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MERIT SYSTEMS PROTECTION BOARD

5 CFR Part 1201

Practices and Procedures

AGENCY: Merit Systems Protection Board.

ACTION: Interim rule.

SUMMARY: The Merit Systems Protection Board (MSPB or the Board) is amending its practices and procedures regulations to make clear that the Board may, in its discretion, include discussion of issues raised in an appeal in a nonprecedential Final Order.

DATES: *Effective date:* October 5, 2010. Submit written comments on or before November 4, 2010.

ADDRESSES: Send comments to William D. Spencer, Clerk of the Board, Merit Systems Protection Board, 1615 M Street, NW., Washington, DC 20419; (202) 653–7200; *fax:* (202) 653–7130; or *e-mail: mspb@mspb.gov.*

FOR FURTHER INFORMATION CONTACT: William D. Spencer, Clerk of the Board, Merit Systems Protection Board, 1615 M Street, NW., Washington, DC 20419; (202) 653–7200; *fax:* (202) 653–7130; or *e-mail: mspb@mspb.gov.*

SUPPLEMENTARY INFORMATION: This amendment, adding a new paragraph (c) to 5 CFR 1201.117, which reflects recent changes in the Board's internal procedures, is intended to give the parties greater insight into the reasoning supporting the Board's decision in a particular case without requiring the Board to issue a precedential decision. The Board believes that including more information in its nonprecedential decisions will be beneficial to both appellants and agencies because both parties will more fully understand the Board's reasoning and have added assurance that the Board fully considered their arguments on appeal.

This amendment to 5 CFR 1201.117 also revises paragraph (b) to make clear that the Board may issue a final decision and, when appropriate, order a date for compliance with that decision.

List of Subjects in 5 CFR Part 1201

Administrative practice and procedure.

■ Accordingly, the Board amends 5 CFR part 1201 as follows:

PART 1201—[AMENDED]

Authority: 5 U.S.C. 1204 and 7701, unless otherwise noted.

■ 1. Revise § 1201.117 to read as follows:

§ 1201.117 Board action on petition for review or reopening.

(a) In any case that is reopened or reviewed, the Board may:

(1) Issue a decision that denies or grants a petition for review, modifies or supplements an initial decision, or reopens an appeal, and decides the case;

(2) Hear oral arguments;

(3) Require that briefs be filed;

(4) Remand the appeal so that the judge may take further testimony or evidence or make further findings or conclusions; or

(5) Take any other action necessary for final disposition of the case.

(b) The Board may affirm, reverse, modify, supplement, or vacate the initial decision of a judge, in whole or in part. The Board may issue a final decision and, when appropriate, order a date for compliance with that decision.

(c) The Board may issue a final decision in the form of a Final Order or an Opinion and Order. In the Board's sole discretion, a Final Order may, but need not, include additional discussion of the issues raised in the appeal. All Final Orders are nonprecedential and may not be cited or referred to except by a party asserting issue preclusion, claim preclusion, collateral estoppel, res judicata, or law of the case. Only an Opinion and Order is a precedential decision of the Board, and an Opinion and Order may be appropriately cited or referred to by any party.

Dated: September 29, 2010.

William D. Spencer,

Clerk of the Board.

[FR Doc. 2010–24864 Filed 10–4–10; 8:45 am]

BILLING CODE 7400–01–P

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

[NRC 2009–0014]

RIN 3150–AI37

Domestic Licensing of Production and Utilization Facilities; Updates to Incorporation by Reference of Regulatory Guide

AGENCY: Nuclear Regulatory Commission (NRC).

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations to incorporate by reference the latest revisions of two previously incorporated regulatory guides (RGs) approving new and revised Code Cases published by the American Society of Mechanical Engineers (ASME). The RGs which are incorporated by reference are RG 1.84, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III," Revision 35, and RG 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 16. This action allows nuclear power plant licensees, and applicants for standard design certifications, standard design approvals, and manufacturing licenses under the regulations that govern license certifications, and approves the nuclear power plants to use the Code Cases listed in these RGs as alternatives to requirements in the ASME Boiler and Pressure Vessel (BPV) Code regarding the construction and inservice inspection (ISI) of nuclear power plant components. Concurrent with this action, the NRC is publishing a notice of the issuance and availability of the RGs in the **Federal Register**. As a result of these related actions, the Code Cases listed in these RGs are incorporated by reference into the NRC's regulations and are deemed to be legally-binding NRC requirements.

DATES: The rule is effective on November 4, 2010. The incorporation by reference of RG 1.84, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III," Revision 35 (July 2010), and RG 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 16 (July 2010) is approved by the Director of the Office

of the Federal Register as of November 4, 2010.

ADDRESSES: You can access publicly available documents related to this document using the following methods:

NRC's Public Document Room (PDR): The public may examine and have copied for a fee publicly available documents at the NRC's PDR, Public File Area O1 F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

NRC's Agencywide Documents Access and Management System (ADAMS): Publicly available documents created or received at the NRC are available electronically at the NRC's electronic reading room at *http://www.nrc.gov/reading-rm/adams.html*. From this page, the public can gain entry into 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's PDR reference staff at 1–800–397–4209, 301–415–4737, or by e-mail to *pdr.resource@nrc.gov.*

Federal Rulemaking Web site: Public comments and supporting materials related to this final rule can be found at *http://www.regulations.gov* by searching on Docket ID: NRC–2009–0014.

FOR FURTHER INFORMATION CONTACT: Manash K. Bagchi, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone 301–415–2905, or by e-mail *Manash.Bagchi@nrc.gov.*

SUPPLEMENTARY INFORMATION:

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I. Background

The ASME develops and publishes the ASME BPV Code, which contains requirements for the design, construction, and ISI of nuclear power plant components, and the *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code), which contains requirements for inservice testing (IST) of nuclear power plant components. In response to BPV and OM Code user requests, the ASME develops ASME Code Cases which provide alternatives to BPV and OM Code requirements under special circumstances.

The NRC approves and/or mandates the use of the ASME BPV and OM Code in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50.55a through the process of incorporation by reference. As such, each provision of the ASME Codes incorporated by reference into, and mandated by, 10 CFR 50.55a constitutes a legally-binding NRC requirement imposed by rule. As noted above, ASME Code Cases represent alternative approaches for complying with provisions of the ASME BPV and OM Codes. Accordingly, the NRC periodically amends § 50.55a to incorporate by reference NRC RGs listing new and revised[1] ASME Code Cases which the NRC approves for use as alternatives to the BPV Code and the OM Code. *See* 68 FR 40469 (July 8, 2003). It should be noted that for this particular rulemaking, RG 1.192, "Operations and Maintenance Code Case Acceptability, ASME OM CODE," is not being revised because there are no new or revised OM Code Cases considered by the NRC in this rulemaking. New and revised OM Code Cases published by the ASME since RG 1.192 was first issued, will be addressed in the next proposed amendment. This final rule will continue the NRC's practice of incorporating by reference the RGs listing the most current set of NRC-approved ASME Code Cases. ASME Code Cases may be approved for use, either unconditionally or with conditions stated in the relevant RGs. In developing the RGs, the NRC staff reviews ASME BPV and OM Code Cases, determines the acceptability of each Code Case, and publishes its findings in RGs. The RGs are revised periodically as new Code Cases are published by the ASME. The NRC incorporates by reference the RGs listing acceptable and conditionally acceptable ASME Code Cases into 10 CFR 50.55a. Currently, NRC RG 1.84, Revision 34, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III"; RG 1.147, Revision 15, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1;" and RG 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code" are incorporated into the NRC's regulations at 10 CFR 50.55a, Codes and standards.

II. Response to Public Comments

The NRC published a proposed rule that would incorporate by reference RG 1.84, Revision 35, and RG 1.147, Revision 16, on June 2, 2009, 74 FR 26303. On the same date, the NRC published a parallel notice of availability of draft regulatory guides and opportunity for public comment. *See* 74 FR 26440. The NRC provided a 75-day public comment period for both the proposed rule and the draft RGs, which ended on August 17, 2009.

A. Overview of Public Comments

The NRC received nineteen comment letters on the draft regulatory guides and three general comments on the proposed rule. The following table lists the commenters, their affiliation, and the accession number to locate each comment letter. In addition, the Code Cases for which each commenter submitted comments are listed. Several general comments were also received.

COMMENT LETTERS RECEIVED ON DRAFT: REGULATORY GUIDE 1.84, REVISION 35 (DG–1191); REGULATORY GUIDE 1.147, REVISION 16 (DG–1192); REGULATORY GUIDE 1.193, REVISION 3 (DG–1193)

Commenter No.	Name	Affiliation/abbreviation	ADAMS Accession No.
1	Raymond West	Private Citizen/RW N–513–2/N–513–3	ML091540204
2	Ronald Clow	DBA Xcel Energy/Xcel N–508–3/N–508–4	ML091700640

[1] ASME Code Cases can be categorized as one of two types: new and revised. A new Code Case provides for the first time an alternative to specific ASME Code provisions or addresses a new need. A revised Code Case is a revision (modification) to an existing Code Case to address, for example, technological advancements in examination techniques or to address NRC conditions imposed in one of the regulatory guides which have been incorporated by reference into 10 CFR 50.55a.

COMMENT LETTERS RECEIVED ON DRAFT: REGULATORY GUIDE 1.84, REVISION 35 (DG–1191); REGULATORY GUIDE 1.147, REVISION 16 (DG–1192); REGULATORY GUIDE 1.193, REVISION 3 (DG–1193)—Continued

Commenter No.	Name	Affiliation/abbreviation	ADAMS Accession No.
3	C.L. Funderburk	Dominion Resources Services, Inc./DRS N–513–2/N–513–3	ML091750096
4	Brian Erler	American Society of Mechanical Engineers/ASME N–71–18, N–416–4, N–504–4, N–513–2/N–513–3, N–661–1, N–702, N–747, N–751	ML092190138
5	Edward Gerlach	Private Citizen/EG Two general comments—N–416–4, N–504–4, N–638–4, N–661–1	ML092190139
6	Lee Goyette	Pacific Gas & Electric Company/PGE N–597–2	ML092190140
7	Charles Wirtz	ASME BPV Standards Committee on Nuclear Inservice Inspection/CW. N–619, N–648–1	ML092220042
8	Robert Sisk	Westinghouse Electric Company/WECRS N–655–1, N–757–1, N–759–2, N–782, N–759	ML092220043
9	Patrick O'Regan	Electric Power Research Institute/EPRI N–716	ML092240576
10	Kevin Hall	Private Citizen/KH N–716	ML092250165
11	James Riley	Nuclear Energy Institute/NEI General comment—N–504–4, N–508–3/N–508–4, N–597–2	ML092370059
12	R.M. Krich	Tennessee Valley Authority/TVA N–520–1/N–520–2, N–702	ML092370060
13	J.A. Gresham	Westinghouse Electric Company/WECJAG N–655–1, N–757–1, N–759–2, N–782, N–759	ML092370665
14	Scott Chesworth	Structural Integrity Associates, Inc./SIASC N–716	ML092370061
15	Miroslav Trubelja	Structural Integrity Associates, Inc./SIAMT N–716	ML092370062
16	Sandra Sowah	Structural Integrity Associates, Inc./SIASS N–716	ML092370063
17	Daniel R. Cordes	ASME Section XI Subgroup Non Destructive Examination/DC N–583	ML092370064
18	Marcus N. Bressler	Private Citizen/MB N–71–18	ML092400356
19	T.S. Rausch	PPL Susquehanna, LLC/PPL N–416–4, N–504–4, N–638–4	ML092590124

Summary of Comments:

The proposed rule provided a 75-day comment period. A total of 19 comment letters were received from four private citizens, four utility organizations, seven industry groups that provide engineering and inspection services to the utilities, three associated with the ASME, and the Nuclear Energy Institute. Three general comments were received on the proposed rule regarding the need for editorial corrections (although two of the comments received from different commenters address the same subject). The majority of the comments received relate to Section XI Code Cases. Two comments were submitted requesting that the NRC include later versions of certain Code Cases in the final guide; 7 comments request that the NRC reconsider conditions on certain Code Cases; 1 comment requests clarification of a condition; and 3 comments provide additional technical information to justify moving certain Code Cases from RG 1.193 (Code Cases disapproved for use) to Regulatory Guide 1.147.

B. NRC Responses to Public Comments on Draft Regulatory Guide

Responses have been organized in two groups: Group I: Adopted Comments, that includes comments raising issues and concerns directly related to this rule, and have been adopted; and Group II: Comments not Adopted, that includes comments raising issues and concerns that are not directly connected to this particular rule, although they are generally relevant to this rule but have not been adopted.

Group I—Adopted Comments

General Comments: Edward Gerlach commented (comment EG1) that Table 2 in the proposed rulemaking listed accession numbers for Draft Regulatory Guides dated April 2009. The NRC's electronic reading room contains later versions of these Draft Guides dated June 2009.

Response: The accession numbers in Table 2 of the final rulemaking have been corrected to reflect the final versions of the regulatory guides. In addition, the accession numbers for all the documents have been verified.

Comment: Two commenters acknowledge that the titles of Code Cases N–712 and N–730 in Table 1 of the proposed rule had been inadvertently switched and should be corrected (comments EG2 and NEI3).

Response: The NRC agrees that there was an error in the rulemaking table. This table is not included in the final rulemaking, and no further NRC action is necessary.

RG 1.84

Code Case N–71–18

Comment: Two comments (ASME 1 and ASME 2) were received from the American Society of Mechanical Engineers on Code Case N–71–18, "Additional Materials for Subsection NF, Class 1, 2, 3, and MC Component Supports Fabricated by Welding, Section III, Division 1." The first comment (ASME1) was that the NRC proposed to impose the same conditions on Code Case N–71–18 as were imposed

on Code Case N–71–17, and some of the conditions are not appropriate to Revision 18 as certain references have changed (conditions (3) and (4)).

The second comment (ASME2) was that there appears to be confusion regarding whether or not the Code Case applies to component supports (condition 6). Marcus Bressler also commented on this Code Case (comment MB1) stating that conditions (1) and (2) aren't applicable to Revision 18 because the Code Case has no materials listed with a minimum tensile strength above 125 ksi.

Response: The NRC agrees with the ASME that the paragraphs referenced in conditions (3) and (4) should be modified. When Code Case N–71–17 was revised as Code Case N–71–18, certain references were rearranged. The editorial corrections have been made in the final guide so that the conditions are consistent with the references in the revised Code Case. The requirements for weld filler material hydrogen content were moved to paragraph 4.2 (previously in paragraph 5.3), and the requirements for postweld heat treatment were moved from paragraphs 16.2.1 and 16.2.2 to paragraphs 15.2.1 and 15.2.2 (paragraphs 16.2.1 and 16.2.2 no longer exist). As noted by the commenter, the conditions in Draft RG 1.84 should have been modified to be consistent. The conditions have been corrected in the final guide. With regard to the ASME's second comment (and similar comment from Marcus Bressler) on condition (6), the NRC's understanding of the intent of the provisions in the Code Case is not in agreement with the commenter's understanding, (*i.e.,* that the fracture toughness requirements as listed in this Code Case address Class 1, Class 2, and Class 3 component supports in addition to piping supports). The NRC believes that the fracture toughness requirements listed in Code Case N–71–18 apply only to piping supports. Implementation of this Code Case was approved by the NRC on this basis. Cognizant NRC staff will initiate discussions with the appropriate ASME committees.

The NRC agrees with Marcus Bressler that Code Case N–71–18 does not list materials with a minimum tensile strength exceeding the value of 125 kilograms per square inch. However, the NRC believes that conditions (1) and (2) are appropriate for this Code Case because they provide a cautionary note that high strength materials are susceptible to brittleness and stress corrosion cracking. As such, the NRC declines to adopt the comment related to conditions (1) and (2), and no change was made to the RG as the result of this comment.

RG 1.147

Code Case N–416–4

Comment: Three commenters (comments ASME3, EG3, and PPL1) requested that the NRC should not adopt the proposed condition requiring that when using Code Case N–416–4 "Alternative Pressure Test Requirement for Welded or Brazed Repairs, Fabrication Welds or Brazed Joints for Replacement Parts and Piping Subassemblies, or Installation of Replacement Items by Welding or Brazing, Classes 1, 2, and 3, Section XI, Division 1," that Nondestructive Examination (NDE) be performed for welded or brazed repairs and fabrication and installation joints as specified by the methods and acceptance criteria of the applicable subsection of the 1992 Edition of Section III. The commenters believe that the Section III NDE requirements are overly conservative relative to the NDE requirements of Section XI.

Response: The NRC disagrees that the condition is not needed. The NRC does not believe that an adequate argument was provided to justify deletion of the condition to require that NDE be performed for welded or brazed repairs and fabrication and installation joints in accordance with the methods and acceptance criteria of the applicable subsection of the 1992 Edition of Section III.

As discussed in the proposed rule for Draft Regulatory Guide DG–1192 for certain welding repairs or replacements, the previous version of this Code Case (Code Case N–416–3) permitted a system leakage test to be performed in lieu of performing a hydrostatic pressure test provided that certain requirements are met. A requirement was that NDE be performed on welded repairs, and that fabrication and installation of joints be as specified by the methods and acceptance criteria of the applicable subsection of the 1992 Edition of Section III. When Code Case N–416 was originally developed, the NRC agreed to the performance of system leakage testing in lieu of hydrostatic testing provided that NDE performed in conjunction with the repair met the requirements of the 1992 Edition of Section III. The requirement to perform NDE under Section III was removed when Code Case N–416–4 was issued.

The NRC believes that many analyses of the effectiveness and reliability of the later NDE requirements have demonstrated the inadequacies of earlier Code NDE requirements. Improvements in NDE have significantly increased the probability of detecting defects. With regard to leakage tests, the NRC staff's position was that even though the primary purpose of a leakage test is the leak-tightness of the primary pressure boundary, some additional assurance of primary boundary integrity was provided by the higher pressure hydrostatic test. Based on the industry conclusions that: the increased stress from a hydrostatic test is extremely unlikely to cause a subsurface defect to grow through-wall (and therefore, leak during a test) and the stresses involved in a hydrostatic test are similarly unlikely to cause leakage even with the presence of a through-wall flaw, the need for effective and reliable NDE is even greater.

Because the NRC has determined that pressure tests are not adequate for ensuring structural integrity (*i.e.,* adequate component repair and replacement), the NRC believes it to be paramount that high quality NDE be performed. Thus, the NRC rejects the argument that the lower quality NDE as conducted to earlier Codes is adequate. Accordingly, the NRC declines to adopt the comment, and no change was made to the RG as the result of this comment.

Code Case N–504–3, N–504–4

Comment: Four commenters (comments ASME4, EG4, NEI2, and PPL2) believe that all of the conditions the NRC proposed for Code Case N–504–4, "Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping, Section XI, Division 1," are unnecessary and should be removed in the final RG. One of the conditions requires that the provisions of Section XI, Nonmandatory Appendix Q, "Weld Overlay Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping Weldments," Section XI, must also be met in addition to the provisions of the Code Case was retained from RG 1.147, Revision 15, Code Case N–504–3. The commenters believe that changes to the Code Case and to Appendix Q address the NRC's concerns relative to Appendix Q and therefore this condition is no longer required. With regard to condition (a), the commenters believe that criteria in Code Case N–504–4 are more conservative than the proposed condition, and therefore condition (a) is not required. The commenters believe that conditions (b) and (c) regarding surface finish are redundant to criteria in Code Case N–504–4 and Supplement 11 of Appendix VIII. Finally, it was stated that there is no technical basis for restricting the use

of radiographic examination (condition (d)).

Response: The NRC disagrees that the conditions should be removed. It is true that a number of changes were made to the criteria of the Code Case and to Appendix Q as a result of concerns raised by the NRC. However, differences remain between Appendix Q and Code Case N–504–4 that were not addressed in the public comments submitted. For example, Appendix Q has requirements pertaining, in part, to the inspection and design of a structural weld overlay whereas the Code Case does not. Until the differences between Appendix Q and N–504–4 are addressed, the condition to follow Appendix Q must be retained.

It is clear from the comments, however, that condition (a) should be revised to make the objective clearer. The commenters believe that the limitations in the Code Case on laminar flaw size are more conservative than the proposed NRC condition, which indicates that the intent of the condition was not apparent. It is agreed that Code Case N–504–4 addresses laminar flaws, but the NRC does not believe that the provision is stringent or clear.

Condition (a) in the regulatory guide is needed to limit the number of laminar flaws in the weld overlay. If a weld overlay contains too many laminar flaws, the flaws may affect the structural integrity of the weld overlay. Accordingly, condition (a) has been revised to read "the total laminar flaw area shall not exceed 10 percent of the weld surface area, and no linear dimension of the laminar flaw area shall exceed the greater of 3 inches or 10 percent of the pipe circumference."

The NRC does not agree with regard to the comment that Code Case N–504–4 and Supplement 11 to Appendix VIII already address improving the surface finish of piping welds and therefore conditions (b) and (c) are unnecessary. The provision in Code Case N–504–4 cited by the commenters, "Grinding and machining of the as-welded overlay surface may be used to improve the surface finish for such examinations" is not a requirement and does not specify any criterion that must be met. Supplement 11, 1.1(c) states, "The surface condition of at least two specimens shall approximate the roughest surface condition for which the examination procedure is applicable." Thus, there is no specific criterion that must be met.

The NRC does not agree regarding the request to delete condition (d) and the restriction against radiographic testing (RT). Studies have been conducted indicating that radiography has the potential for detecting planar flaws with high reliability only under favorable conditions. Code Case N–504–4 provides alternative provisions for repairing austenitic stainless steel piping. Thus, the NRC believes this is a valid concern that planar flaws, typical flaws found during inservice inspections as opposed to volumetric flaws that result from fabrication, may not be detected through RT. Especially considering that digital radiographic testing may be used and factors such as exposure, screens, magnification, and source-target-detector distances have yet to be clearly defined. Without supporting technical information to indicate the reliability of RT for the particular conditions of interest, the NRC concludes that this condition to Code Case N–504–4 is necessary.

Code Cases N–513–2, N–513–3

Three commenters (comments RW1, ASME7, and DRS1) requested that Code Case N–513–3 be approved in final RG 1.147. They assert that licensees that have updated their inservice inspection (ISI) plans to the 2004 Edition of Section XI can no longer use Code Case N–513–2 because of limits on its applicability. Code Case N–513–3, which was recently published by the ASME in Supplement 8 to the 2007 Edition, addresses the applicability issue.

Response: The NRC agrees with the comment with one condition. Code Case N–513–2 was unconditionally approved in Revision 15 of RG 1.147. The applicability of the Code Case was through the 2001 Edition with the 2003 Addenda. The applicability was purposefully not extended by the ASME beyond the 2003 Addenda by the ASME because a revision to the Code Case (N–513–3) had been developed for application to later edition and addenda. The purpose of the revision to the Code Case (N–513–3) was to provide additional guidance to evaluate through-wall, nonplanar flaws. Users of Code Case N–513–2 had found the acceptance criterion for the branch reinforcement evaluation approach to be ambiguous, and there was a lack of adequate guidance for dispositioning nonplanar flaw combinations.

The NRC has reviewed the additional guidance resulting in Code Case N–513–3 and has determined that the additions are indeed clarifications and not technical changes. However, the NRC does not agree with one change regarding the time frame for repairs. Accordingly, Code Case N–513–3 has been conditionally approved in the final RG. Code Case N–513 was developed to reduce the number of plant shutdowns required to immediately correct insignificant degradation in Class 2 or 3 lower energy piping (maximum operating temperature of 200 °F and maximum operating pressure of 275 psig). Revisions 0 through 2 of the Code Case stated that certain flaws may be acceptable without performing a repair or replacement activity for a limited period, not exceeding the time to the next scheduled outage. The time frame for temporary acceptance of the degradation was modified in Code Case N–513–3 from "next scheduled outage" to "not to exceed 26 months from the initial discovery of the condition." The basis for NRC approval of the original time frame was that the degraded condition would be monitored and evaluated during continued operation, and operation was only approved until plant shutdown. Once the plant was shut down, it was expected that the degraded piping would be repaired. The extension of the time frame to 26 months from the discovery of the condition could permit operation through several outages. The NRC believes that the original time frame is prudent. The Class 2 and 3 systems addressed by the Code Case contain safety-significant components, and repairs should be performed at the first opportunity. Accordingly, Revision 3 of the Code Case has been included in the final guide with the condition that the repair or replacement activity must be completed during the next scheduled outage.

Code Case N–583

Comment: A commenter (comment DC1) requests that the NRC consider the removal of the conditions on the use Code Case N–583, "Annual Training Alternative, Section XI, Division 1," requiring practice "6 months prior" to performing exams, and leave "as-is" in the case to "annually." The commenter further suggests that if this is not acceptable, then a 6-month "proficiency" similar to the "annual proficiency" specified and implemented by ASNT CP–189 should be adopted. The commenter states that performing the practice on specimens with actual cracks is definitely beneficial, and that the ASME should adopt this position. However, after 10 years of implementation, the twice yearly requirement of the "hands on" practice has become significantly burdensome, specifically with logistics and cost of implementation, particularly for owners and vendors who generally employ the PDI qualified individuals.

Response: The NRC disagrees with the comment that the condition requiring practice six months prior to performing examinations should be deleted.

With respect to the commenter's recommendation to adopt a 6-month proficiency examination, the NRC believes this may be a viable option, but it would be more appropriate if the initiative and the technical basis for such an approach were developed by the industry. The NRC believes that the current requirement is justified. EPRI has conducted several studies on the relationship of education, training, and experience. The correlation was at best low and in some instances (such as experience versus ability to detect intergranular stress corrosion cracking (IGSCC)), the data showed a negative correlation. For example, a group of twelve ultrasonic examiners with approximately one-year of ultrasonic examination experience but with three weeks of quality training had a pass rate of 92.7 percent on the IGSCC detection practical examination. However, the success rate of individuals with experience averaging in excess of 7.7 years was only 37.6 percent.

One of the major keys to effective training is to perform a detailed task and skills analysis to determine the NDE parameters that impact detection performance. A number of these parameters such as illumination levels and calibration procedures are addressed in the conventional training course outlines. However, most outlines do not address the more subtle parameters such as visual search procedures and ultrasonic manual scanning techniques to assure coverage and effective beam orientation, nor do the outlines address the evaluation of subtle ultrasonic signal characteristics such as signal rise, decay time, and pulse duration. As appropriate, these issues must be identified and included in the training provided to examiners. Computer-based training, through the use of animations, simulation, and actual data, is evolving as an effective way to transfer this information.

In addition, many individuals do not routinely perform examinations, or they may not have recently had to interpret signals from cracks. Signals can be difficult to interpret. Although programs employ "qualified" personnel using qualified" procedures, operating experience, round robin trials, and research results have shown that skills will diminish without frequent training. Personnel and procedures must not only be qualified, but must also be effective. Experience and studies indicate that the examiner must practice on a frequent basis to maintain the capability for proper interpretation. In addition, these studies have shown that this capability begins to diminish within approximately 6 months if skills are not maintained. Class room instruction is not sufficient to maintain an examiner's skills in this highly specialized skill area. Examiner training needs to focus on hands-on training with flawed specimens.

With respect to the commenter's other recommendation to adopt a 6-month proficiency examination, the NRC believes this may be a viable option, but it would be more appropriate if the initiative and the needed technical basis for such an approach were developed by the industry. Accordingly, no changes are being made to the conditions at this time.

Code Case N–638–4

Comments: Two commenters (comments EG5 and PPL3) believe that Code Case N–638–4, "Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique, Section Xl, Division 1," addresses the NRC's concern that the Section XI examination volume and acceptance criteria were not appropriate for the subject weld repair. Paragraph 4(a) of the Code Case requires that the examination of the repair be performed as specified by and meet the acceptance criteria of the Construction Code or Section III. Therefore, the condition is no longer necessary.

Response: The NRC disagrees that Code Case N–638–4 addresses the issue. The commenter is correct that paragraph 4(a)(4) of Code Case N–638–4 specifies the acceptance criteria for the surface and volumetric examination as the Construction Code or Section III; however, Code Case N–638–4 still does not specify that a demonstration must be performed with representative samples that shows the ultrasonic examination technique is capable of detecting construction type flaws in the repaired volume. Thus, a condition is required to address this issue. Based on the public comments received, the NRC believes that condition (1) on Code Case 638–4 should be revised to be clearer. Accordingly, the condition has been reworded to explicitly require demonstration with construction type flaws. Further, as a result of the review of the public comments, the NRC realizes that an additional issue must be addressed. Paragraph 3(d) of the Code Case establishes a maximum weld interpass temperature, and paragraph 3(e) requires that the weld interpass temperature be determined through one of the methods listed in subparagraphs (e)(1), (e)(2), and (e)(3). Subparagraph (e)(1) lists methods by which the temperature may directly be determined, subparagraph (e)(2) provides a method to calculate the weld interpass temperature, and subparagraph (e)(3) allows the use of a test coupon to determine the maximum weld interpass temperature. Code Case N–638–4 does not restrict or choose one method over another. Ensuring that the weld interpass temperature is not exceeded is important in obtaining a quality weld (*e.g.,* in terms of corrosion resistance, notch toughness). Direct measurement is the most reliable method for ensuring that the maximum temperature is not exceeded. The NRC recognizes that direct measurement is not always feasible, but direct measurements should be used whenever possible before alternatives such as those described in paragraphs 3(e)(2) and 3(e)(3) are used. This position is consistent with past precedent on this issue. Thus, a second condition has been added in the final guide stating that "The provisions of paragraphs 3(e)(2) or 3(e)(3) may only be used when it is impractical to use the interpass temperature measurement methods described in 3(e)(1), such as in situations where the weldment area is inaccessible (*e.g.,* internal bore welding) or when there are extenuating radiological conditions."

Accordingly, the condition (1) of the Code Case 638–4 in final Revision 16 to RG 1.147 has been revised to read as follows: "Demonstration of ultrasonic examination of the repaired volume is required using representative samples which contain construction type flaws."

Code Case N–661–1

Comments: Two commenters (comments ASME5 and EG6) stated that Code Case N–661–1, "Alternative Requirements for Wall Thickness Restoration of Class 2 and 3 Carbon Steel Piping for Raw Water Service, Section XI, Division 1," addresses the NRC's concerns discussed in the proposed rule.

Therefore, the conditions that address root cause and weld overlays can be deleted. The commenters stated that the only issue that may need clarification is the definition of "cycle or refueling outage."

Response: The NRC agrees that condition (b) on the Code Case can be deleted. The NRC staff has reassessed paragraph 1(d) of the Code Case and agrees that it addresses the issue of multiple repairs to the same location through weld overlay. The NRC disagrees however, that condition (a), "if the root cause of the degradation has not been determined, the repair is only acceptable for one cycle," can be deleted. The NRC believes that the condition is still required to provide the needed clarity on two issues. First, the

second sentence of paragraph 7(b) of the Code Case uses the term "cause" rather than "root cause." These terms have specific meaning to licensees. The NRC has determined that for the purpose of maintaining safety, it is appropriate to require a root cause analysis which is more rigorous than merely inferring the "cause" of the degradation. The second issue relative to clarity is the use of the term "one fuel cycle." As discussed in the proposed rule, it is unclear what one fuel cycle actually infers if a repair is performed in mid-cycle. It may be interpreted that the repair is acceptable for the remainder of the current fuel cycle plus the subsequent fuel cycle. In addition, other terms are used in the Code Case such as "one cycle." Although the Code Case provision and regulatory guide condition (a) are otherwise nearly identical, the NRC believes that for the sake of clarity and to ensure that a suitable re-inspection frequency has been established when the cause of the degradation is unknown or when the potential for hydrogen cracking exists due to the welding conditions, the condition is needed so that users are clear that what is meant is by "next refueling outage."

With regard to condition (c) which states "When through-wall repairs are made by welding on surfaces that are wet or exposed to water, the weld overlay repair is only acceptable until the next refueling outage," the NRC has the same concern regarding "next refueling outage."

While it is agreed that paragraphs 4(c) and 5(b) of the Code Case deal with the technical issues, the term one cycle is used. Accordingly, the NRC is retaining this condition in the final RG to ensure that it is clear that the requirement applies at the next refueling outage.

Code Case N–716

Comment: Five commenters (comments EPRI1, KH1, SIASC1, SIAMT1, and SIASS1) suggested that the NRC conditionally approve Code Case N–716, "Alternative Piping Classification and Examination Requirements, Section XI, Division 1," in the final Revision 16 of RG 1.147. The NRC has conditionally approved requests from four plants to use provisions similar to those in the Code Case. Based on the approvals, lessons learned from the pilot plant applications, as well as a number of follow-on applications, the lessons learned could be incorporated into the final Revision 16 of RG 1.147 to allow plants to use this Code Case in the short term. Approval of the Code Case for generic use will not only result in a substantial reduction in worker exposure and radwaste, but will also reduce unnecessary NRC staff burden, as compared to waiting until the Code Case is revised by ASME and subjected to further NRC review.

Response: The Code Case has not been included in final Revision 16 to RG 1.147. The NRC is continuing to gain experience with the review of risk-informed inservice inspection (RI–ISI) programs based, in part, on Code Case N–716. The NRC staff has not yet systematically identified all differences between the method described in the Code Case and those approved at individual licensees, nor has the staff received any such description by industry.

One issue not yet explored in the plant specific submittals is the application of Revision 2 of RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," which expands the scope of initiating events whose evaluation is required to be consistent with the ASME/ANS RA–Sa–2009 PRA Standard.

The review of EPRI Topical Report 1018427, "Nondestructive Evaluation: PRA Technical Adequacy Guidance for RI–ISI Programs" is proceeding according to schedule. A request for additional information (RAI) was transmitted to EPRI on September 15, 2009. An NRC staff endorsed document describing acceptable PRA quality requirements for RI–ISI will be necessary for the NRC to endorse some version of Code Case N–716 in RG 1.147. Accordingly, Code case N–716 has not been included in the final revision 16 of RG 1.147.

Code Case N–751

The American Society of Mechanical Engineers (comment ASME6) does not believe that Code Case N–751, "Pressure Testing of Containment Penetration Piping, Section XI, Division 1," should be conditioned because the Construction Code, which may or may not have included provisions for NDE of piping welds in penetrations, continues to apply. Therefore, the presence or absence of specific NDE provisions in the Construction Code should not be a reason to condition the use of the Code Case.

Response: The NRC disagrees that specific nondestructive examination (NDE) requirements are not needed. As discussed in the proposed rule, the Code Case would allow an Appendix J Type C test to be performed as an alternative to the ASME Code requirement to pressure test piping that penetrates a containment vessel, if the piping and isolation valves that are part of the containment system are Class 2 and the balance of the piping system is outside the scope of Section XI. The NDE requirement associated with the system leakage test was removed from Section XI paragraph IWA–4540 of the 2003 Addenda (and later edition and addenda of the ASME Code). In addition, for plants that used the ASME B31.1 Code for construction, there was no requirement to volumetrically examine certain piping components during fabrication.

Section XI requires NDE per the construction code as part of repair and replacement activities. Thus, if a B31.1 plant or a licensee using the 2003 Addenda or later performs a repair to certain Class 2 or Class 3 piping, there is no requirement to perform NDE. Volumetric examination after repair or replacement is required to ensure high quality welds. It was stated in the public comments that the industry has concluded that pressure tests are not adequate for ensuring structural integrity (*i.e.,* adequate component repair and replacement). Therefore, it is paramount that high quality NDE be performed. Volumetric examination ensures high quality welds capable of performing their design function for the life of the component. Therefore, the condition on the use of Code Case N–751 that when a 10 CFR part 50, Appendix J, Type C test is performed as an alternative to the requirements of IWA–4540 (IWA–4700 in the 1989 edition through the 1995 edition) during repair and replacement activities, nondestructive examination must be performed as specified by IWA–4540(a)(2) of the 2002 Addenda of Section XI has been retained in the final RG.

Group II—Comments not Adopted

Code Case N–508–4

Comment: Two commenters (comments Xcel1 and NEI4) requested that Code Case N–508–4 be listed in the final RG because the Code Case would be beneficial to the industry.

Response: The NRC declines the suggestion to adopt Code Case 508–4 in the final guide. It would not be appropriate to include Revision 4 to the Code Case in the final guide without first having sought public comment on such a significant expansion of the scope of the Code Case. Code Case N–508–3, which was unconditionally approved in Revision 15 of RG 1.147, allowed snubbers and relief valves to be rotated from stock and installed on components for the purpose of testing or preventive maintenance. Code Case N–

508–4 was published by the ASME in Supplement 8 to the 2007 Edition, and it significantly expands the list of components through the addition of pumps, control rod drive mechanisms, and pump seal packages. The Code Cases listed in this supplement will be considered in the next draft of RG 1.47 giving the public an opportunity to comment on the appropriateness of the scope change of the Code Case.

With regard to including Code Case N–508–4 in the next draft guide, NRC staff have reviewed Code Case N–508–4 and identified an issue. It was realized that when Section XI is used to govern snubber examination and testing, Footnote 1, which was later added to the Code Case, conflicts with Subsection IWF, Section XI, up to and including the 2004 Edition through 2005 Addenda. Footnote 1 directs the user to implement the ASME and OM Code for snubber examination and testing.

The OM Code was developed in order to have a separate Code for the development and maintenance of provisions for the IST of pumps and valves. In 1990, the ASME published the initial edition of the OM Code, thereby transferring responsibility for these provisions from Section XI to the OM Committee. While the use of the OM Code is an option under 10 CFR 50.55a(b)(3)(v), the examination and testing requirements for snubbers are also provided in the 2005 Addenda and earlier editions and addenda of Section XI. There is no conflict for licensees who have adopted the 2006 Addenda or later editions and addenda of Section XI. Other than expansion of the list of components that may be rotated from stock and installed on components for the purpose of testing or preventive maintenance, Revisions 3 and 4 of the Code Case are identical. Thus, Code Case N–508–4 as presently constructed would have to be conditioned that Footnote 1 would not apply when the ISI Code of record is earlier than Section XI, 2006 Addenda, and Section XI requirements are used to govern the examination and testing of snubbers.

Code case N–520–2

Comment: Tennessee Valley Authority suggested that Code Case N–520–2, "Alternative Rules for Renewal of Active or Expired N-type Certificates for Plants Not in Active Construction," be included in the final RG rather than the Code Case N–520–1 which was listed in the draft regulatory guide. Case N–520–2 is representative of the current nuclear plants for which construction is likely to be renewed.

NRC Response: The NRC declines at this time to adopt the changes in the final guide as suggested by the commenter. The objective of Code Case N–520–1 was to address situations where construction on a nuclear power plant was halted and thus interrupted ASME Code activities but the Certificate Holder maintained their certificate. Code Case N–520–1 provides guidance on what a Certificate Holder has to do to document and stamp the completed construction work that was performed. Code Case N–520–2 is different however, in that it addresses the situation where the Certificate Holder let its N-type certificates expire.

The revised Code Case would allow an organization with an expired Certificate to secure an ASME Temporary Certificate of Authorization. While the NRC recognizes that the temporary certificate would only apply in situations where the plant was kept in an appropriate state where completion could be restarted at a later date and that the temporary certificate would be issued solely for the purpose of finishing the documentation and stamping required for the construction completed prior to work being stopped, the NRC has determined that the public should have an opportunity to comment on this change before a final decision is made. Accordingly, Code Case N–520–2 and the suggestion provided by the commenter will be discussed in the next proposed rule.

The NRC notes that the wording of Code Case N–520–2 may create confusion regarding the relationship between the Authorized Nuclear Inspection Agency (ANIA) and the Authorized Nuclear Inspector (ANI). Accordingly, it is suggested that the wording of the Code Case be modified to clearly indicate that the "ANIA" is an Authorized Nuclear Inspection Agency and the ANIA employs the ANI.

Code Case N–597–2

Comment: Two commenters (comments PGE1 and NEI1) suggest that the method used to evaluate local degradation for Code Case, N–597–2, "Requirements for Analytical Evaluation of Pipe Wall Thinning, Section XI, Division 1," should be the same as that used in Code Case N–513–2, "Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping, Section XI, Division 1." The commenters argue that the NRC has conditionally approved Code Case N–513–2 with an evaluation methodology to allow licensees to temporarily accept flaws in moderate energy Class 2 or 3 piping whereas condition (2) on Code Case N–597–2 would require NRC approval for any amount of local degradation beyond that calculated by the hoop stress equation.

The commenters believe that the N–513–2 methodology could be used for N–597–2 to eliminate the need for NRC approval in certain situations.

Response: The NRC declines the suggestion to adopt the Code Case N–513–2 methodology in Code Case N–597–2 in the final guide. It would not be appropriate to include such a significant expansion of the scope of the Code Case in the final guide without first having sought public comment. While the NRC agrees that the flaw evaluation methodology for analyzing piping degradation contained in Code Case N–513–2 could under certain circumstances be applied for a Code Case N–597–2 evaluation (*i.e.,* both Code Cases address the analytical evaluation of pipe wall thinning), the NRC disagrees with the commenters that through-wall leakage should be included in the scope of such an evaluation.

Code Case N–597 was not developed to address leakage, (*i.e.,* it is focused only on analytical evaluation of wall thinning). The temporary acceptance of through-wall leakage is governed by other Code Cases such as N–513–2. The addition of leakage as a condition to Code Case N–597 as suggested would imply that leakage could be justified on a permanent basis. In addition, Code Case N–597–2 is applicable to all ASME Code Class piping, which would include high energy piping. Code Case N–513–2 is limited to Class 2 and 3 moderate energy piping. The NRC has only approved temporary acceptance of flaws for moderate energy Class 2 or 3 piping (maximum operating temperature does not exceed 200°F (93°C) and maximum operating pressure does not exceed 275 psig (1.9 MPa). Finally, such a change would redefine the defense-in-depth concept.

Rather than performing inspections to detect flaws before structural integrity is compromised, degradation would in effect be managed after leakage is discovered. Thus, no changes have been made in the final guide as a result of the comments.

Code Case N–619, Code Case N–648–1

Comment: One commenter (number 7) requests that the NRC reconsider the conditions placed on Code Case N–619, "Alternative Requirements for Nozzle Inner Radius Inspections for Class 1 Pressurizer and Steam Generator Nozzles, Section XI, Division 1," and Code Case N–648–1, "Alternative Requirements for Inner Radius Examination of Class 1 Reactor Pressure Vessel Nozzles, Section XI, Division 1."

The commenter believes that the conditions on the two Code Cases requiring a wire standard to demonstrate the resolution capability of remote visual examination systems should be changed to the ASME 0.044 inch characters because characters have been recognized to be a better resolution standard (comment CW1). The commenter also raised a question regarding the use of Section XI Table IWB–3512–1 (comment CW2). The condition on Code Case N–619 state that licensees may perform a visual examination utilizing the allowable flaw length criteria of Table IWB–3512–1. The commenter believes it is unclear how allowable flaw lengths can be determined from Table IWB–3512–1. The commenter suggested that the same acceptance criteria approved by the NRC for Code Case N–648–1 be applied to Code Case N–619 since both Code Cases address the examination of the inner nozzle radius. Finally, the commenter believes that the condition on Code Case N–648–1 addressing the examination volume can be deleted as it describes the same volume required to be examined by the Code Case (comment CW3).

Response: The NRC declines at this time to adopt the changes in the final guide as suggested by the commenter. It would not be appropriate to adopt significant changes to visual testing resolutions standards in the final guide without first having sought public comment.

The NRC agrees that characters have been demonstrated to be a better resolution standard than the 1-mil wire standard. However, the NRC cannot at this time support modifying the criteria in the RG on these Code Cases to change to the ASME 0.044 inch characters as suggested. While the NRC staff ultimately supports the replacement of the wire resolution standard, the staff believes that the shift to characters should be part of broader changes to the visual testing provisions as related to Code Cases N–619 and N–648–1.

Visual examinations are used in certain situations as alternatives to volumetric and/or surface examination tests where it is not possible to conduct volumetric examination (*e.g.,* where there are limitations due to access or geometry) or to reduce occupational exposure in high radiation fields. Visual testing experts believe that if the camera and lighting were sufficient to resolve a 12 μm (0.0005 in.) diameter wire, then the camera system had a resolution sufficiently high for the inspection. Subsequent investigation of the effectiveness and reliability of visual examinations has shown that the wire resolution standard is not sufficient to determine the visual acuity of a remote system, (*i.e.,* there are important differences between visually detecting a wire and a crack). Research conducted at the Pacific Northwest National Laboratory (PNNL) showed that other calibration standards be adapted for visual testing such as reading charts and resolution targets. Results supporting this recommendation were published in NUREG/CR–6943, "A Study of Remote Visual Methods to Detect Cracking in Reactor Components."

However, as also discussed in the reports, other parameters such as crack size, lighting conditions, camera resolution, and surface conditions were assessed. The NRC concluded from the investigation that a significant fraction of the cracks that have been reported in nuclear power plant components are at the lower end of the capabilities of the visual testing equipment currently being used. Code Case N–619 addresses the examination of the nozzle inner radius of Class 1 pressurizers and steam generators.

Code Case N–648–1 provides an alternative for examining the inner radius of Class 1 reactor vessel nozzles. The NRC investigation of crack opening dimensions of service-induced cracks in nuclear components included thermal fatigue, mechanical fatigue, and stress corrosion cracks. The NRC concluded that current visual testing systems may not reliably detect a significant number of these cracks (approaching 50% under certain conditions). Research at PNNL showed that detection of these cracks under field conditions is strongly dependent on camera magnification, lighting, inspector training, and inspector vigilance.

While this research supports the use of characters in lieu of a wire standard, the research also shows that other changes are warranted to visual testing as related to these two Code Cases. The NRC believes that such significant changes to visual testing criteria should be undertaken by the ASME and industry in a coordinated manner.

With regard to comment CW2 that it is unclear how allowable flaw lengths can be determined from Table IWB–3512–1, the NRC agrees that the condition to determine allowable flaw length criteria could be improved, and public comments will be specifically sought on Code Case N–619 in the next proposed rule on this issue.

Finally, it is agreed that the condition requiring the examination of the surface between points M and N is unnecessary because Code Case N–648–1 already requires this examination. However, the NRC will have to request public comment on Code Case N–648–1 regarding this issue in the next proposed rule.

Code Cases N–655–1, N–757–1, N–759–1, N–782

Comment: Westinghouse Electric Company (comments WECRS1 and WECJAG1) identified four Code Cases used in the AP1000 design that were not included in the draft of RG 1.84. The commenter suggested that the Code Cases be included in the next revision of RG1.84, (*i.e.,* Code Case N–655–1, "Use of SA–738, Grade B, for Metal Containment Vessels, Class MC, Section III, Division 1)," Code Case N–757–1, "Alternative Rules for Acceptability for Class 2 and 3 Valves, NPS 1 (DN25) and Smaller with Welded and Nonwelded End Connections other than Flanges, Section III, Division 1," Code Case N–759–2, "Alternative Rules for Determining Allowable External Pressure and Compressive Stresses for Cylinders, Cones, Spheres, and Formed Heads, Section III, Division 1," and Code Case N–782, "Use of Code Editions, Addenda, and Cases Section III, Division 1."

Response: The NRC does not agree that these Code Cases should be included in the final RG. The Code Cases referenced in the comment are not currently listed in the latest AP1000 Design Control Document (DCD). In addition, public comment has not yet been sought on these Code Cases. Accordingly, the NRC will consider including Code Cases N–655–1, N–757–1, N–759–2, and N–782 in the next draft RG (DG–1230; proposed Revision 36 to RG 1.84), which is currently under development. If Westinghouse includes the above ASME Code Cases in its next revision to the AP1000 DCD, then the NRC staff will provide an evaluation of the acceptability of using these four ASME Code Cases in a supplement to its Final Safety Evaluation Report for the AP1000 design certification amendment as alternatives to the regulations under § 50.55a(a)(3).

For the reasons set forth above, the NRC declines to adopt the comment and no change was made to the RG as the result of this comment.

Code Case N–702

Comment: Two commenters (comments ASME8 and TVA2) request that Code Case N–702, "Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds, Section XI, Division 1," be conditionally accepted in the final RG. The NRC approved use of the Code Case with certain criteria in a Safety Evaluation of BWRVIP–108: BWR

Vessel and Internals Project, Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii," EPRI Technical Report 1003557, October 2002 (ADAMS Accession No. ML023330203). The commenters believe that these criteria provide a basis for the NRC to conditionally approve the Code Case in RG 1.147.

Response: The NRC declines at this time to adopt the changes in the final guide as suggested by the commenter. It would not be appropriate to generically adopt the alternative nozzle examination requirements without first having sought public comment on this Code Case. The NRC agrees, however, that the NRC staff's Safety Evaluation (dated December 18, 2007, ADAMS Accession No. ML073600374) provides a basis for approving Code Case N–702 in RG 1.47. Code Case N–702 will be addressed the next draft guide.

Code Case N–747

Comment: The American Society of Mechanical Engineers (comment ASME9) believes that the basis for listing Code Case N–747, "Reactor Vessel Head-to Flange Weld Examinations, Section XI, Division 1," in DG–1193 (Code Cases not approved for use) was flawed, and the Code Case should be unconditionally accepted in final Revision 16 of RG 1.147.

Response: The NRC declines at this time to adopt the changes in the final guide as suggested by the commenter. It would not be appropriate to adopt the Code Case in the final guide without first having sought public comment. Nonetheless, the NRC staff has reviewed the additional information provided by the ASME regarding the expected fluence levels of reactor vessel head-to-flange welds and believes that an adequate technical basis has been provided to support a conclusion that the fracture toughness will remain high. Code Case N–747 will be addressed in the next draft guide.

Code Case With Proposed Conditions—No Public Comments

In the proposed rule, the NRC proposed to condition Code Case N–570–1. No public comments were received on the proposed conditions to the Code Case. Thus, no changes have been made to the proposed adoption of Code Case N–570–1.

Section III

Code Case N–570–1, Alternative Rules for Linear Piping and Linear Standard Supports for Classes 1, 2, 3, and [Metal Cladding (MC)], Section III, Division 1. Code Case N–570–1 references American National Standards Institute (ANSI)/American Institute of Steel Construction (AISC) N690–1994 s1, "Supplement No. 1 to the Specification for the Design, Fabrication, and Erection of Steel Safety-Related Structures for Nuclear Facilities." However, the AISC issued Supplement 2 on October 6, 2004. Supplement 2 supersedes Supplement 1. The updated supplement (Supplement 2) is consistent with NRC positions and requirements for new reactor support design. Thus, the NRC is conditioning Code Case N–570–1 to require that ANSI/AISC N690–1994 s2, "Supplement No. 2 to the Specification for the Design, Fabrication, and Erection of Steel Safety-Related Structures for Nuclear Facilities," be used when this code case is implemented.

III. NRC Approval of New and Amended ASME Code Cases

This final rule incorporates by reference the latest revisions of the NRC RGs that list acceptable and conditionally acceptable ASME BPV Code Cases. RG 1.84, Revision 35 would supersede Revision 34 (October 2007); and RG 1.147, Revision 16 would supersede Revision 15 (October 2007). RG 1.192 (June 2003) would not be revised because there have been no new OM Code Cases published by the ASME since the last NRC review.

The ASME Code Cases which are the subject of this rulemaking are the new revised Section III and Section XI Code Cases listed in Supplements 2 through 11 to the 2004 BPV Code, and Supplement 0 published with the 2007 Edition of the BPV Code (Supplement 0 also serves as Supplement 12 to the 2004 Edition) of the code. The NRC followed a three-step process to determine acceptability of new and revised ASME Code Cases and the need for conditions on the uses of these Code Cases. This process was employed in the review of the ASME Code Cases which are the subject of this final rule. First, NRC staff actively participated with other ASME committee members with full involvement in discussions and technical debates in the development of new and revised Code Cases. This included a technical justification in support of each new or revised Code Case. Second, the NRC committee representatives distributed the Code Case and technical justification to other cognizant NRC staff to ensure an adequate technical review.

Finally, the proposed NRC position on each Code Case is reviewed and approved by NRC management as part of the rulemaking amending 10 CFR 50.55a to incorporate by reference new revisions of the RGs listing the relevant ASME Code Cases and conditions on their use. This regulatory process, when considered together with the ASME's own process for development and approval of ASME Code Cases, provides reasonable assurances that the NRC approves for use only those new and revised ASME Code Cases (with conditions as necessary) which provide reasonable assurance of adequate protection to public health and safety and which do not have significant adverse impacts on the environment.

Code Cases Approved Unconditionally for Use

The NRC concludes, in accordance with the process for review of ASME Code Cases, that each of the ASME Code Cases listed in Table 1 is technically adequate and consistent with current NRC regulations.

TABLE 1—UNCONDITIONALLY APPROVED CODE CASES

Code Case No.	Code supplement	Code case title
ASME B&PV Code, Section III		
N–4–12	4	Special Type 403 Modified Forgings or Bars, Class and CS, Section III, Division 1.
N–284–2	12	Metal Containment Shell Buckling Design Methods, Class MC, Section III, Division 1.
N–373–3	3	Alternative postweld heat treatment (PWHT) Time at Temperature for P–No. 5A or P–No. 5B Group 1 Material, Classes 1, 2, and 3 Section III, Division 1.
N–621–1	3	Ni-Cr-Mo Alloy Unified Numbering System (UNS) N06022) Weld Construction to 800°F, Section III, Division 1.

TABLE 1—UNCONDITIONALLY APPROVED CODE CASES—Continued

Code Case No.	Code supplement	Code case title
N–699	8	Use of Titanium Grade 2 (UNS R50400) Tube and Bar, and Grade 1 (UNS R50250) Plate and Sheet for Class 1 Construction, Section III, Division 1.
N–725	4	Design Stress Values for UNS N06690 With Minimum Specified Yield Strength of 35 Ksi (240 Mpa), Classes 2 and 3 Components, Section III, Division 1.
N–727	9	Dissimilar Welding Using Continuous Drive Friction Welding for Reactor Vessel Control Rod Drive Mechanism (CRDM)/Control Element Drive Mechanism (CEDM)Nozzle to Flange/Adapter Welds, Class 1, Section III, Division 1.
N–732	5	Magnetic Particle Examination of Forgings for Construction, Section III, Division 1.
N–736	8	Use UNS S32050 Welded and Seamless Pipe and Tubing, Forgings, and Plates Conforming to SA–249/SA–249M, SA–479/SA–479M, and SA–240/SA–240M, and Grade CK35MN Castings Conforming to ASTM A 743–03 for Construction of Class 1, 2, and 3 Components, Section III, Division 1.
N–738	6	NDE of Full Penetration Butt Welds in Class 2 Supports, Section III, Division 1.
N–741	7	Use of 22Cr-5Ni-3Mo-N (Alloy UNS S32205 Austenitic/Ferritic Duplex Stainless Steel) Forgings, Plate, Welded and Seamless Pipe Tubing, and Fittings to SA–182, SA–240, SA–789, A 790–04a, SA–815, Classes 2 and 3, Section III, Division 1.
N–744	11	Use of Metric Units Boiler and Pressure Vessel Code, Section III, Division 1.
N–746	8	Use of 46Fe-24Ni-21Cr-6Mo-Cu-N (UNS N08367) Bolting Materials for Class 2 and 3 Components, Section III, Division 1.
N–756	12	Alternative Rules for Acceptability for Class 1 Valves, NPS (DN 25) and Smaller with Nonwelded End Connections Other than Flanges, Section III, Division 1.
N–759	11	Alternative Rules for Determining Allowable External Pressure and Compressive Stresses for Cylinders, Cones, Spheres, and Formed Heads, Section III, Division 1.
ASME B&PV Code, Section XI		
N–494–4	7	Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Piping that Exceed the Acceptance Standards, Section XI, Division 1.
N–496–2	2	Helical-Coil Threaded Inserts, Section XI, Division 1.
N–666	9	Weld Overlay of Class 1, 2, and 3 Socket Welded Connections, Section XI, Division 1.
N–686–1	12	Alternative Requirements for Visual Examinations VT–1, VT–2, and VT–3, Section XI, Division 1.
N–705	11	Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks, Section XI, Division 1.
N–706–1	12	Alternative Examination Requirements of Table IWB–2500–1 and Table IWC–2500–1 for Pressurized Water Reactor (PWR) Stainless Steel Residual and Regenerative Heat Exchangers, Section XI, Division 1.
N–712	2	Class 1 Socket Weld Examinations, Section XI, Division 1.
N–730	11	Roll Expansion of Class 1 Control Rod Drive Bottom Head Penetrations in Boiling Water Reactors (BWR), Section XI, Division 1.
N–731	5	Alternative Class 1 System Leakage Test Pressure Requirements, Section XI, Division 1.
N–733	6	Mitigation of Flaws in NPS 2 (DN 50) and Smaller Nozzles and Nozzle Partial Penetration Welds in Vessels and Piping by Use of a Mechanical Connection Modification, Section XI, Division 1.
N–735	11	Successive Inspection of Class 1 and 2 Piping Welds, Section XI, Division 1.
N–739	11	Alternative Qualification Requirements for Personnel Performing Class CC Concrete and Post-tensioning System Visual Examinations, Section XI, Division 1.
N–753	10	Vision Tests, Section XI, Division 1.

Code Cases Approved for Use With Conditions

As a result of the NRC staff's review, the NRC concludes that certain Code Cases are technically inadequate or require supplemental guidance. Accordingly, the NRC is imposing conditions [2] upon the use of these Code Cases, and they are listed in Table 2.

[2] The NRC reviews every Code Case to ascertain if each of the Code Cases is technically adequate and consistent with current NRC regulations. As a result of such reviews, the NRC may conclude that certain Code Cases are technically adequate or require supplemental guidance. In such cases, the NRC imposes limitations, modifications, and provisions on those Code Cases but is now substituting the word "Conditions" throughout 10 CFR 50.55a.

TABLE 2—CONDITIONALLY APPROVED CODE CASES

Code Case No.	Code supplement	Code case title	Condition
ASME B&PV Code, Section III			
N–71–18	Revision 18 of the Code Case was not new to Draft Revision 35 of Regulatory Guide 1.84. The Code Case is listed in this table because a public comment was received suggesting editorial corrections.	*Additional Materials for Subsection NF, Class 1, 2, 3, and MC Component Supports Fabricated by Welding, Section III, Division 1.*	(1) The maximum measured ultimate tensile strength (UTS) of the component support material must not exceed 170 Ksi in view of the susceptibility of high-strength materials to brittleness and stress corrosion cracking. (2) Certain applications may exist where a UTS value of up to 190 Ksi could be considered acceptable for a material and, under this condition, the Design Specification must specify impact testing for the material. For these cases, it must be demonstrated by the applicant that: (a) The impact test results for the material meet Code requirements, (b) The material is not subject to stress corrosion cracking by virtue of the fact that: (i) A corrosive environment is not present, and (ii) The component that contains the material has essentially no residual stresses or assembly stresses, and (iii) It does not experience frequent sustained loads in service. (3) In the last sentence of paragraph 4.2, reference must be made to paragraph 4.5.2.2, "Alternative Atmosphere Exposure Time Periods Established by Test," of the AWS D1.1 Code for the evidence presented to and accepted by the Authorized Inspector concerning exposure of electrodes for longer periods of time. (4) Paragraph 15.2.2 is not acceptable as written and must be replaced with the following: "When not exempted by 15.2.1 above, the post-weld heat treatment must be performed in accordance with NF–4622 except that ASTM A–710 Grade A Material must be at least 1,000 °F (540 °C) and must not exceed 1,150 °F (620 °C) for Class 1 and Class 2 material and 1,175 °F (640 °C) for Class 3 material. (5) The new holding time at temperature for weld thickness (nominal) must be 30 minutes for ½ inch or less, 1 hour per inch for thickness over ½ inch to 5 inches, and for thicknesses over 5 inches, 5 hours plus 15 minutes for each additional inch over 5 inches. (6) The fracture toughness requirements as listed in this Code Case apply only to piping supports and not to Class 1, Class 2, and Class 3 component supports.
N–570–1	8	*Alternative Rules for Linear Piping and Linear Standard Supports for Classes 1, 2, 3, and MC, Section III, Division 1.*	The provisions of ANSI/AISC N690–1994 s2, "Supplement No. 2 to the Specification for the Design, Fabrication, and Erection of Steel of Safety-Related Structures for Nuclear Facilities," must be met.
ASME B&PV Code, Section XI			
N–416–4	4	*Alternative Pressure Test Requirement for Welded or Brazed Repairs, Fabrication Welds or Brazed Joints for Replacement Parts and Piping Subassemblies, or Installation of Replacement Items by Welding or Brazing, Classes 1, 2, and 3, Section XI, Division 1.*	Nondestructive examination shall be performed on welded or brazed repairs and fabrication and installation joints in accordance with the methods and acceptance criteria of the applicable subsection of the 1992 Edition of Section III.
N–504–4	10	*Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping, Section XI, Division 1.*	The provisions of Section XI, Nonmandatory Appendix Q, "Weld Overlay Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping Weldments," must also be met. In addition, the following conditions shall be met: (a) The total laminar flaw area shall not exceed 10 percent of the weld surface area, and no linear dimension of the laminar flaw area shall exceed the greater of 3 inches or 10 percent of the pipe circumference; and (b) radiography shall not be used to detect planar flaws under or masked by laminar flaws.

TABLE 2—CONDITIONALLY APPROVED CODE CASES—Continued

Code Case No.	Code supplement	Code case title	Condition
N–638–4	11	*Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique, Section XI, Division 1.*	Ultrasonic examination shall be demonstrated for the repaired volume using representative samples which contain construction type flaws.
N–661–1	7	*Alternative Requirements for Wall Thickness Restoration of Class 2 and 3 Carbon Steel Piping for Raw Water Service, Section XI, Division 1.*	(1) If the cause of the degradation has not been determined, the repair is only acceptable until the next refueling outage. (2) When through-wall repairs are made by welding on surfaces that are wet or exposed to water, the weld overlay repair is only acceptable until the next refueling outage.
N–751	11	*Pressure Testing of Containment Penetration Piping, Section XI, Division 1.*	When a 10 CFR Part 50, Appendix J, Type C test is performed as an alternative to the requirements of IWA–4540 (IWA–4700 in the 1989 edition through the 1995 edition) during repair and replacement activities, nondestructive examination must be performed in accordance with IWA–4540(a)(2) of the 2002 Addenda of Section XI.

ASME Code Cases Not Approved for Use

ASME Code Cases which are currently issued by the ASME but not approved for generic use by the NRC are listed in RG 1.193, *ASME Code Cases Not Approved for Use.* The Code Cases which are not approved for use include Code Cases on high-temperature gas cooled reactors; certain requirements in Section III, Division 2, that are not endorsed by the NRC; liquid metal; and submerged spent fuel waste casks. RG 1.193 is not incorporated by reference into § 50.55a. The RG is prepared by the NRC as a resource for stakeholders, allowing them to easily identify Code Cases which the NRC has not approved for use as a generic matter. Listing of a Code Case in RG 1.193 does not preclude an applicant or licensee from seeking individual, case-by-case NRC approval to use a listed Code Case.

IV. Paragraph-By Paragraph Discussion

Overall Considerations on the Use of ASME Code Cases

This final rule amends 10 CFR 50.55a to incorporate by reference RG 1.84, Revision 35, which supersedes Revision 34, and RG 1.147, Revision 16, which supersedes Revision 15. The following general guidance applies to the use of the ASME Code Cases approved in the latest versions of the regulatory guides which are incorporated by reference into 10 CFR 50.55a as part of this rulemaking.

The endorsement of a Code Case in NRC RGs constitutes acceptance of its technical position for applications which are not precluded by regulatory or other requirements or by the recommendations in these or other RGs. The applicant and licensee are responsible for ensuring that use of the Code Case does not conflict with regulatory requirements or licensee commitments. The Code Cases listed in the RGs are acceptable for use within the limits specified in the Code Case. If the RG states an NRC condition on the use of a Code Case, then the NRC condition supplements and does not supersede any condition(s) specified in the code case, unless otherwise stated in the NRC condition.

ASME Code Cases may be revised for many reasons, (*e.g.,* to incorporate operational examination and testing experience; and to update material requirements based on research results). On occasion, an inaccuracy in an equation is discovered or an examination, as practiced, is found not to be adequate to detect a newly discovered degradation mechanism. Hence, when an applicant or a licensee initially implements a Code Case, 10 CFR 50.55a requires that the applicant or the licensee implement the most recent version of that Code Case as listed in the RGs incorporated by reference. Code Cases superseded by revision are no longer acceptable for new application unless otherwise indicated.

Section III of the ASME BPV Code applies only to new designs and construction of new plants. The edition and addenda to be used in the design and/or construction of a plant are selected based on the date of the construction permit, combined license, design certification, or manufacturing license and are not changed thereafter, except voluntarily by the applicant or the licensee (unless prohibited by applicable NRC finality provisions in 10 CFR Part 52) or as otherwise permitted under 10 CFR Part 52). Hence, if a Section III Code Case is implemented by an applicant or a licensee and a later version of the Code Case is incorporated by reference into 10 CFR 50.55a and listed in the RGs, then the applicant or the licensee may use either version of the Code Case (subject, however, to whatever change requirements apply to its licensing basis, (*e.g.,* 10 CFR 50.59).

The ISI and OM IST programs for a 10 CFR Part 50 operating license or 10 CFR Part 52 combined license must be updated every 10 years to the latest edition and addenda of Section XI and the OM Code, respectively, that were incorporated by reference to 10 CFR 50.55a and in effect 12 months prior to the start of the next inspection and testing interval. Licensees who were using a Code Case prior to the effective date of its revision may continue to use the previous version for the remainder of the 120-month ISI or IST interval. This relieves licensees of the burden of having to update their ISI or IST program each time a Code Case is revised by the ASME and approved for use by the NRC. Because Code Cases apply to specific editions and addenda and because Code Cases may be revised because they are no longer accurate or adequate, licensees choosing to continue using a Code Case during the subsequent ISI interval must implement the latest version incorporated by reference into § 50.55a and listed in the RGs.

The ASME may annul Code Cases that are no longer required, are determined to be inaccurate or inadequate, or have been incorporated into the BPV or OM Codes. If an applicant or a licensee applied a Code Case before it was listed as annulled or expired, the applicant or the licensee may continue to use the Code Case until the applicant or the

licensee updates its construction Code of Record (in the case of an applicant, updates its application) or until the licensee's 120-month ISI/IST update interval expires, after which the continued use of the code case is prohibited unless NRC approval is granted under § 50.55a(a)(3). If a Code Case is incorporated by reference into § 50.55a and later annulled by the ASME because experience has shown that the design analysis, construction method, examination method, or testing method is inadequate; the NRC will amend § 50.55a and the relevant RG to remove the approval of the annulled Code Case. Applicants and licensees should not begin to implement such annulled Code Cases in advance of the effective date of the final rulemaking. Concurrent with this action, the NRC is publishing in the **Federal Register** Notices of availability of these RGs listing acceptable ASME BPV Code Cases.

Section 50.55a(b)

In paragraphs (b) and (b)(4) of § 50.55a, the reference to the revision number for RG 1.84 is changed from "Revision 34" to "Revision 35." In paragraph (b)(5) of § 50.55a, the reference to the revision number for RG 1.147 is changed from "Revision 15" to "Revision 16."

Sections 50.55a(f)(2), (f)(3)(iii)(A), (f)(3)(iv)(A), (f)(4)(ii), (g)(2), (g)(3)(i), (g)(3)(ii), (g)(4)(i), and (g)(4)(ii)

In paragraphs (f)(2), (f)(3)(iii)(A), (f)(3)(iv)(A), (f)(4)(ii), (g)(2), (g)(3)(i), (g)(3)(ii), (g)(4)(i), and (g)(4)(ii) of § 50.55a, the reference to the revision number for RG 1.147 is changed from "Revision 15" to "Revision 16."

V. Availability of Documents

The NRC is making the documents identified below available to interested persons through one or more of the following:

Public Document Room (PDR): The NRC PDR is located at 11555 Rockville Pike, Public File Area O–1F21, Rockville, Maryland 20852.

Federal Rulemaking Web Site: Public comments and supporting material related to this final rule can be found at *http://regulations.gov* by searching on the Docket ID NRC–2009–0014.

The NRC's Public Electronic Reading Room:

The NRC's public electronic reading room is located at *http://www.nrc.gov/reading-rm.html.*

TABLE 2

Document	PDR	Web	e-Reading Room
Final Rule Regulatory Analysis	X	X	ML100560131
RG 1.84, Revision 35	X	X	ML101800532
RG 1.147, Revision 16	X	X	ML101800536
RG 1.193, Revision 3	X	X	ML101800540
Public Comments	X	X	ML100670356
Safety Evaluation Report EPRI Report (BWRVIP–108) (December 18, 2007) BWR Nozzle-to-Vessel Welds and Nozzle Inner Radius.	X	X	ML073600374

VI. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Public Law (Pub. L.) 104–113, requires Federal agencies to use technical standards developed or adopted by voluntary consensus standards bodies unless the use of such standards is inconsistent with applicable law or is otherwise impractical. In this action, the NRC is amending its regulations to incorporate by reference RGs that list ASME BPV Code Cases approved by the NRC. ASME Code Cases, which are ASME-approved alternatives to the provisions of ASME Code editions and addenda, are developed by the ASME whose members (including the NRC and utilities) have broad and varied interests. Therefore, ASME Code Cases are national consensus standards as defined in Pub. L. 104–113 and OMB Circular A–119.

The NRC reviews each Section III and Section XI Code Case published by the ASME to ascertain whether it is consistent with the safe operation of nuclear power plants. Those code cases found to be acceptable are listed in the RGs that are incorporated by reference in § 50.55a(b). Those that are found to be unacceptable are listed in RG 1.193, but licensees may still seek NRC's approval to apply these Code Cases through the relief request process permitted in § 50.55a(a)(3). Other Code Cases, which the NRC finds to be conditionally acceptable, are also listed in the RGs that are incorporated by reference along with the conditions under which they may be applied. If the NRC did not conditionally accept ASME Code Cases, it would disapprove these Code Cases entirely. The effect would be that licensees would need to submit a larger number of relief requests, which would be an unnecessary additional burden for both the licensee and the NRC. For these reasons, the treatment of ASME BPV and OM Code Cases and any conditions placed on them in this final rule does not conflict with any policy on agency use of consensus standards specified in OMB Circular A–119.

The NRC is aware of other voluntary consensus standards that exist in other countries that generally address the subjects covered by the ASME Codes and Code Cases. However, the ASME Code is itself recognized internationally. The adoption of those other voluntary consensus standards would not materially advance the underlying objectives of the NTTAA. Accordingly, the NRC is incorporating by reference and approving the use the ASME Code Cases, instead of incorporating by reference and approving the use of other countries voluntary consensus standards that address nuclear power plant piping design, construction, maintenance and in-service inspection.

VII. Finding of No Significant Environmental Impact: Environmental Assessment

This final rule action stems from the Commission's practice of incorporating by reference the RGs listing the most recent set of NRC-approved ASME Code Cases. The purpose of this action is to allow licensees to use the Code Cases listed in the RGs as alternatives to requirements in the ASME BPV Code for the construction and ISI of nuclear power plant components. This action is intended to advance the NRC's strategic goal of ensuring adequate protection of public health and safety and the environment. It also demonstrates the agency's commitment to participate in the national consensus standards process under the National Technology Transfer and Advancement Act of 1995, Pub. L. 104–113.

The National Environmental Policy Act (NEPA) requires Federal government agencies to study the impacts of their "major Federal actions significantly affecting the quality of the human environment" and prepare detailed statements on the environmental impacts of the action and alternatives to the action (United States Code, Vol. 42, Section 4332(C) [42 U.S.C. Sec. 4332(C)]; NEPA Sec. 102(C).

The Commission has determined under NEPA, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51 that this final rule would not be a major Federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not required.

As alternatives to the ASME Code, NRC-approved Code Cases provide an adequate level of safety. Also, use of NRC-approved Code Cases does not change the probability or consequences of accidents compared to the usage of ASME Code Cases. There are also no significant, non-radiological impacts associated with this action because no changes would be made affecting non-radiological plant effluents and because no changes would be made in activities that would adversely affect the environment.

The determination of this environmental assessment is that there will be no significant offsite impact to the public from this action.

VIII. Paperwork Reduction Act Statement

This final rule increases the burden on licensees applying ASME Code Case N–730 to maintain repair records of the current control dive bottom head penetrations in BWRs for the life of the reactor vessel (10 CFR 50.55a). The public burden for the information collection associated with Code Case N–730 is estimated to average 5 hours per request. In addition, the adoption of ASME Code Cases will result in fewer relief requests, a burden hour savings of 20 hours per request. Because the burden for the information collections in this rule is insignificant, Office of Management and Budget (OMB) clearance is not required. Existing requirements were approved by OMB, approval number 3150–0011.

Send comments on any aspect of these information collections to the Information Services Branch (T–5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, or by Internet electronic mail to *Infocollects.Resource@NRC.gov* and to the Desk Officer, Ms. Christine Kymn, Office of Information and Regulatory Affairs, NEOB–10202 (3150–0011), Office of Management and Budget, Washington, DC 20503.

Public Protection Notification

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

IX. Regulatory Analysis

The ASME Code Cases listed in the RGs to be incorporated by reference provide voluntary alternatives to the provisions in the ASME BPV Code for design, construction, and ISI of specific structures, systems, and components used in nuclear power plants. Implementation of these Code Cases is not required. Licensees use NRC-approved ASME Code Cases to reduce unnecessary regulatory burden or gain additional operational flexibility. It would be difficult for the NRC to provide these advantages independently of the ASME Code Case publication process without expending considerable additional resources.

The NRC has prepared a regulatory analysis addressing the qualitative benefits of the alternatives considered in this proposed rulemaking and comparing the costs associated with each alternative. The regulatory analysis is available to the public as indicated under the "Availability of Documents" Portion of this document.

X. Regulatory Flexibility Certification

Under the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the Commission certifies that this final rule would not impose a significant economical impact on a substantial number of small entities. This final rule would affect only the licensing and operation of nuclear power plants. The companies that own these plants are not "small entities" as defined in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

XI. Backfit Analysis

The provisions in this final rule allow applicants and licensees to voluntarily use NRC-approved ASME Code Cases, sometimes with conditions. Thus, the NRC finds that this final rule does not involve any provisions that constitute backfitting as defined in 10 CFR 50.109(a)(1), or otherwise violate the issue finality provisions in 10 CFR Part 52. Accordingly, a backfit analysis has not been prepared for this rule.

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

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

■ 1. The authority citation for Part 50 is revised to read as follows:

Authority: Secs. 102, 103, 104, 105, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 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, 2236, 2239, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note); Energy Policy Act of 2005, Pub. L. 109–58, 119 Stat. 194 (2005). Section 50.7 also issued under Pub. L. 95–601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 102–486, sec. 2902, 106 Stat. 3123 (42 U.S. C. 5841), Section 50.10 also issued under secs. 101, 185, 68 Stat. 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(d), 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). Sections 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 revising paragraphs (b) introductory text, (b)(4) introductory text, (b)(5) introductory text, (f)(2), (f)(3)(iii)(A), (f)(3)(iv)(A), (f)(4)(ii), (g)(2), (g)(3)(i), (g)(3)(ii), (g)(4)(i), and (g)(4)(ii) to read as follows:

§ 50.55a Codes and standards.

* * * * *

(b) Section III and XI of the ASME Boiler and Pressure Vessel Code and the ASME Code for Operation and

Maintenance of Nuclear Power Plants, which are referenced in paragraphs (b)(1), (b)(2), and (b)(3) of this section, were approved for incorporation by reference by the Director of the Office of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. NRC Regulatory Guide 1.84, Revision 35, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III" (July 2010); NRC RG 1.147, Revision 16, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1" (July 2010); and RG 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code" (June 2003), have been approved for incorporation by reference by the Director of the Office of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. These RGs list ASME Code cases that the NRC has approved in accordance with the requirements in paragraphs (b)(4), (b)(5), and (b)(6) of this section. Copies of the ASME Boiler and Pressure Vessel Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants may be purchased from the American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016. Single copies of NRC RG 1.84, Revision 35; 1.147, Revision 16; and 1.192 may be obtained free of charge by writing the Mail and Messenger Services, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; or by fax to 301–415–2289; or by e-mail to *Distribution.Resource@nrc.gov*. Copies of the ASME Codes and NRC RGs incorporated by reference in this section may be inspected at the NRC Technical Library, Two White Flint North, 11545 Rockville Pike, Rockville, MD 20852–2738, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal-register/cfr/ibr-locations.html.*

* * * * *

(4) *Design, Fabrication, and Materials Code cases.* Applicants and licensees may apply the ASME Boiler and Pressure Vessel Code cases listed in NRC RG 1.84, Revision 35 without prior NRC approval subject to the following:

* * * * *

(5) *In-service Inspection Code cases.* Licensees may apply the ASME Boiler and Pressure Vessel Code cases listed in RG 1.147, Revision 16, without prior NRC approval subject to the following:

* * * * *

(f) * * *

(2) For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued on or after January 1, 1971, but before July 1, 1974, pumps and valves which are classified as ASME Code Class 1 and Class 2 must be designed and be provided with access to enable the performance of inservice tests for operational readiness set forth in editions and addenda of Section XI of the ASME Boiler and Pressure Vessel Code incorporated by reference in paragraph (b) of this section (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16 or RG 1.192 that are incorporated by reference in paragraph (b) of this section) in effect 6 months before the date of issuance of the construction permit. The pumps and valves may meet the inservice test requirements set forth in subsequent editions of this Code and addenda which are incorporated by reference in paragraph (b) of this section (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16 or RG 1.192 that are incorporated by reference in paragraph (b) of this section), subject to the applicable limitations and modifications listed therein.

(3) * * *

(iii) (A) Pumps and valves, in facilities whose construction permit was issued before November 22, 1999, which are classified as ASME Code Class 1 must be designed and be provided with access to enable the performance of inservice testing of the pumps and valves for assessing operational readiness set forth in the editions and addenda of Section XI of the ASME Boiler and Pressure Vessel Code incorporated by reference in paragraph (b) of this section (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16 or RG 1.192 that are incorporated by reference in paragraph (b) of this section) applied to the construction of the particular pump or valve or the Summer 1973 Addenda, whichever is later.

* * * * *

(iv)(A) Pumps and valves, in facilities whose construction permit was issued before November 22, 1999, which are classified as ASME Code Class 2 and Class 3 must be designed and be provided with access to enable the performance of inservice testing of the pumps and valves for assessing operational readiness set forth in the editions and addenda of Section XI of the ASME Boiler and Pressure Vessel Code incorporated by reference in paragraph (b) of this section (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16, that are incorporated by reference in paragraph (b) of this section) applied to the construction of the particular pump or valve or the Summer 1973 Addenda, whichever is later.

* * * * *

(4) * * *

(ii) Inservice tests to verify operational readiness of pumps and valves, whose function is required for safety, conducted during successive 120-month intervals must comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph (b) of this section 12 months before the start of the 120-month interval (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16 or RG 1.192 that are incorporated by reference in paragraph (b) of this section), subject to the conditions listed in paragraph (b) of this section.

* * * * *

(g) * *

(2) For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued on or after January 1, 1971, but before July 1, 1974, components (including supports) which are classified as ASME Code Class 1 and Class 2 must be designed and be provided with access to enable the performance of inservice examination of such components (including supports) and must meet the preservice examination requirements set forth in editions and addenda of Section XI of the ASME Boiler and Pressure Vessel Code incorporated by reference in paragraph (b) of this section (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16, that are incorporated by reference in paragraph (b) of this section) in effect 6 months before the date of issuance of the construction permit. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of this Code which are incorporated by reference in paragraph (b) of this section (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16, that are incorporated by reference in paragraph (b) of this section), subject to the applicable limitations and modifications.

(3) * * *

(i) Components (including supports) which are classified as ASME Code Class 1 must be designed and be provided with access to enable the performance of inservice examination of these components and must meet the preservice examination requirements set forth in the editions and addenda of Section XI of the ASME Boiler and Pressure Vessel Code incorporated by reference in paragraph (b) of this section (or the optional ASME Code cases listed

in NRC RG 1.147, Revision 16, that are incorporated by reference in paragraph (b) of this section) applied to the construction of the particular component.

(ii) Components which are classified as ASME Code Class 2 and Class 3 and supports for components which are classified as ASME Code Class 1, Class 2, and Class 3 must be designed and be provided with access to enable the performance of inservice examination of these components and must meet the preservice examination requirements set forth in the editions and addenda of Section XI of the ASME Boiler and Pressure Vessel Code incorporated by reference in paragraph (b) of this section) applied to the construction of the particular component.

* * * * *

(4) * * *

(i) Inservice examination of components and system pressure tests conducted during the initial 120-month inspection interval must comply with the requirements in the latest edition and addenda of the Code incorporated by reference in paragraph (b) of this section on the date 12 months before the date of issuance of the operating license (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16, that are incorporated by reference in paragraph (b) of this section), subject to the conditions listed in paragraph (b) of this section.

(ii) Inservice examination of components and system pressure tests conducted during successive 120-month inspection intervals must comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph (b) of this section 12 months before the start of the 120-month inspection interval (or the optional ASME Code cases listed in NRC RG 1.147, Revision 16, that are incorporated by reference in paragraph (b) of this section), subject to the conditions listed in paragraph (b) of this section.

* * * * *

Dated at Rockville, Maryland, this 14th day of September 2010.

For the Nuclear Regulatory Commission.

Cynthia D. Pederson,

Acting Director, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–24814 Filed 10–4–10; 8:45 am]

BILLING CODE 7590–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2009–1069; Directorate Identifier 2009–NM–036–AD; Amendment 39–16442; AD 2010–20–08]

RIN 2120–AA64

Airworthiness Directives; The Boeing Company Model 747–100, 747–100B, 747–100B SUD, 747–200B, 747–200C, 747–200F, 747–300, 747–400, 747–400D, 747–400F, and 747SR Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD), which applies to all Boeing Model 747–100, 747–100B, 747–100B SUD, 747–200B, 747–200C, 747–200F, 747–300, 747–400, 747–400D, 747–400F, and 747SR series airplanes. That AD currently requires repetitive inspections to find cracking of the web, strap, inner chords, and inner chord angle of the forward edge frame of the number 5 main entry door cutouts, and repair, if necessary. This new AD requires expanding the inspection areas to include the frame segment between stringers 16 and 23. This AD reinstates the repetitive inspections specified above for certain airplanes. This AD also requires repetitive inspections for cracking of repairs. This AD results from additional reports of cracks that have been found in the strap and inner chord of the forward edge frame of the number 5 main entry door cutouts, between stringers 16 and 23. We are issuing this AD to detect and correct such cracks. This condition, if not corrected, could cause damage to the adjacent body structure, which could result in depressurization of the airplane in flight.

DATES: This AD becomes effective November 9, 2010.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 9, 2010.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H–65, Seattle, Washington 98124–2207; telephone 206–544–5000, extension 1; fax 206–766–5680; e-mail *me.boecom@boeing.com;* Internet *https://www.myboeingfleet.com.*

Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov;* or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800–647–5527) is the Document Management Facility, U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Ivan Li, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; telephone (425) 917–6437; fax (425) 917–6590.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD to supersede AD 2001–16–02, amendment 39–12370 (66 FR 41440, August 8, 2001). The existing AD applies to certain Model 747 series airplanes. That NPRM was published in the **Federal Register** on November 20, 2009 (74 FR 60215). That NPRM proposed to continue to require repetitive inspections to find cracking of the web, strap, inner chords, and inner chord angle of the forward edge frame of the number 5 main entry door cutouts between stringers 23 and 31, and repair, if necessary. The NPRM also proposed to require expanding the inspection areas to include the frame segment between stringers 16 and 23; reinstating the repetitive inspections specified for certain airplanes; and adding repetitive inspections for cracking of repairs.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been received on the NPRM.

Request To Exclude Large Cargo Freighters (LCFs) From the AD Applicability

Boeing requests we change the applicability in paragraph (c) of the NPRM to exclude LCFs. Boeing states that during modification into the LCF configuration, the 46-section from station 1960 to station 2360 was removed from the airplane. Boeing also states that this segment of the airplane