be submitted to the NRC as indicated under the **ADDRESSES** heading.

11. Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission certifies that this proposed amendment will not, if promulgated, have a significant economic impact on a substantial number of small entities. This proposed amendment 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 Small Business Size Standards set forth in regulations issued by the Small Business Administration at 13 CFR Part 121.

12. 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 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 OM Code. This proposed rule would incorporate by reference the 2001 Edition and the 2002 and 2003 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 more recent editions and addenda of Section III, Division 1, of the ASME BPV Code does 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 more recent edition and addenda of Section III, Division 1, does not constitute a "backfitting" as defined in § 50.109(a)(1).

Incorporation by reference of more recent editions and addenda of Section XI, Division 1, of the ASME BPV Code and the ASME OM Code affect the inservice inspection (ISI) and inservice testing (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 Code (Section XI) and OM Code. 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.

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 Code or OM Code provision but merely retains the current existing requirement, prohibits the use of the later Code provision, limits the use of the later Code provision, or supplements the provisions in a later Code, 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 and regulatory analysis for the rule. Exceptions in this proposed rule either retain current existing requirements, prohibit the use of the later Code provision, limit the use of the later Code provision, or supplement the provisions in a later Code.

(2) When an NRC exception relaxes an existing ASME BPV Code or OM Code provision but does not prohibit a licensee from using the existing Code provision the Backfit Rule does not apply because the NRC is not imposing new requirements. There are no such exceptions in this proposed rule.

(3) Modifications and limitations imposed during previous routine updates of § 50.55a have established a precedent 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), September 22, 1999 (64 FR 51370), and September 26, 2002 (67 FR 60520)). The application of the backfit requirements to modifications and limitations in the current proposed rule are consistent with the application of backfit requirements to modifications and limitations in previous rules. Since the modifications and limitations in the current proposed 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.

There are some circumstances in which the endorsement of a later ASME BPV Code or OM Code introduces a backfit. In these cases, the NRC would perform a backfit analysis in accordance with § 50.109. These include the following–

(1) When the NRC endorses a later provision of the ASME BPV Code or OM Code that takes a substantially different direction from the 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 in this proposed rule which impose requirements involving a substantially different direction than existing requirements.

(2) When the NRC requires implementation of later ASME BPV Code 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 ultrasonic 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 in this proposed rule which require expedited implementation.

(3) When the NRC takes an exception to a ASME BPV Code or OM Code provision and imposes a requirement that is substantially different from the existing requirement as well as substantially different than the later Code. An example was the adoption of dissimilar metal piping weld UT examination coverage requirements in the final rule dated September 26, 2002 (67 FR 60529) that incorporated by reference in § 50.55a the 1997 though 2000 Addenda of Section XI. Dissimilar metal piping weld examination coverage requirements, although contained in the 1989 Edition, and earlier editions and addenda of Section XI, are not addressed in 1989 Addenda and later editions and addenda of Section XI. Therefore, the addition of dissimilar metal piping weld examination coverage requirements to the regulation was necessary. There are no such provisions in this proposed rule.

10 CFR 50.55a(b)(1)(vii) - Subsection NH

The proposed modification, § 50.55a(b)(1)(b)(vii), would, among other things, withdraw the prior NRC approval of Subsection NH of the 1995 through 2000 Addenda of Section III of

the ASME BPV Code. Subsection NH was added to Section III of the ASME BPV Code in the 1995 Addenda. At that time, the 1995 and 1996 Addenda of Subsection NH were inadvertently incorporated by reference in a final rule dated September 22, 1999 (64 FR 51370), and the 1997 through 2000 Addenda of Subsection NH were later inadvertently incorporated by reference in a final rule dated September 26, 2002 (67 FR 60520). The incorporation by reference of Subsection NH was inadvertent because the NRC was unaware that Subsection NH had been published in Section III and had not performed a technical review of the new subsection. Because the previous final rules that incorporated Subsection NH by reference affect only future combined license applicants and design certification applicants, and do not affect any existing licensees nor holders of design certificates, the backfit rule does not apply. The backfit rule was not intended to apply to every action which changes settled expectations. The backfit rule does not apply to rules that revise requirements for future combined license applicants and design certification applicants, even though such a rule may impact an applicant who was considering applying for a permit but had not done so yet. The backfit rule protects the permit holder, not the prospective applicant, or even the present applicant. For these reasons, the NRC concludes that the withdrawal of its approval of Subsection NH of the 1995 through 2000 Addenda of Section III does not constitute a backfit as defined in 10 CFR 50.109(a)(1), and a backfit analysis need not be prepared for this portion of the proposed amendment.

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 proposing to adopt 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(42 U.S.C. 5841). 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 sec. 204, 88 Stat. 1245 (42 U.S.C. 5844. sec. 50, 58, 50.91, and 50.92 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)(J) and (b)(3)(iii).

(b) revising the introductory text of paragraph (b)(1), paragraph (b)(1)(iii), the introductory text of paragraph (b)(2), the introductory text of paragraphs (b)(2)(viii) and (b)(2)(ix), paragraph (b)(2)(xiii), paragraph (b)(2)(xiv), and the introductory text of paragraph(b)(2)(xv), paragraph (b)(2)(xv)(C)(*1*), paragraph (b)(2)(xx), the introductory text of paragraph (b)(3), paragraph (b)(3)(i), and the introductory text of paragraph (b)(3)(iv).

(c) adding paragraphs (b)(1)(vi), (b)(1)(vii), (b)(2)(viii)(G), and (b)(2)(xxii) through (b)(2)(xxviii), and Footnote 10.

§ 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 2003 Addenda (Division 1), subject to the following limitations and modifications:

* * * * *

(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 2000 Addenda.

* * * * *

(vi) *Piping design criteria for reversing dynamic loads*. Use of the alternative method for evaluating reversing dynamic loads in the 2001 Edition and the 2002 and 2003 Addenda is allowed subject to the following conditions:

(A) The application of the alternative method for evaluating reversing dynamic loads to calculations for piping subject to loads generated by reflected waves caused by flow transients as delineated in NB-3200, NB-3600, NC-3600, and ND-3600 is prohibited.

(B) The use of NB-3228.6 is prohibited.

(C) NC-3653.1 and NC-3653.2 must be used instead of NC-3653.2(d). ND-3653.1 and ND-3653.2 must be used instead of ND-3653.2(d). Analyses using NC-3653.1 and ND-3653.1 must include pressure and reversing dynamic loads that are not required to be combined with nonreversing dynamic loads, and the allowable B_2‘ stress indices defined in NC-3655(b)(3) may be used in these analyses. The anchor motions associated with reversing dynamic loads must

be included as an anchor displacement in the definition of M_C when applying NC-3653.2 and ND-3653.2.

(D) When applying NB-3656(b)(3), NC-3655(b)(3), or ND-3655(b)(3), the linear elastic response spectrum analysis as defined by the licensing basis must be used whenever these provisions result in a more conservative calculation of M_E.

(E) The allowable B_2' stress indices specified in NB-3656(b)(3) and NC-3655(b)(3) must be used instead of the allowable B_2' stress indices specified in ND-3655(b)(3).

(F) The evaluation of anchor motions in NB-3656(b)(4), NC-3655(b)(4), and ND-3655(b)(4) must include a demonstration that the global piping system response to the anchor movement does not create inelastic strain concentrations. A demonstration that the global piping system response to the anchor movement does not create inelastic strain concentrations is not required if an allowable stress limit of $3S_M$ is used for the evaluation of the range of resultant moment.

(vii) *Subsection NH*. The provisions in Subsection NH, "Class 1 Components in Elevated Temperature Service," 1995 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(1) of this section, are not approved for use.

(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 2003 Addenda (Division 1), subject to the following limitations and modifications: [10]

* * * * *

(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 Subsection IWL, 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 Subsection IWL,1998 Edition through the 2000 Addenda shall apply paragraphs (b)(2)(viii)(E) and (b)(2)(viii)(F) of this section. Licensees applying Subsection IWL, 2001 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, shall apply paragraphs (b)(2)(viii)(E) through (b)(2)(viii)(G) of this section.

* * * * *

(G) Corrosion protection material must be restored following concrete containment post-tensioning system repair and replacement activities in accordance with the quality assurance program requirements specified in IWA-1400.

(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 Subsection IWE, 1998 Edition through the 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. Licensees applying Subsection IWE,

2001 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, shall satisfy the requirements of paragraphs (b)(2)(ix)(A) and (b)(2)(ix)(F) through (b)(2)(ix)(I) of this section.

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(xiii) *Mechanical clamping devices*. Licensees may use the provisions of Code Case N-523-1, "Mechanical Clamping Devices for Cass 2 and 3 Piping." Licensee choosing to apply Code Case N-523-1 shall apply all of its provisions.

(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 Appendix 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 2001 Edition. Licensees choosing to apply these provisions shall apply all of the following provisions under this paragraph except for those in § 50.55a(b)(2)(xv)(F) which are optional.

* * * * *

(C) * * *

(*1*) A depth sizing requirement of 0.15 inch RMS must be used in lieu of the requirements in Subparagraphs 3.2(a) and 3.2(c), and a length sizing requirement of 0.75 inch RMS must be used in lieu of the requirement in Subparagraph 3.2(b).

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(J) [Reserved]

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(xx) *System leakage tests*. When performing system leakage tests in accordance IWA-5213(a), 1997 Addenda through the 2001 Edition, 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.

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(xxii) *Surface Examinations*. The use of the provisions in IWA-2220, "Surface Examination," of Section XI, 2001 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, that allow the use of an ultrasonic examination method, is prohibited.

(xxiii) *Evaluation of Thermally Cut Surfaces.* The tests and inspections and the analysis specified in IWA-4461.4.2(a)(1) through (5) of the 2001 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section must be performed whenever a thermally cut surface is not mechanically processed.

(xxiv) *Incorporation of the Performance Demonstration Initiative and Addition of Ultrasonic Examination Criteria*. The use of Appendix VIII and the supplements to Appendix VIII and Article I-3000 of Section XI of the ASME BPV Code, 2002 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section, is prohibited.

(xxv) *Mitigation of Flaws.* The use of the provisions in IWA-4340, "Mitigation of Defects by Modification," of Section XI, 2001 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section are prohibited.

(xxvi) *Pressure Testing Classes 1, 2, and 3 Mechanical Joints*. The repair and replacement activity provisions in IWA-4540(c) of the 1998 Edition of Section XI for pressure testing Class 1, 2, and 3 mechanical joints must be applied when using the 2001 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section.

(xxvii) *Removal of Insulation*. When performing visual examinations in accordance with IWA-5242, 2003 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of the section, insulation must be removed from 17-4 PH or 410 stainless steel studs or bolts aged at a temperature below 1100°F or having a hardness above R_c 30, and from A-286 stainless steel studs or bolts preloaded to 100,000 pounds per square inch or higher. If insulation is removed from a bolted connection to perform a VT-2 examination with the system depressurized in accordance with IWA-5242(a), a system pressure test and VT-2 examination must be performed after the insulation is reinstalled.

(xxviii) *Reconciliation of Quality Assurance Requirements*. Components used for repair/replacement must be manufactured, procured, and controlled as a safety-related component under a quality assurance program meeting the requirements of Appendix B to 10 CFR Part 50 when using IWA-4226.1, 2003 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of the 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 2003 Addenda subject to the following limitations and modifications:

(i) *Quality Assurance*. When applying editions and addenda of the OM Code, the requirements of NQA-1, "Quality Assurance Requirements for Nuclear Facilities," 1979 Addenda, are acceptable as permitted by ISTA 1.4 of the 1995 Edition through 1997 Addenda or ISTA-1500 of the 1998 Edition through the latest edition and addenda incorporated by reference in paragraph (b)(3) of this section, provided the licensee uses its

10 CFR Part 50, Appendix B, quality assurance program in conjunction with the OM Code requirements. Commitments contained in the licensee's quality assurance program description that are more stringent than those contained in NQA-1 govern OM Code activities. If NQA-1 and the OM Code do not address the commitments contained in the licensee's Appendix B quality assurance program description, the commitments must be applied to OM Code activities.

* * * * *

(iii) [Reserved]

(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 (b)(3)(iv)(A), (b)(3)(iv)(B), and (b)(3)(iv)(C) of this section. Licensees applying Appendix II, 1998 Edition through the 2002 Addenda, shall satisfy the requirements of (b)(3)(iv)(A), (b)(3)(iv)(B), and (b)(3)(iv)(D) of this section.

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Footnotes to § 50.55a:

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[10] Supplemental inservice inspection requirements for reactor vessel pressure heads have been imposed by Order EA-03-09 issued to licensees of pressurized water reactors. The NRC expects to develop revised supplemental inspection requirements, based in part upon a review of the initial implementation of the order, and will determine the need for incorporating the revised inspection requirements into 10 CFR 50.55a by rulemaking.

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Dated at Rockville, Maryland this 22nd day of December 2003.

For the U.S. Nuclear Regulatory Commission.

/RA/
William D. Travers
Executive Director For Operations.

ENVIRONMENTAL ASSESSMENT OF AMENDMENT TO 10 CFR 50.55a, "CODES AND STANDARDS"

Incorporation by Reference - 2001 Edition and 2002 and 2002 Addenda of ASME BPV AND OM Code

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 51, this document presents the findings of the U.S. Nuclear Regulatory Commission's (NRC) environmental assessment of a proposed rule to incorporate by reference in 10 CFR 50.55a the 2001 Edition and the 2002 and 2003 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).

NRC's regulations for implementing Section 102(2) of the National Environmental Policy Act of 1969 (NEPA), as amended, are contained in Subpart A of 10 CFR Part 51. These regulations require that an environmental impact statement or an environmental assessment be prepared for all licensing and regulatory actions that are not classified as "categorical exclusions" in accordance with 10 CFR 51.22(c) and are not identified in 10 CFR 51.22(d) as other actions not requiring environmental review.

Identification of the Action

This proposed action will amend NRC regulations in § 50.55a to specify the use of the most up-to-date technologies and methods for design, construction, inservice inspection (ISI), and inservice testing (IST) of nuclear power plants components. This action proposes to incorporate by reference the following: (1) the 2001 Edition and the 2002 and 2003 Addenda of Section III, Division 1, "Rules for Construction of Nuclear Power Plant Components," of the ASME BPV Code; (2) the 2001 Edition and the 2002 and 2003 Addenda of Section XI, Division 1, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the ASME BPV Code; and (3) the 2001 Edition and the 2002 and 2003 Addenda of the ASME OM Code. This proposed action will accord the provisions in the 2001 Edition and the 2002 and 2003 Addenda of the ASME BPV Code and OM Code the same legal status as the earlier editions and addenda of the ASME BPV Code and OM Code that have been incorporated by reference in § 50.55a.

Need for the Action

The National Technology Transfer and Advancement Act of 1995, Public Law 104-113, requires agencies to 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. The ASME BPV Code and OM Code are national consensus standards developed by participants with broad and varied interests, in which all interested parties (including the NRC and licensees of nuclear power plants) participate. New editions of the ASME BPV Code and OM Code are issued every 3 years. Addenda to the editions are issued yearly except in years when a new edition is issued. It has been the NRC's practice to periodically review the revisions in each edition and addenda, and to periodically update § 50.55a to keep current the ASME Code editions and addenda incorporated by reference. It has also been the policy of the Commission to explicitly identify all portions that are not being

adopted, and justify why those portions of the ASME BPV Code and OM Code are not acceptable for use. Section 50.55a was most recently updated on September 26, 2002 (67 FR 60520) to incorporate by reference the 1998 Edition of the ASME BPV Code and OM Code, up to and including the 2000 Addenda.

Environmental Impacts of the Action

This rule applies only to Part 50 licensees of operating nuclear power reactors. The ASME Code has been revised on a continuing basis over the years to provide updated provisions for the design, construction, and ISI of pressure boundary components and the testing of pumps and valves in nuclear power plants. Typically, the successive editions and addenda of the ASME Code contain many new and revised Code provisions. Although some new and revised Code provisions have increased requirements and others have decreased requirements, the staff has generally considered the evolution of the ASME Code to result in a net improvement in the provisions for constructing and inspecting components and testing pumps and valves. Therefore, the NRC does not believe that this proposed rulemaking increases the probability or consequences of accidents; affects the types of effluents that might be released off-site; increases occupational exposure; or increases the probability of radiation exposure to the public. The NRC does not expect significant radiological impacts associated with this proposed action.

The NRC staff has identified one revision to Section XI that would result in a small reduction in occupational exposure. Paragraph IWA-5242 of Section XI of the ASME BPV Code (2003 Addenda) eliminated the requirement to remove insulation from bolted connections in borated systems when performing a system leakage test provided that the bolting is resistant to boric acid corrosion. This revision reduces occupational exposure because the installation/removal of insulation and the installation/removal of scaffolding to support the removal/installation of insulation are no longer required when bolting resistant to boric acid corrosion is installed in a borated system. It is estimated that this revision will eliminate the need to remove/install insulation and scaffolding for 10 bolted connections for each pressurized water reactor each 10-year ISI interval and that the occupational exposure to install/remove insulation and scaffolding for each bolted connection is 0.250 person-rem. The industry's annual occupational dose cost savings would be on the order of $34,500 (10 bolted connections X 0.250 person-rem X $2000 X 69 units ÷ 10 years).

This proposed rule does not increase the probability or consequences of accidents, does not involve a significant increase in the amounts or types of any effluents that may be released off site, and does not significantly increase occupational or public radiation exposures. Therefore, no significant radiological environmental impacts are associated with these changes. The proposed rule changes do not involve non-radiological plant effluents and have no other environmental impact. Therefore, no significant non-radiological environmental impacts are associated with this rulemaking.

Alternatives to the Action

As required by Section 102(2)(E) of the NEPA (42 U.S.C.A. 4332(2)(E)), the NRC has considered possible alternatives to the proposed action. The staff considered the following alternatives for the proposed rulemaking:

Alternative 1 - Take No Action

Most environmental assessments include a *status quo* option for the Commission's consideration; in this case, this would be considered a non-rulemaking alternative. However, the staff does not recommend that the Commission consider this alternative because the alternative conflicts with the instructions in a staff requirements memorandum dated April 13, 2000, directing the staff to continue the NRC's longstanding policy of updating § 50.55a to incorporate by reference newer editions and addenda to the ASME BPV Code and OM Code.

Alternative 2 - Incorporate by Reference a Later Edition and Addenda of the ASME Code

Alternative 2 consists of continuing the NRC's longstanding policy of periodically updating 10 CFR 50.55a to incorporate by reference newer editions and addenda to the ASME BPV Code and OM Code. This alternative provides a sound regulatory basis for NRC's approval of the generic use of a voluntary consensus standard that provides updated provisions for design, construction, and ISI of pressure boundary components and testing of pumps and valves in nuclear power plants. The staff will continue to prepare periodic rulemakings to keep the regulations current with the latest versions of the ASME BPV Code and OM Code.

Pursuing this alternative meets the NRC goal of maintaining safety by continuing to provide NRC approval of newer editions and addenda of the ASME BPV Code and OM Code. The proposed rulemaking does not change NRC's requirements in a significant manner. The proposed amendment, as delineated above, is expected to maintain the overall protection of public health and safety while updating the rules to be consistent with the latest methods for construction, ISI, and IST specified by the ASME Code. The NRC endorsement of more recent ASME Code editions and addenda should also increase public confidence as a result of the use of the most up-to-date technologies and methods for design, construction, ISI, and IST of nuclear power plants components. It also reduces unnecessary regulatory burden by eliminating the need for licensees to submit plant-specific relief requests to use later editions and addenda of the ASME BPV Code and OM Code and for NRC to review those submittals.

Alternative 3 - Discontinue the Use of the ASME Consensus Standard

Under this alternative, the staff would discontinue the use of the industry consensus standard developed by the ASME as a regulation for the design, construction, and inservice inspection of pressure boundary components and testing of pumps and valves in nuclear power plants. This alternative would require that staff develop a new separate regulation to be used in place of the editions and addenda of the ASME BPV Code and OM Code. However, the staff does not recommend that the Commission consider this alternative because this alternative is inconsistent with the National Technology Transfer and Advancement Act of 1995, which requires the use technical standards that are developed or adopted by voluntary consensus

standards bodies unless the agency finds that the use of an industry consensus standard is contrary to law or impracticable. Furthermore, the staff is not aware of any other national or international consensus standards that could be endorsed as an option to the ASME BPV Code and OM Code. The development of this alternative regulation would require a significant amount of staff resources over what is currently in the budget plan, and would also be required to be justified in accordance with the backfitting requirements in 10 CFR 50.109.

Agencies and Persons Consulted

The NRC is requesting the views of the States on the environmental assessment for the proposed rule. The NRC staff developed the proposed rule and this environmental assessment.

Finding of No Significant Impact

On the basis of the proposed environmental assessment, the Commission concludes that this action will not have a significant effect on the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the action.