U.S. NUCLEAR REGULATORY COMMISSION

STANDARD REVIEW PLAN

6.6 INSERVICE INSPECTION AND TESTING OF CLASS 2 AND 3 COMPONENTS

REVIEW RESPONSIBILITIES

Primary - Organization responsible for the review of the inspection, testing, evaluation, and repair of mechanical equipment and components

Secondary - None

I. AREAS OF REVIEW

Inservice inspection (ISI) programs are based on the requirements of 10 CFR 50.55a, which requires that Code Class components meet the applicable inspection requirements set forth in Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (hereinafter “the ASME Code”) (Reference 16). ISI includes preservice examinations prior to initial plant startup as required by Subsubarticles IWC-2200 and IWD-2200 of Section XI of the ASME Code.

The specific areas of review are as follows:

1. Components Subject to Examination. The descriptive information in the applicant's safety analysis report (SAR) is reviewed to establish that all ASME Code Class 2 and Class 3 components, as defined in Article NCA-2000, "Classification of Components," of Section III of the ASME Code (Reference 15), subject to examination are included in the ISI Program.

USNRC STANDARD REVIEW PLAN

This Standard Review Plan, NUREG-0800, has been prepared to establish criteria that the U.S. Nuclear Regulatory Commission staff responsible for the review of applications to construct and operate nuclear power plants intends to use in evaluating whether an applicant/licensee meets the NRC's regulations. The Standard Review Plan is not a substitute for the NRC's regulations, and compliance with it is not required. However, an applicant is required to identify differences between the design features, analytical techniques, and procedural measures proposed for its facility and the SRP acceptance criteria and evaluate how the proposed alternatives to the SRP acceptance criteria provide an acceptable method of complying with the NRC regulations.

The standard review plan sections are numbered in accordance with corresponding sections in the Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition)." Not all sections of the standard format have a corresponding review plan section. The SRP sections applicable to a combined license application for a new light-water reactor (LWR) will be based on Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants (LWR Edition)," until the SRP itself is updated.

These documents are made available to the public as part of the NRC's policy to inform the nuclear industry and the general public of regulatory procedures and policies. Individual sections of NUREG-0800 will be revised periodically, as appropriate, to accommodate comments and to reflect new information and experience. Comments may be submitted electronically by email to NRR_SRP@nrc.gov.

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2. Accessibility. The descriptive information, including drawings, is reviewed to establish that the Section XI, Subarticle IWA-1500, "Accessibility," provisions for system accessibility are included in the applicant's layout and design of these systems.

3. Examination Categories and Methods. The required examination categories and methods included in Articles IWA-2000, IWC-2000, and IWD-2000, "Examination and Inspection," of Section XI are reviewed.

4. Inspection Intervals. The required examinations and inspections listed in the SAR and/or plant Technical Specifications are reviewed and compared to the requirements in Articles IWA-2000, IWC-2000, and IWD-2000 of Section XI to verify that they will be performed within the designated inspection interval.

5. Evaluation of Examination Results. The information concerning repair procedures is reviewed for compliance with Article IWA-4000, "Repair/Replacement Activities," of Section XI. The information concerning evaluation of examination results is reviewed for compliance with Articles IWC-3000 and IWD-3000, "Acceptance Standards," of Section XI. If the applicable ASME Code edition states that these requirements are in the course of preparation, the review should address suitable alternative provisions, such as those provided in Article IWB-3000 or those in later approved editions of the Code, as proposed by the applicant.

6. System Pressure Tests. The pressure test program is reviewed for compliance with Articles IWC-5000 and IWD-5000, "System Pressure Tests," of Section XI to establish that leakage and signs of structural distress are inspected as required by the ASME Code.

7. Code Exemptions from Examination. The ASME Code exemptions, as permitted by ASME Section XI, Subsubarticles IWC-1220 and IWD-1220, "Components Exempt from Examination," are reviewed.

8. Relief Requests. Requests for relief from the ASME Code Section XI examination requirements that are found to be impractical due to the limitations of design, geometry, or materials of construction of components are evaluated in accordance with 10 CFR 50.55a.

9. Code Cases. The acceptability of any ASME Code Cases that the applicant may have invoked in connection with the ISI program will be verified.

10. Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC). For design certification (DC) and combined license (COL) reviews, the applicant's proposed information on the ITAAC associated with the systems, structures, and components (SSCs) related to this SRP section is reviewed in accordance with SRP Section 14.3, "Inspections, Tests, Analyses, and Acceptance Criteria - Design Certification." The staff recognizes that the review of ITAAC is performed after review of the rest of this portion of the application against acceptance criteria contained in this SRP section. Furthermore, the ITAAC are reviewed to assure that all SSCs in this area of review are identified and addressed as appropriate in accordance with SRP Section 14.3.

11. COL Action Items and Certification Requirements and Restrictions. COL action items may be identified in the NRC staff's final safety evaluation report (FSER) for each certified design to identify information that COL applicants must address in the application. Additionally, DCs contain requirements and restrictions (e.g., interface requirements) that COL applicants must address in the application. For COL applications referencing a DC, the review performed under this SRP section includes information provided in response to COL action items and certification requirements and restrictions pertaining to this SRP section, as identified in the FSER for the referenced certified design.

12. Operational Program Description and Implementation. For a COL application, the staff reviews the final safety analysis report (FSAR) Table 13.x to ensure the Inservice Inspection and Testing of Class 2 and 3 Components Program is included. The staff reviews the operational program description and the proposed implementation milestones. Specific to this SRP section is Inservice Inspection and Testing Program based on the requirements of 10 CFR 50.55a, "Codes and Standards."

Review Interfaces

The listed SRP sections interface with this section as follows:

1. The review of the adequacy of programs for assuring the integrity of bolting and threaded fasteners is performed under SRP Section 3.13, "Threaded Fasteners."

2. The review to ensure that systems and components are appropriately classified in accordance with regulatory requirements and NRC quality group classification guidance, including verification that quality group B and C components meet the requirements for Code Class 2 and 3 components, respectively, is performed under SRP Section 3.2.2, "System Quality Group Classification," and SRP Section 5.2.1.1, "Compliance with the Codes and Standards Rule, 10 CFR 50.55a."

3. The review of preservice inspection and inservice inspection requirements for ASME Code Class 1 components of the reactor coolant pressure boundary is performed under SRP Section 5.2.4, "Reactor Coolant Pressure Boundary Inservice Inspection and Testing."

4. The review of the inservice inspection requirements for steam generator tubes is performed under SRP Section 5.4.2.2, "Steam Generator Tube Inservice Inspection."

5. The review of plant programs for surveillance, testing, inspection, and maintenance of service water systems is performed under SRP Section 9.2.1, "Station Service Water System." These programs may be coordinated with the inservice inspection and testing programs reviewed under this SRP section.

6. The augmented ISI program, as specified in SRP Section 3.6.2, that provides assurance against postulated piping failures of high-energy fluid systems between containment isolation valves is reviewed.

7. For OL or COL reviews, the review of the applicant's plan for achieving administrative control by conducting reviews of operating phase activities that are important to safety, including implementation of the inservice inspection and testing programs is performed under SRP Section 13.4, "Operational Review."

The specific acceptance criteria and review procedures are contained in the referenced SRP sections.

II. ACCEPTANCE CRITERIA

Requirements

Acceptance criteria are based on meeting the relevant requirements of the following Commission regulations:

1. 10 CFR 50.55a as it pertains to specification of the preservice and periodic inspection and testing requirements of the ASME Code for Class 2 and 3 systems and components.

2. General Design Criterion (GDC) 36 found in Appendix A to 10 CFR Part 50, as it pertains to designing the emergency core cooling system to permit appropriate periodic inspection of important safety components, such as spray rings in the reactor pressure vessel.

3. GDC 37 found in Appendix A to 10 CFR Part 50, as it pertains to designing the emergency core cooling system to permit appropriate testing to assure structural integrity, leak tightness, and the operability of the system.

4. GDC 39 found in Appendix A to 10 CFR Part 50, as it pertains to designing the containment heat removal system to permit inspection of important components, such as the torus and spray nozzles to asure the integrity and capability of the system.

5. GDC 40 found in Appendix A to 10 CFR Part 50, as it pertains to designing the containment heat removal system to permit appropriate pressure and functional testing.

6. GDC 42 found in Appendix A to 10 CFR Part 50, as it pertains to designing the containment atmospheric clean up system tp permit appropriate inspection of components such as filter frames and ducts.

7. GDC 43 found in Appendix A to 10 CFR Part 50, as it pertains to designing the containment atmospheric clean up system to permit appropriate periodic pressure and functional testing to assure structural integrity of components and the operability and performance of active components of the system, such as fans, filters, and dampers.

8. GDC 45 found in Appendix A to 10 CFR Part 50, as it pertains to designing the cooling water system tp permit appropriate periodic inspection of important components, such as heat exchangers.

9. GDC 46 found in Appendix A to 10 CFR Part 50, as it pertains to designing the cooling water system to permit appropriate pressure and functional testing to assure structura and leaktight integrity of it components.

10. 10 CFR 52.47(a)(1)(vi), as it relates to ITAAC (for design certification) sufficient to assure that the SSCs in this area of review will operate in accordance with the certification.

11. 10 CFR 52.97(b)(1), as it relates to ITAAC (for combined licenses) sufficient to assure that the SSCs in this area of review have been constructed and will be operated in conformity with the license and the Commission's regulations.

SRP Acceptance Criteria

Specific SRP acceptance criteria acceptable to meet the relevant requirements of the NRC's regulations identified above are as follows for review described in Subsection I of this SRP section. The SRP is not a substitute for the NRC's regulations, and compliance with it is not required. However, an applicant is required to identify differences between the design features, analytical techniques, and procedural measures proposed for its facility and the SRP acceptance criteria and evaluate how the proposed alternatives to the SRP acceptance criteria provide acceptable methods of compliance with the NRC regulations.

1. Components Subject to Inspection. The applicant's definition of ASME Code Class 2 and 3 components and systems subject to an ISI program is acceptable if it is in agreement with the NRC quality group classification system or the definitions in Article NCA-2000 of Section III of the ASME Code. The classification of components by the applicant is subject to review under SRP Section 3.2.2 for compliance with safety criteria pertaining to component classification. Where a specific item will be subject to inspection requirements different in any way from the ASME Code Section XI requirements corresponding to the item's Code Class, the exceptions for the item, including the inservice inspection requirements to be applied, should be clearly identified and described. Exceptions involving less stringent inspection requirements for Code Class 2 or 3 items other than those required by Section XI must be adequately justified. (Refer to SRP Section 3.2.2 or Article NCA-2000 of Section III of the ASME Code.)

2. Accessibility. The design and arrangement of Class 2 and 3 systems should include allowances for adequate clearances to conduct the examinations specified in Articles IWC-2000 and IWD-2000 at the frequency specified. The design and arrangement of system components are acceptable if adequate clearance is provided in accordance with Subarticle IWA-1500. Special design considerations are given to those systems that are intended to be examined during normal reactor operation.

3. Examination Categories and Methods. The examination categories and requirements specified in the SAR are acceptable if they are in agreement with the rules of Articles IWA-2000, IWC-2000, and IWD-2000. Every area subject to examination should fall within one or more of the examination categories and must be examined at least to the extent specified.

   The applicant's examination techniques and procedures used for preservice inspection and inservice inspection are acceptable if they are in agreement with the following criteria:

   A. The methods, techniques, and procedures for visual, surface, or volumetric examination are in accordance with Article IWA-2000.

B. Alternative examination methods, combination of methods, or newly developed techniques to those given in A. above are acceptable provided that the results are equivalent or superior. The acceptance standards for these alternate methods are given in Articles IWC-3000 and IWD-3000.

C. The methods, procedures, and requirements regarding qualification of personnel performing ultrasonic examination reflect the guidance provided in Appendix VII, "Qualification of Nondestructive Examination Personnel for Ultrasonic Examination," to Division 1 of Section XI of the ASME Code.

D. Performance demonstration for ultrasonic examination procedures, equipment, and personnel used to detect and size flaws are in accordance with the requirements of Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," to Division 1 of Section XI of the ASME Code.

4. Inspection Intervals. The ISI program schedule provided in the SAR is acceptable if the required examinations and pressure tests are specified for completion during each ten-year interval, hereinafter designated as the "inspection interval," and as required by ASME Section XI, Articles IWA-2000, IWC-2000, and IWD-2000.

5. Evaluation of Examination Results. The methods for evaluation of examination results are reviewed for compliance with Articles IWC-3000 and IWD-3000 in the Code. If the applicable edition of the Code states that these articles are in the course of preparation, the rules of Article IWB-3000 shall apply. The repair procedures are acceptable if they are in compliance with ASME Section XI, Article IWA-4000.

6. System Pressure Tests. The program provided in the SAR for Class 2 and 3 system pressure testing is acceptable if it meets the criteria of ASME Section XI, Articles IWC-5000 and IWD-5000.

7. Augmented ISI to Protect Against Postulated Piping Failures. The augmented ISI program for high-energy fluid system piping between containment isolation valves is acceptable if it specifies the following requirements:

A. Protective measures, structures, and guard pipes should not prevent the access required to conduct the inservice examinations specified in the Division 1 of Section XI of the ASME Code.

B. For those portions of high energy fluid system piping between containment isolation valves, the extent of inservice examination completed during each inspection interval should provide 100% volumetric examination of circumferential and longitudinal pipe welds within the boundary of these portions of piping.

C. For those portions of high-energy fluid system piping enclosed in guard pipes, inspection ports should be provided in the guard pipes to permit the required examination of circumferential pipe welds. Inspection ports should not be located in that portion of the guard pipe passing through the annulus of dual barrier containment structures.

D. The areas subject to examination should be defined in accordance with Article IWC-2000, Examination Category C-F for Class 2 piping welds.

8. Code Exemptions. The exemptions from Code examination requirements identified by the applicant are acceptable if they have been permitted by Subsubarticles IWC-1220 or IWD-1220 of Section XI of the ASME Code.

9. Relief Requests. Request for relief from the ASME Code Section XI examination requirements that are found to be impractical due to the limitations of design, geometry, or materials of construction of components are evaluated in accordance with 10 CFR 50.55a.

10. Code Cases. The exemptions from Code examination requirements identified by the applicant or licensee are acceptable if they have been permitted by appropriate ASME code cases.

11. Operational Programs. For COL reviews, the description of the operational program and proposed implementation milestones for the inservice inspection and testing programs for Class 2 and 3 components are reviewed in accordance with the requirements of 10 CFR 50.55a, "Codes and Standards." The implementation milestone for the inservice inspection program is the placement of the plant into commercial service per ASME code Section XI, IWA-2430(b).

Technical Rationale

The technical rationale for application of these requirements and/or SRP acceptance criteria to the areas of review addressed by this SRP section is discussed in the following paragraphs:

1. 10 CFR 50.55a, "Codes and Standards," requires, in paragraph (a)(1), that structures, systems, and components (SSCs) be designed, fabricated, erected, constructed, tested, inspected, and maintained to quality standards commensurate with the importance of the safety function they are intended to perform. 10 CFR 50.55a(b) incorporates, by reference, the ASME Boiler and Pressure Vessel Code. Throughout the service life of a boiling or pressurized water cooled nuclear power reactor, its Code Class 2 and Class 3 systems and components must meet the requirements of Section XI of the ASME Boiler and Pressure Vessel Code. 10 CFR 50.55a(g) addresses inservice inspection requirements. Section XI defines, for each Code Class, the time interval for inservice inspection, the scope of the inspection activity, the inspection sample, sample selection methodology, the method of inspection, the acceptance criteria for various types and sizes of material flaws identified during the inspection, and various other related technical details required for properly performing the required inservice inspection activity. Compliance with the requirements of 10 CFR 50.55a ensures that periodic inspections will be performed on all Class 2 and Class 3 components for the purpose of detecting incipient degradations, leakage, indications of mechanical or structural distress caused by aging, fatigue, and/or corrosion, prior to jeopardizing the ability of the affected systems or components to perform their intended safety functions.

2. General Design Criteria 36, 37, 39, 40, 42, 43, 45, and 46 require that the respective safety systems addressed by these criteria be designed such that they permit periodic inspection, pressure testing, and functional testing of system components and piping. Specific functional classes of components for each of the safety systems addressed are

identified in the General Design Criteria. The ISI program for Class 2 and Class 3 components relies upon these design provisions to allow performance of inservice inspections. Compliance with these General Design Criteria ensures that the design of the safety systems will allow accessibility of important components so that periodic inspections can be performed that detect degradation, leakage, signs of mechanical or structural distress caused by aging, and fatigue or corrosion, prior to jeopardizing the ability of the systems to perform their intended safety functions.

III. REVIEW PROCEDURES

The reviewer will select and emphasize material from the procedures described below, as may be appropriate for a particular case.

For each area of review specified in subsection I of this SRP section, the review procedure is identified below. These review procedures are based on the identified SRP acceptance criteria. For deviations from these specific acceptance criteria, the staff should review the applicant's evaluation of how the proposed alternatives to the SRP criteria provide an acceptable method of complying with the relevant NRC requirements identified in subsection II.

1. Components Subject to Inspection. The applicant's component and system classifications, the corresponding proposed inspection requirements for each classification, and the proposed exceptions are reviewed for agreement with the acceptance criteria of Subsection II.1 of this SRP section as the basis for determining the acceptability of component inclusion in the ISI program.

2. Accessibility. The design and arrangement of Class 2 and 3 systems are reviewed in terms of accessibility for ISI to establish that the design is in conformance with the acceptance criteria of Subsection II.2 of this SRP section. No remote inspection program is required for Code Class 2 or 3 components.

3. Examination Categories and Methods. The reviewer verifies that the examination categories and methods as described by the SAR are in conformance with the acceptance criteria in Subsection II.3 of this SRP section.

   The reviewer verifies that the training and requalification requirements of the applicant's ISI program are in conformance with applicable portions of Section XI of the ASME Code. Qualification of personnel performing ultrasonic examinations should contain the elements of Appendix VII to Section XI.

   The reviewer verifies that the ultrasonic examination systems required by the applicant's ISI program meet the requirements of Appendix VIII to Section XI, Division 1 of the ASME Code in accordance with the implementation requirements of 10 CFR 50.55a.

   The reviewer also verifies that an appropriate long-term monitoring program for potential wall-thinning of high-energy piping by erosion/corrosion, pursuant to Generic Letter 89-08 (Reference 14) and NUREG-1344 (Reference 11), has been incorporated into the ISI program.

4. Inspection Intervals. The ISI program for Class 2 and 3 components in the plant technical specifications is reviewed to establish that each area and component in the

program is inspected on a schedule in conformance with the acceptance criteria in Subsection II.4 of this SRP section.

5. Evaluation of Examination Results. The reviewer verifies that the SAR describes methods for evaluation of examination results in accordance with the acceptance criteria in Subsection II.5 of this SRP section.

6. System Pressure Test. The reviewer verifies that the SAR the describes the system pressure test program in accordance with the acceptance criteria in Subsection II.6 of this SRP section.

7. Augmented ISI to Protect Against Postulated Piping Failures. The reviewer verifies that the SAR describes an augmented ISI program that meets the acceptance criteria identified in Subsection II.7 of this SRP section.

8. Code Exemptions. The reviewer verifies that the exemptions from Code examinations identified by the applicant or licensee are in accordance with the acceptance criteria identified in Subsection II.8 of this SRP section.

9. Relief Requests. The reviewer determines if the applicant or licensee has demonstrated that a code requirement is impractical due to the limitations of design, geometry, or materials of construction of components.

10. Augmented Inspection of BWR Piping Susceptible to IGSCC. For ISI programs at BWR plants, the reviewer ascertains that the staff positions concerning augmented inspections for intergranular stress corrosion cracking (IGSCC) provided in NUREG-0313 Revision 2, Generic Letter 88-01, and Supplement 1 to Generic Letter 88-01 (References 10, 12, and 13, respectively) have been adequately addressed.

11. Operational Programs. The reviewer verifies that the program is fully described and that implementation milestones have been identified. The reviewer verifies that the program and implementation milestones are included in FSAR Table 13.x.

    Implementation of this program will be inspected in accordance with NRC Inspection Manual Chapter IMC-2504, “Construction Inspection Program - Non-ITAAC Inspections.”

12. For reviews of DC and COL applications under 10 CFR Part 52, the reviewer should follow the above procedures to verify that the design set forth in the safety analysis report, and if applicable, site interface requirements meet the acceptance criteria. For DC applications, the reviewer should identify necessary COL action items. With respect to COL applications, the scope of the review is dependent on whether the COL applicant references a DC, an ESP or other NRC-approved material, applications, and/or reports.

    After this review, SRP Section 14.3 should be followed for the review of Tier I information for the design, including the postulated site parameters, interface criteria, and ITAAC.

IV. EVALUATION FINDINGS

The reviewer verifies that the applicant has provided sufficient information and that the review and calculations (if applicable) support conclusions of the following type to be included in the staff's safety evaluation report. The reviewer also states the bases for those conclusions.

1. To ensure that no deleterious defects develop during service in ASME Code Class 2 system components, selected welds and weld heat-affected zones are inspected prior to reactor startup and periodically throughout the life of the plant. In addition, Code Class 2 and 3 systems receive visual inspections while the systems are pressurized in order to detect leakage, signs of mechanical or structural distress, and corrosion.

   The applicant (licensee) has stated that the inservice inspection (ISI) program will comply (complies) with the rules published in 10 CFR 50.55a, and Section XI of the ASME Code, ( ) Edition, including addenda through the ( ) Addenda. The ISI program will consist of a preservice inspection plan and an inservice inspection plan.

   Examples of Code Class 2 systems are: residual heat removal systems, portions of chemical and volume control systems (in PWR plants), portions of control rod drive systems (in BWR Plants), and engineered safety features not part of Code Class 1 systems. Examples of Code Class 3 systems are: component cooling water systems and portions of radwaste systems. All of these systems transport fluids.

   The staff concludes that the inservice inspection program is acceptable and meets the inspection and pressure testing requirements of General Design Criteria 36, 37, 39, 40, 42, 43, 45, and 46 and 10 CFR 50.55a. This conclusion is based on the applicant's or licensee's meeting the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," as reviewed, by the staff and determined to be appropriate for this application.

For DC and COL reviews, the findings will also summarize (to the extent that the review is not discussed in other SER sections) the staff's evaluation of the ITAAC, including design acceptance criteria, as applicable, and interface requirements and combined license action items relevant to this SRP section.

V. IMPLEMENTATION

The staff will use this SRP section in performing safety evaluations of DC applications and license applications submitted by applicants pursuant to 10 CFR Part 50 or 10 CFR Part 52. Except when the applicant proposes an acceptable alternative method for complying with specified portions of the Commission’s regulations, the staff will use the method described herein to evaluate conformance with Commission regulations.

The provisions of this SRP section apply to reviews of applications docketed six months or more after the date of issuance of this SRP section, unless superseded by a later revision.

Implementation schedules are defined in 10 CFR 50.55a and Generic Letter 88-01 (Reference 12).

VI. REFERENCES

1. 10 CFR 50.55a, "Codes and Standards."

2. 10 CFR Part 50, Appendix A, General Design Criterion 36, "Inspection of Emergency Core Cooling System"

3. 10 CFR Part 50, Appendix A, General Design Criterion 37, "Testing of Emergency Core Cooling System."

4. 10 CFR Part 50, Appendix A, General Design Criterion 39, "Inspection of Containment Heat Removal System."

5. 10 CFR Part 50, Appendix A, General Design Criterion 40, "Testing of Containment Heat Removal System."

6. 10 CFR Part 50, Appendix A, General Design Criterion 42, "Inspection of Containment Atmosphere Cleanup Systems."

7. 10 CFR Part 50, Appendix A, General Design Criterion 43, "Testing of Containment Atmosphere Cleanup Systems."

8. 10 CFR Part 50, Appendix A, General Design Criterion 45, "Inspection of Cooling Water Systems."

9. 10 CFR Part 50, Appendix A, General Design Criterion 46, "Testing of Cooling Water System."

10. NUREG-0313, Revision 2, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping," June 1986.

11. NUREG-1344, "Erosion/Corrosion Induced Pipe Wall Thinning in U.S. Nuclear Power Plants," April 1989.

12. NRC letter to all licensees of operating boiling water reactors (BWRs) and holders of construction permits for BWRs, "NRC Position on Intergranular Stress Corrosion Cracking (IGSCC) in BWR Austenitic Stainless Steel Piping (Generic Letter No. 88-01)," January 25, 1988.

13. NRC letter to all licensees of operating boiling water reactors (BWRs) and holders of construction permits for BWRs, "NRC Position on Intergranular Stress Corrosion Cracking (IGSCC) in BWR Austenitic Stainless Steel Piping (Generic Letter No. 88-01, Supplement 1)," February 4, 1992.

14. NRC letter to All holders of operating licenses or construction permits for nuclear power plants, "Erosion/Corrosion-Induced Pipe Wall Thinning (Generic Letter No. 89-08)," May 2, 1989.

15. ASME Boiler and Pressure Vessel Code, Section III, "Rules for Construction of Nuclear Facility Components," Article NCA-2000, "Classification of Components," American Society of Mechanical Engineers.

16. ASME Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," Division 1, "Rules for Inspection and Testing of Components of Light-Water Cooled Plants," American Society of Mechanical Engineers.

17. NRC Inspection Manual Chapter IMC-2504, “Construction Inspection Program - Non-ITAAC Inspections,” issued April 25, 2006.

PAPERWORK REDUCTION ACT STATEMENT

The information collections contained in the Standard Review Plan are covered by the requirements of 10 CFR Part 50 and 10 CFR Part 52, and were approved by the Office of Management and Budget, approval number 3150-0011 and 3150-0151.

PUBLIC PROTECTION NOTIFICATION

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

SRP Section 6.6
Description of Changes

This SRP section affirms the technical accuracy and adequacy of the guidance previously provided in (Draft) Revision 2, dated April 1996 of this SRP. See ADAMS accession number ML052070450.

In addition this SRP section was administratively updated in accordance with NRR Office Instruction, LIC-200, Revision 1, "Standard Review Plan (SRP) Process." The revision also adds standard paragraphs to extend application of the updated SRP section to prospective submittals by applicants pursuant to 10 CFR Part 52.

The technical changes are incorporated in Revision 2, dated [Month] 2007:

Review Responsibilities - Reflects changes in review branches resulting from reorganization and branch consolidation. Change is reflected throughout the SRP.

I. AREA OF REVIEW:

1. Reformatted the section with new numbering system. Incorporated reference to 10 CFR 52 from draft revision 1 - April 1996. Incorporated generic paragraphs relating to certified designs, ESPs, and COLs.

2. Relocated item 7 on augmented ISI to item 6 at "interfaces."

II ACCEPTANCE CRITERIA

1. Reformatted the section with new numbering system. Incorporated reference to 10 CFR 52 from draft revision 1 - April 1996. Incorporated generic paragraphs relating to certified designs, ESPs, and COLs.

2. A few Specific Acceptance criteria (items 1 through 9) elaborated to define the design requirement in some detail.

III. REVIEW PROCEDURES

1. Reformatted the section with new numbering system. Incorporated reference to 10 CFR 52 from draft revision 1 - April 1996. Incorporated generic paragraphs relating to certified designs, ESPs, and COLs.

IV. EVALUATION FINDINGS

None.

V. IMPLEMENTATION

None.

VI. REFERENCES

None.