

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

TECHNICAL REQUIREMENTS INSTRUCTION

1-TRI-0-10

ASME SECTION XI ISI/NDE PROGRAM

Revision 0

Unit

QUALITY RELATED

PREPARED BY: Kevin E. Casey

RESPONSIBLE ORGANIZATION: Mechanical/Nuclear Engineering

APPROVED BY: W L Elliott DATE: 4/10/96

EFFECTIVE DATE: 5-13-96

LEVEL OF USE: CONTINUOUS

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PDR ADOCK 05000390
Q PDR

WBN 0	ADMINISTRATION OF SITE PROCEDURES	SSP 2.03 Revision 14 Page 31 of 47
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APPENDIX A
Page 1 of 1

WATTS BAR NUCLEAR PLANT PROCEDURE CONTROL FORM					
SECTION 1: INITIATION OF PROCEDURE ACTION					
Procedure No. <u>1-TRI-0-10</u>	Revision/Change No. <u>0/CN-1</u>	Title: <u>ASME SECTION XI ISI/NOE PROGRAM</u>			
Requested Procedure Action: (Check as appropriate)				(Check if needed)	
<input type="checkbox"/> New Procedure <input type="checkbox"/> Change Notice <input type="checkbox"/> One-Time Only Change <input type="checkbox"/> Revision <input checked="" type="checkbox"/> Nonintent Change <input type="checkbox"/> W/O One-Time Review <input type="checkbox"/> Cancellation <input type="checkbox"/> MSPL Only Change <input type="checkbox"/> Contractor Procedure <input type="checkbox"/> Temp. Proc.: Exp. Date _____ (30 Calendar Days Limit)				<input type="checkbox"/> Place on Admin Hold <input type="checkbox"/> Remove from Admin Hold	
Reason For Procedure Action: (Only check one box)					
<input type="checkbox"/> Corrective Action <input type="checkbox"/> Technical Deficiency <input type="checkbox"/> Design Change Notice <input checked="" type="checkbox"/> Other: <u>MINOR CHANGE</u> <input type="checkbox"/> Commitment <input type="checkbox"/> Enhancement <input type="checkbox"/> Nuclear Experience Review					
Requestor/Preparer Name (Print) <u>KEVIN E CASEY</u>			Date <u>5-2-96</u>	Phone <u>1501</u>	
SECTION 2: REVIEWS AND CONCURRENCE					
ORGANIZATION	SIGNATURE	DATE	ORGANIZATION	SIGNATURE	DATE
Tech Reviewer	<u>[Signature]</u>	<u>5/2/96</u>			
TEMPORARY APPROVAL OF NONINTENT CHANGE: (N/A for other type changes)					
SRO: <u>N/A</u>		MANAGER: <u>N/A</u>			
Signature _____		Signature _____		Date _____	
SECTION 3: SAFETY ASSESSMENT REVIEW					
1. If the change is a nonintent, mark question 2 NO and proceed to Section 4.					
2. Is a Safety Assessment (SA) Required (See MSPL and SSP-12.13)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If NO, proceed to Section 4, otherwise perform Appendix E, Safety Assessment.					
3. If Safety Assessment is required, transmit Appendix E, original to DCRM after PCF approval.					
SECTION 4: APPROVAL AND EFFECTIVE DATE					
Sponsor: <u>[Signature]</u>		Sponsor Org: <u>NE</u>		Effective Date <u>5/13/96</u>	
Signature _____		Date _____			
PORC or Approving Manager (if required): <u>N/A</u>		Signature _____		Meeting No. <u>N/A</u>	
Plant Manager (if required): <u>N/A</u>		Signature _____		Date _____	
Signature _____		Date _____			
SECTION 5: MSPL UPDATE					
NOTE: Complete only those parts that require a change to MSPL. Complete all for Revision 0.					
Quality Related	<input type="checkbox"/> YES <input type="checkbox"/> NO	QA: _____			
QA Review Req'd	<input type="checkbox"/> YES <input type="checkbox"/> NO	Signature _____ Date _____			
PORC Review Req'd	<input type="checkbox"/> YES <input type="checkbox"/> NO	Signature _____ Date _____			
CIPTE:	<input type="checkbox"/> YES <input type="checkbox"/> NO	Signature _____ Date _____			
SA Req'd	<input type="checkbox"/> YES <input type="checkbox"/> NO	Sponsor Org: _____ New Sponsor Org: _____			
Sponsor Transfer:	<input type="checkbox"/> YES <input type="checkbox"/> NO	Sponsor: _____ Signature _____ Date _____			
Level of Use:	<input type="checkbox"/> Continuous <input type="checkbox"/> Reference <input type="checkbox"/> Information <input type="checkbox"/> Multiple <input type="checkbox"/> N/A	New Sponsor: _____ Signature _____ Date _____			

REVISION LOG

REVISION OR CHANGE NUMBER	EFFECTIVE DATE	AFFECTED PAGE Nos	DESCRIPTION OF REVISION/CHANGE
0	5-13-96*	all	Initial issue.
CN-1	5-13-96*	94	Administrative change to correct wording.

* The effective date shown is for administrative purposes only. The actual effective date is the date of "Commercial Operation".

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COVERSHEET

Owner: Tennessee Valley Authority

Address of Corporate Office: Chattanooga Office Complex
1101 Market Street
Chattanooga, Tennessee 37402-2801

Name and Address of Nuclear Power Plant: Watts Bar Nuclear Plant
P.O. Box 2000
Spring City, Tennessee 37381-2000

Applicable Nuclear Power Units: Watts Bar Nuclear Plant, Unit 1

Commercial Operation Date: Month, 1996

1.0 INTRODUCTION

1.1 PURPOSE

In accordance with Title 10 Code of Federal Regulations (CFR) Part 50.55a(g), this program implements the Watts Bar Nuclear Plant (WBN) Unit 1 Technical Surveillance Requirement 3.4.5.2 and fulfills the requirements of SSP-6.10, ASME Section XI Inservice Inspection and Augmented Nondestructive Examinations. This program is organized to comply with the inservice inspection (ISI) nondestructive examination (NDE) requirements of the 1989 Edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Division 1, Articles 1000, 2000, 3000, and 6000.¹

This ISI/NDE Program is an administrative Technical Requirement Instruction (TRI) employed to obtain data via NDE of ASME Section XI Code Class 1, 2, and 3 equivalent components to determine acceptance of components for continued service during operation and if a flaw is an isolated case or of a generic nature. It shall serve as TVA's ISI/NDE plan and schedule in accordance with the requirements of IWA-1400 for the first ISI interval.

This ISI/NDE Program reflects the built-in limitations of the original plant design, geometry, construction, component materials, and the current technology or state-of-the-art nondestructive examination techniques. It specifies the number of components to be examined, the examination methods to be used and provides schedule tables from which specific items are scheduled for examination. These items are described and detailed in ISI scan plans.

1.2 SCOPE (APPLICABILITY)

This program outlines details for planning and implementing the first ISI/NDE inspection interval for ASME Section XI Code Class 1, 2, and 3 equivalent components at WBN in accordance with IWA-2432, Inspection Program B.

Elements of ASME Section XI, such as Pump and Valve Testing, Snubber Inservice Examination and Testing (specifically the inservice testing requirements of IWF-5000), Repair and Replacements, System Pressure Tests (including the associated Categories B-P, C-H, D-A, D-B, and D-C, VT-2 Visual Examinations), and Steam Generator Tube Examinations (Examination Category B-Q) are covered by other procedures.

The TVA Flow Diagrams and the ISI Drawings are used to identify the components and systems to be examined (see Appendix F for listing).

Personnel responsible for performance of the examinations should familiarize themselves with the requirements of this program prior to performing the examinations. Specifics concerning performance of NDE are not a part of this program, but are included in Inspection Services Organization Programs Manual (refer to Inspection and Examination Program (IEP) series).

1.3 CODES OF RECORD AND CODE CASES

A. CURRENT CODE REQUIREMENTS AND CODE CASES

The Code of Record for the first inspection interval of Unit 1 is the 1989 Edition of the ASME Boiler and Pressure Vessel Code, Section XI, Division 1 in accordance with 10 CFR 50.55a(g)(4). Additionally, in accordance with 10 CFR 50.55a(b)(2)(ii), the extent of examination for Examination Category B-J welds shall be in accordance with the 1974 Edition, Summer 1975 Addenda of ASME Section XI. Extent of examination is defined as the criteria for the selection of the Class 1 Category B-J welds to be examined. The extent of examination specifies the length of weld to be examined. See Section 7.2.A.6.

Certification of NDE personnel shall be in accordance with the 1984 Edition of ASNT SNT-TC-1A.

Regulatory Guide 1.150, Rev. 1, "Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations," shall be used for Reactor Vessel Weld examinations as outlined in the applicable NDE procedure.

Code cases used shall be implemented in their entirety unless approved by NRC or stated in Regulatory Guide 1.147.

The following Code Cases have been accepted for use by the NRC in Regulatory Guide 1.147 and will be used during implementation of this program:

1. Code Case N-307-1, Revised Ultrasonic Examination Volume for Class 1 Bolting, Table 1WB-2500-1, Examination Category B-G-1, When the Examinations Are Conducted From the Center-Drilled Hole, Section XI, Division 1.
2. Code Case N-435-1, Alternative Examination Requirements for Vessels with Wall Thickness 2 in. or Less, Section XI, Division 1.
3. Code Case N-457, Qualification Specimen Notch Location for Ultrasonic Examination of Bolts and Studs, Section XI, Division 1.
4. Code Case N-460, Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1.
5. Code Case N-461, Alternative Rules for Piping Calibration Block Thickness, Section XI, Division 1.
6. Code Case N-463-1 Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 Ferritic Piping That Exceed the Acceptance Standards of IWB-3514.2, Section XI, Division 1.
7. Code Case N-481, Alternative Examination Requirements for Cast Austenitic Pump Casings, Section XI, Division 1.
8. Code Case N-491, Alternative Rules for Examination of Class 1, 2, 3, and MC Component Supports of Light-Water Cooled Power Plants, Section XI, Division 1.
9. Code Case N-494-1, Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 Ferritic Piping That Exceed the Acceptance Standards of IWB-3514.2, Section XI, Division 1.

10. Code Case N-503, Limited Certification of Nondestructive Examination Personnel Section XI, Division 1.

The following Code Cases will be used during implementation of this program pending approval by the NRC:

1. Code Case N-509, Alternative Rules for the Selection and Examination of Class 1, 2, and 3 Integrally Welded Attachments, Section XI, Division 1.
2. Code Case N-524, Alternative Examination Requirements for Longitudinal Welds in Class 1 and 2 Piping Section XI, Division 1.

B. HISTORY OF PSI AND ISI PROGRAMS

A Preservice Inspection Program was performed in accordance with Technical Instruction (TI) 50A, ASME Section XI Preservice Inspection Program.

The WBN Unit 1 operating license (low power) was issued on November 9th, 1995. The first interval ISI program is scheduled for **Month**, 1996 to **Month**, 2006. (Note: Date of commercial operation to be start date and end date will be ten years later)

1.4 FREQUENCY INSPECTION INTERVAL AND INSPECTION PERIODS

The inservice examinations required by ASME Section XI shall be performed during each 10-year interval of service (inspection interval). The inspection intervals represent calendar years after the unit has been placed into commercial service. The inspection interval may be decreased or extended by as much as one year to coincide with a plant outage in accordance with IWA-2430(d), IWB-2412(b), and Code Case N-491-2410(c). In addition, if the unit is out of service continuously for six months or more, the inspection interval may be extended for an equivalent period in accordance with IWA-2430(e). The inspection intervals for component replacements, additions, and alterations that may be required during the service lifetime of the power unit shall coincide with remaining intervals, as determined by the calendar years of power unit service at the time of replacements, additions, or alterations.

Except for examinations that may be deferred to the end of the inspection interval, the required examinations shall be performed in accordance with the following schedule that complies with IWA-2432; IWB-2412, Program B and Table IWB-2412-1; IWC-2412, Program B and Table IWC-2412-1; IWD-2412, Program B and Table IWD-2412-1; and Code Case N-491-2410(b) and (c) and Table (N-491)-2410-2, Program B.

The examinations deferred to the end of the inspection interval shall be completed by the end of the inspection interval.

This instruction is to be scheduled to be performed at least once each refueling outage.

1.5 TECHNICAL REQUIREMENTS FULFILLED AND MODES

Performance of this TRI satisfies the following Technical Surveillance Requirements:²

SURVEILLANCE REQUIREMENT	APPLICABLE MODES	PERFORMANCE MODES
TSR 3.4.5.1	All Modes	Modes 5 and 6
TSR 3.4.5.2	All Modes	All Modes

2.0 DEVELOPMENTAL REFERENCES

2.1 WBN Unit 1 Technical Surveillance Requirement 3.4.5.1 and 3.4.5.2.

2.2 WBN Final Safety Analysis Report

- A. Section 3.2, Classification of Structures, Systems and Components
- B. Section 5.2.6, Pump Flywheels (Reactor Coolant Pump)
- C. Section 5.2.8, Inservice Inspection of ASME Code Class 1 Components
- D. Section 5.4.4.4, Inservice Inspection (Reactor Vessel and Appurtenances)
- E. Section 6.6, Inservice Inspection of ASME Code Class 2 and 3 Components

2.3 NRC Documents

- A. 10 CFR Part 50.55a(g), Codes and Standards, Inservice Inspection Requirements
- B. 10 CFR Part 50.2, Definitions
- C. Regulatory Guide 1.14, Reactor Coolant Pump Flywheel Integrity
- D. Regulatory Guide 1.26, Quality Group Classification and Standards for Water, Steam, and Radioactive Waste Containing Components of Nuclear Power Plants
- E. Regulatory Guide 1.147, Inservice Inspection Code Case Acceptability ASME Section XI Division 1
- F. Regulatory Guide 1.150, Ultrasonic Testing of Reactor Vessel Welds during Preservice and Inservice Examinations

2.4 ASME Reference Documents

- A. ASME Boiler and Pressure Vessel Code, Section XI, Division 1, 1974 Edition, Summer 1975 Addenda
- B. ASME Boiler and Pressure Vessel Code, Section XI, Division 1, 1989 Edition
- C. ASME Section XI Code Cases as listed in Section 1.3

2.5 Plant Procedures & Instructions

A. Site Standard Practice

1. SSP-2.09, Records Management
2. SSP-3.01, Quality Assurance Program
3. SSP-3.04, Corrective Action Program
4. SSP-4.05, Regulatory Reporting Requirements
5. SSP-5.51, Radiological Work Control
6. SSP-6.02, Maintenance Management System
7. SSP-6.07, Control of Measuring and Test Equipment
8. SSP-6.09, Repairs / Replacements of ASME Section XI Components
9. SSP-6.10, ASME Section XI Inservice and Augmented Nondestructive Examinations
10. SSP-7.02, Outage Management
11. SSP-7.58, Criteria for the Erection of Scaffolds/Temporary Work Platforms and Ladders Including Those in Seismically Qualified Structures
12. SSP-8.01, Conduct of Testing
13. SSP-8.02, Surveillance Program
14. SSP-9.03, Plant Modifications and Design Change Control
15. SSP-12.08, Foreign Material Exclusion
16. SSP-13.02, Chemical Traffic Control (CTC) Program

B. Plant Administrative Instructions

1. PAI-2.03, Containment Access

C. WBN Maintenance Instructions

1. MI-0.002, Valve Maintenance
2. MI-0.014, Pressure Retaining Bolted Connections
3. MI-68.001, Removal of Reactor Pressure Vessel Head and Attachments
5. MI-68.004, Reactor Coolant Pump Seal Maintenance
6. MI-68.007, Removal and Installation of Steam Generator Primary Manway Covers

7. MI-68.14, Removal and Replacement of Pressurizer Manway Cover
8. MI-68.18, Removal and Replacement of Reactor Coolant Pump Main Flange Bolts

D. Inspection and Examination Procedures

1. IEP-100, Administration of Nondestructive Examination (NDE) Procedures
2. IEP-200, Qualification and Certification Requirements for NP NDE Personnel
3. IEP-203, Control of Calibration Standards

2.6 ISI Drawings (See Appendix F)

2.7 Abbreviations

ALARA	As Low As Reasonably Achievable
ASNT	American Society for Nondestructive Testing
ASME	American Society of Mechanical Engineers
CFR	Code of Federal Regulations
DCRM	Document Control and Records Management
IEP	Inspection and Examination Procedures
ISI	Inservice Inspection
NDE	Nondestructive Examination
NRC	Nuclear Regulatory Commission
RADCON	Radiological Control
RFR	Request for Relief
RWP	Radiation Work Permit
SI	Surveillance Instruction
SSP	Site Standard Practice
WR/WO	Work Request/Work Order

3.0 PREREQUISITES AND PRECAUTIONS

3.1 Prerequisites

- A. When craft support of minor or similar maintenance (examples: scaffolding, insulation removal, buffing of welds using Scotchbrite pads, and cleaning bolts) is required to facilitate performance of this TRI, a WR/WO may be used. This WR/WO shall be processed in accordance with SSP 6.02.

Additional WRs are required to remove fire barrier insulation foam in sleeves, piping support clamps, steam generator support rings, reactor coolant pump flywheel access covers and plugs, etc.

- B. Contact RADCON for radiation work permit (RWP)/ALARA preplanning requirements. Coordination with RADCON should begin as soon as components are identified to be scheduled for examination during a particular refueling outage.

3.2 Precautions

- A. Safety belts should be worn when working from scaffolding or ladders in accordance with SSP-7.58.

- B. Protective clothing, such as long-sleeve shirts, should be worn when working around hot pipes and equipment.
- C. Care should be exercised when climbing on plant structures and piping to ensure firm footing and to prevent damaging site equipment. Walking on flex hoses and insulation shall be avoided.
- D. Efforts should be made to ensure proper planning to reduce delays and radiation exposure in performance of the work.
- E. Read and observe all applicable precautions as indicated in WBN Instruction PAI-2.03, Containment Access, and SSP 12.08, Foreign Material Exclusion.

4.0 SPECIAL TOOLS AND EQUIPMENT

Equipment shall be specified by individual NDE Procedures.

5.0 ACCEPTANCE STANDARDS

The acceptance criteria shall be in accordance with IWA-3000 and the individual NDE Procedures of IEP-100.

Evaluations of examinations in accordance with IWB-3132.4, IWB-3142.4, IWC-3122.4, or IWC-3132.3 shall be submitted to the NRC. This information shall be submitted with the Inservice Inspection Summary Report or, if deemed necessary, a separate report shall be submitted. The evaluations shall be documented on or referenced on the Notification of Indication (see Section 7.3).

6.0 QUALIFICATIONS OF NDE PERSONNEL

Personnel performing NDE operations shall be qualified and certified in accordance with IWA-2300 and IEP-200.

7.0 IMPLEMENTATION AND RESPONSIBILITIES

Any revisions to this program initiated by other groups shall be submitted to ISI/NDE for approval prior to incorporating the revisions into this program.

Responsibilities shall be in accordance with SSP-6.10.

7.1 NDE EXAMINATIONS

- A. NDE methods shall be in accordance with IWA-2200 of ASME Section XI and this program as scheduled in Appendices A-D.
- B. NDE shall be performed in accordance with IWA-2200 and the individual NDE Procedures of IEP-100.
- C. In accordance with IWA-2600, a reference system shall be established for all welds and areas subject to surface or volumetric examination. Each such weld and area shall be located and identified by a system of reference points in accordance with applicable NDE procedures.

- D. The preservice visual examinations required by IWB-2200 and performed in accordance with IWA-2200 shall be evaluated by comparing the examinations results with the acceptance standards specified in Table IWB-3410-1.
- E. Volumetric and surface examination results shall be compared with recorded results of the preservice examination and prior inservice examinations (if applicable).

7.2 COMPONENTS SUBJECT TO EXAMINATION

A. ASME CLASS 1 EQUIVALENT COMPONENTS SUBJECT TO EXAMINATION (IWB)

1. The ASME Class 1 equivalent systems subject to examination are: Chemical and Volume Control System; Reactor Coolant System; Reactor Coolant System Main Loop; Residual Heat Removal System; and Safety Injection System. The specific components subject to examination are identified on drawings listed in Appendix F, ISI Drawings List.
2. Components are scheduled for examination in accordance with ASME Section XI, Table IWB-2500-1. The number of components within each system, the number selected for examination during the interval and the number selected for examination by period are provided in Appendix A. ASME Class 1 valves subject to examination are listed in Appendix E.
3. The rules of IWB-1220 (a), (b) and (c) have been used to establish exemption criteria for components and establish the numbers in Appendix A. Components exempted from examination include components that are connected to the reactor coolant system and part of the reactor coolant pressure boundary, and that are of such a size and shape so that upon postulated rupture the resulting flow of coolant from the reactor coolant system under normal plant operating conditions is within the capacity of makeup systems which are operable from on-site emergency power; piping of NPS 1 and smaller, except for steam generator tubing; components and their connection in piping of NPS 1 and smaller; and, reactor vessel head connections and associated piping, NPS 2 and smaller, made inaccessible by control rod drive penetrations.
4. Examination Category B-A, B-B, B-D, B-E, B-F, B-G-1, B-G-2, B-M-1, B-L-2, B-M-2, B-N-1, B-N-2, B-N-3 and B-O components shall be selected for examination in accordance with Table IWB-2500-1, 1989 Edition of ASME Section XI.
5. Category B-J circumferential welds shall be selected to provide a 25 percent sample this interval. WBN does not have stress level calculations as required for selection per Table IWB-2500-1, Examination Category B-J, Note: (1)(b). The Code basis for this method of selection of Item Numbers B9.11, B9.12, B9.21, B9.31, B9.32, and B9.40 is Table IWB-2500-1, Examination Category B-J, 1989 Edition of Section XI except the extent of examination is determined by the requirements of Table IWB-2500 and Table IWB-2600, Examination Category B-J, 1974 Edition with Addenda through Summer 1975 as allowed by 10 CFR50.55a(b)(2)(ii).
6. ASME Class 1 equivalent piping longitudinal welds, Examination Category B-J, Item Numbers B9.12 and B9.22, will not be tabulated in Appendix A. Longitudinal welds will be examined in accordance with Code Case N-524, Paragraph (a), (b) and (b)(2).
7. Examination requirements for ASME Class 1 equivalent integrally welded attachments, Examination Categories B-H and B-K-1, shall be in accordance with Code Case N-509. See Section 7.2.D.

8. Examination requirements for ASME Class 1 equivalent component supports, Examination Category F-A, shall be in accordance with Code Case N-491. See Section 7.2.E.
9. Examination coverage of ASME Class 1 equivalent welds will be in accordance with Code Case N-460 unless impractical due to original plant design. In this case the examination will be processed in accordance with Section 7.8.
10. Examination requirements for Cast Austenitic Pump Casings, Examination Category B-L-1, Item Number B12.10 will be in accordance with Code Case N-481. The evaluation required by N-481 (d) was performed by Westinghouse and documented in WCAP 13045, "Compliance to ASME Code Case N-481 of the Primary Loop Pump Casing Westinghouse Type Nuclear Steam Supply System. (L39 911118 005)"

B. ASME CLASS 2 EQUIVALENT COMPONENTS SUBJECT TO EXAMINATION (IWC)

1. ASME Class 2 equivalent systems subject to examination are: Containment Spray System; Feedwater System; High Pressure Safety Injection System (includes Containment Spray, Chemical Volume Control, Safety Injection and Residual Heat Removal,); Main Steam System; Residual Heat Removal System; and Safety Injection System. The specific components subject to examination are identified on drawings listed in Appendix F, ISI Drawings List.
2. Components are scheduled for examination in accordance with ASME Section XI, Table IWC-2500-1, 1989 Edition of ASME Section XI. The number of components within each system, the number selected for examination during the interval and the number selected for examination by period are provided in Appendix B. ASME Class 2 valves subject to examination are listed in Appendix E.
3. The rules of IWC-1221 and IWC-1222 have been used to establish exemption criteria for components and establish the numbers in Appendix B.
 - a. Components within Residual Heat Removal (RHR), Emergency Core Cooling (ECC), and Containment Heat Removal (CHR) Systems or portions of systems exempted from examination include vessels, piping, pumps, valves and other components NPS 4 and smaller in all systems except high pressure safety injection systems; vessels, piping, pumps, valves and other components NPS 1-1/2 and smaller in high pressure safety injection system; component connections NPS 4 and smaller (including nozzles, socket fittings, and other connections) in vessels, piping, pumps, valves, and other components of any size in all systems except high pressure safety injection systems; component connections NPS 1-1/2 and smaller (including nozzles, socket fittings, and other connections) in vessels, piping, pumps, valves, and other components of any size in high pressure safety injection systems; vessels, piping, pumps, valves, other components, and component connections of any size in statically pressurized, passive (i.e., no pumps) safety injection systems; and, piping and other components of any size beyond the last shutoff valve in open ended portions of systems that do not contain water during normal plant operating conditions.
 - b. Components within systems (or portions of system) other than RHR, ECC and CHR systems exempted from examination include vessels, piping, pumps, valves, and other components NPS 4 and smaller; component connections NPS 4 and smaller (including nozzles, socket fittings, and other connections) in vessels, piping, pumps, valves, and other components of any size; vessels, piping, pumps, valves, other components, and components connections of any size in systems or portions of systems that operate (when the system function is required) at a pressure equal to or less than 275 psig and at a temperature equal

to or less than 200 degrees F; and, piping and other components of any size beyond the last shutoff valve in open ended portions of systems that do not contain water during normal plant operating conditions.

4. Examination Category C-A, C-B, C-D, C-F-1, C-F-2 and C-G components shall be selected for examination in accordance with Table IWC-2500-1.
5. ASME Class 2 equivalent piping longitudinal welds, Examination Category C-F-1, Item Numbers C5.12 and C5.22 and Examination Category C-F-2, Item Numbers C5.52 and C5.62, will not be tabulated in Appendix B. Longitudinal welds will be examined in accordance with Code Case N-524, Paragraph (a) (b) and (b)(2).
6. Examination requirements for ASME Class 2 equivalent integrally welded attachments, Examination Category C-C shall be in accordance with Code Case N-509. See Section 7.2.D.
7. Examination requirements for ASME Class 2 equivalent component supports, Examination Category F-A, shall be in accordance with Code Case N-491. See Section 7.2.E.
8. Examination coverage of ASME Class 2 equivalent welds will be in accordance with Code Case N-460 unless impractical due to original plant design. In this case the examination will be processed in accordance with Section 7.8.

C. ASME CLASS 3 EQUIVALENT COMPONENTS SUBJECT TO EXAMINATION (IWD)

1. ASME Class 3 equivalent systems subject to examination are: Auxiliary Feedwater System; Component Cooling System; Essential Raw Cooling Water System; Fuel Pool Cooling and Cleaning System; and, High Pressure Fire Protection System. The specific components subject to examination are identified on drawings listed in Appendix F, ISI Drawings List.
2. The rules of IWD-1220 have been used to establish exemption criteria for components.
 - a. Items exempt from examination include integral attachments of supports and restraints to components that are NPS 4 and smaller within the system boundaries of Examination Categories D-A, D-B, and D-C of Table IWB-2500-1 except for the Auxiliary Feedwater System.
 - b. For the Auxiliary Feedwater System, the following components or parts of components are exempt: piping NPS 1 and smaller; and, vessels, pumps, and valves and their connections in piping NPS 1 and smaller. Reference RFR 1-ISI-2.
 - c. Integral attachments of supports and restraints to components exceeding NPS 4 in systems (or portions of systems) whose function is not required in support of reactor residual heat removal, containment heat removal, and emergency core cooling; and the components operate at a pressure of 275 psig or less and at a temperature of 200 degrees F or less have be exempted.
3. Examination requirements for ASME Class 3 equivalent integrally welded attachments, Examination Categories D-A, D-B and D-C shall be in accordance with Code Case N-509. See Section 7.2.D.
4. Examination requirements for ASME Class 3 equivalent component supports shall be in accordance with Code Case N-491. See Section 7.2.E.

D. ASME CLASS 1, 2, and 3 EQUIVALENT INTEGRALLY WELDED ATTACHMENTS

Selection and examination of ASME Class 1, 2 and 3 equivalent integrally welded attachments shall be in accordance with Code Case N-509. Examination Categories B-H and B-K-1; C-C; and, D-A, D-B and D-C of the 1989 Edition of ASME Section XI become Examination Categories B-K, C-C and D-A respectively for Code Case N-509.

These component and piping integrally welded support attachments are within the systems identified in Sections 7.2.A.1, 7.2.B.1 and 7.2.C.1. The specific integrally welded support attachments subject to examination are identified on drawings listed in Appendix F, ISI Drawing List.

1. The number of integrally welded support attachments within each system, the number selected for examination during the interval and the number selected for examination by period are provided in Appendix C.

Note: In addition to the scheduled integrally welded support attachment examinations, examination is required whenever component support member deformation (e.g., broken, bent, or pulled out parts) is identified during operation, refueling, maintenance, examination, inservice inspection, or testing.

2. The rules of IWB-1220, IWC-1220, and IWD-1220 have been used to exempt components from examination and establish the numbers in Appendix C, except for ASME Class 3 equivalent Auxiliary Feedwater system. See Section 7.2.A, 7.2.B and 7.2.C for exemption criteria.

E. COMPONENT SUPPORTS SUBJECT TO EXAMINATION (IWF, CODE CASE N-491)

Selection and examination of ASME Class 1, 2, and 3 equivalent components supports shall be in accordance with Code Case N-491. Item numbers shall be categorized in accordance with footnote 1 of Table N-491-2500-1.

These component and piping supports are within the systems identified in Sections 7.2.A.1, 7.2.B.1 and 7.2.C.1. The specific supports subject to examination are identified on ISI Drawings listed in Appendix F.

1. Component and piping supports shall be examined in accordance with Code Case N-491, Table -2500-1. Component supports to be examined shall be the supports of those components that are required to be examined by Sections 7.2.A, 7.2.B, and 7.2.D by volumetric, surface, or visual (VT-1 or VT-3) examination methods. Piping supports to be examined shall be the supports of piping not exempted by Sections 7.2.A.3, 7.2.B.3 and 7.2.C.2.
2. Component and piping supports exempt from NDE examinations are those connected to components and items exempted by Sections 7.2.A.3, 7.2.B.3 and 7.2.C.2 and portions of supports that are inaccessible by being encased in concrete, buried underground, or encapsulated by guard pipe.
3. Snubber examinations are not a part of this program. Snubbers will be tested and examined in accordance with SSP-8.08, Snubber Program. The remainder of the snubber support from and including the snubber pin attachment up to but not including the building structure will be examined in accordance with this program.

4. The number of supports subject to an examination sample plan, the number selected for examination during the interval and the number selected for examination by period are provided in Appendix D.
5. Support examination boundaries shall be in accordance with N-491-1300 (IWF-1300). Examination and acceptance of support settings shall be in accordance with the detailed support drawing. Acceptance range for support settings shall be calculated in accordance with Inspection Services Organization Programs Manuals (refer to IEP series).
6. Component supports that have been adjusted in accordance with N-491-3000, repaired, or replaced shall be examined prior to return of the system to service per the applicable examinations listed in Table -2500-1. For systems that operate above 200 degrees F during normal operation, an additional preservice examination shall be performed on the affected component supports during or following the subsequent system heat-up and cool-down cycle unless determined unnecessary by evaluation. This examination shall be performed during operation or at the next refueling outage.
7. Component supports that must be subjected to corrective measures in accordance with N-491-3000, that support shall be scheduled and reexamined during the next inspection period as described in Section 7.9.D.

7.3 NOTIFICATION OF INDICATION (NOI)

Whenever an unacceptable inservice examination indication is discovered, an NOI shall be initiated. In those cases where an outside contractor is furnishing inservice examination services in accordance with TVAs QA Program, the contractor will normally initiate the NOI form under the supervision of an ISI/NDE Representative. When an outside contractor is furnishing turn-key examination services, the contractor shall notify the ISI/NDE Representative of unacceptable indications in accordance with their QA Program.

A. The NOI Form (Appendix H) is to be used to:

1. Notify Plant Management of unacceptable indications found during the performance of scheduled inservice examinations that will require evaluation and a disposition in accordance with plant procedures.
2. Notify ISI/NDE Representative of indications that exceed the acceptance criteria of Article 3000 of the ASME Section XI Code and/or -3000 of Code Case N-491 and/or Code Case N-509 and that the indications have been documented on an examination report form contained within the NDE procedure used for examination.
3. Provide ISO and ISI/NDE Representative with a method to track examination reports that require reexamination or a documented disposition for closure.
4. As a final product, with the disposition provided in accordance with plant procedures added to Part II of the form; to provide the ISI/NDE Representative a method of determining if additional examinations are required in accordance with the Code.

B. Functionally an NOI form shall be initiated and processed as follows:

1. Part I of an NOI Form will be initiated by the NDE examiner when an indication exceeds the acceptance criteria of the NDE procedure being used to perform a scheduled inservice examination. The examiner will sign and date the NOI Form. The Field Supervisor, in the case of contracted examination, will review the information in Part I and sign and date the NOI Form as approving the information. The ISI/NDE Representative will review for clarity and completeness, sign, and date the NOI Form.
2. After completion of Part I, ISI/NDE Representative shall submit the NOI Form and a copy of the examination report to plant management as a notification that an indication requiring evaluation has been found and that a potential exists for additional examinations to be performed per ASME Section XI.
3. The owner of the Repair and Replacement Program shall be responsible for evaluating and providing a disposition for the indication in accordance with plant procedures. The disposition shall be documented in detail on an administrative control program document (PER, WR/WO, etc.) if required by the Corrective Action Program, (Reference Section 7.9).
4. The owner of the Repair and Replacement Program shall include the final disposition on the NOI Form in Part II, sign, date and return the NOI Form, to the ISI/NDE Representative. Reference to any PERs or WR/WOs, etc., shall be included.
5. The ISI/NDE Representative shall determine additional examination requirements.
6. The ISI/NDE Representative shall check "yes" or "no" for additional examinations, and he shall close the NOI Form in Part III by reexamination in the case where work was performed as a part of the disposition, or by verification of the disposition if no physical work was required to remove or modify the indication.
7. The NOI form shall be filed with the examination report. The reexamination report, if applicable, shall reference the NOI number. The NOI form shall reference the reexamination report number.

7.4 ADDITIONAL EXAMINATIONS FOR ASME CODE CLASS 1, 2, AND 3

After an NOI has been dispositioned and returned to the ISI/NDE Representative, the NOI shall be evaluated to determine if additional examinations shall be required in accordance with ASME Section XI IWB-2430 and IWC-2430 for components, -2430 of Code Case N-491 for component supports, or paragraph 1.3 of Code Case N-509 for integrally welded attachments. If it is determined that additional examinations are required, these examinations shall be performed during the same outage as the initial examinations. A sample is defined as those items (welds, areas, or parts) as described or intended in a particular examination category and item number and within the same system. The initial sample is the sample scheduled for examination at a particular outage for Section XI credit.

A. Additional Examinations for Class 1 Equivalent Components (IWB)

Additional examinations for Class 1 equivalent components (IWB) shall be in accordance with the requirements of IWB-2430. The additional examination samples are defined as those items (welds, areas, or parts) in a particular examination category and item number and within the same system. The initial sample is the sample scheduled for examination at a particular outage for ASME Section XI credit.

1. Examinations of the initial sample that reveal indications exceeding the acceptance standards of table IWB-3410-1 shall be extended to include additional examinations in the same outage except for volumetric and surface examinations where IWB-3112(b) is applicable. (Such as, flaws detected by volumetric or surface examinations that meet the nondestructive examination standards of NB-2500 and NB-5300, as documented in QA records, shall be acceptable).
2. The first additional examination sample shall include items included in the inspection item listing scheduled for the current and subsequent period. If examinations for that item are not scheduled in the subsequent period, the next most immediate period containing scheduled examinations of that item shall be examined as the additional sample.
3. If the first additional examinations of Section 7.4.A.2 reveal indications exceeding the acceptance standards of Table IWB-3410-1, except where IWB-3112(b) is applicable, further additional examinations shall be performed during the outage. The second additional examination sample shall include all the items of similar design, size and function within the system under examination

B. Additional Examinations for Class 2 Equivalent Components (IWC)

Additional examinations for Class 2 equivalent components (IWC) shall be selected per IWC-2430. The additional examination samples are defined as those items (welds, areas, or parts) in a particular examination category and item number and within the same system. The initial sample is the sample scheduled for examination at a particular outage for ASME Section XI credit.

1. Examinations of the initial sample that reveal indications exceeding the acceptance standards of table IWC-3410-1 shall be extended to include additional examinations in the same outage except for volumetric and surface examinations where IWC-3112(b) is applicable. (Such as, flaws detected by volumetric or surface examinations that meet the nondestructive examination standards of NC-2500 and NC-5300, as documented in QA records, shall be acceptable).
2. The first additional sample shall include approximately the same number of items examined in the initial sample. The items selected should be those available in the interval sample that have the longest service time from its previous inservice examination.
3. If the first additional examinations of Section 7.4.B.2 detect indications exceeding the allowable standards of IWC-3000, further additional examinations shall be performed during the outage. The second additional sample shall include the remaining number of items of the interval sample not examined in the initial or first additional sample. If no items remain in the interval sample, a notification of the first additional sample results shall be provided, in accordance with Section 7.4.E, to evaluate the indications for further action, if needed.

C. Additional Examinations for Class 1, 2, and 3 Equivalent Integrally Welded Attachments

Additional examinations for Class 1, 2, and 3 Equivalent Integrally Welded Attachments shall be in accordance with paragraph 1.3 of Code Case N-509.

1. Class 1, 2, and 3 equivalent integrally welded attachment additional examination requirements of IWB-2430 for Class 1 (See Section 7.4.A), IWC-2430 for Class 2 and Class 3 (See Section 7.4.B) shall be applied to integrally welded attachments whose examinations reveal flaws or relevant conditions that exceed the acceptance standards of IWB-3000, IWC-3000 and IWD-3000 respectively.

2. When integrally welded attachments are examined as a result of identified component support deformation and the results of these examinations exceed the acceptance standards of IWB-3000, IWC-3000 and IWD-3000, additional examinations shall be performed when determined necessary based on an evaluation. This evaluation shall be documented in accordance with The Notification of Additional Sample Results Form in Appendix I.

D. Additional Examinations for Component Supports (IWF)

Additional examinations for component supports (IWF) shall be in accordance with -2430 of Code Case N-491.

1. If component supports of the initial sample are subjected to corrective measures in accordance with -3000 of Code Case N-491, the component supports immediately adjacent to those for which corrective action is required shall be examined. Also, the examinations shall be extended to include a first additional sample that includes supports within the system, equal in number and of the same type and function as those scheduled for examination during the period.
2. When the additional examinations of Section 7.4.D.1 require corrective measures in accordance with -3000 of Code Case N-491, a second additional sample of the remaining component supports within the system of the same type and function as in Section 7.4.D.1 shall be examined.
3. When the additional examinations of Section 7.4.D.2 require corrective measures in accordance with -3000 of Code Case N-491, examinations shall be extended to include a third additional sample of all nonexempt supports potentially subject to the same failure modes that required corrective measures in Sections 7.4.D.1 and 7.4.D.2. These additional examinations shall include nonexempt component supports in other systems when support failures requiring corrective measures indicate non-system related failure modes. At the request of the ISI/NDE Representative a determination of failure mode applicability and selection of a third additional sample shall be made. The Notification of Additional Sample Results Form in Appendix I shall be used to make this request.
4. When the additional examinations of Section 7.4.D.3 require corrective measures in accordance with -3000 of Code Case N-491, examination shall be extended to those exempt component supports that could be affected by the same observed failure modes and could affect nonexempt components. At the request of the ISI/NDE Representative, a determination of failure mode applicability and selection of a fourth additional sample shall be made of all component supports on exempt components which could affect nonexempt components. The Notification of Additional Sample Results Form in Appendix I shall be used to make this request.

E. Completion of Additional Examinations

After completion of the additional examinations, ASME Section XI Code requirements for additional examinations are complete. If the final sample examinations reveal indications which exceed the acceptance standards of Article 3000, the indications shall be evaluated for further action, if needed, within this and /or other systems.

Included in the notification should be a summary of the indications found, number of examinations, number of indications in each sample, type of examinations performed, examination category, item number, copies of the NOIs, and any other pertinent information. This notification shall be made using the Notification of Additional Sample Results Form in Appendix I.

7.5 CONFIGURATION CHANGES

When modifications are made to existing piping or components, drawings shall be reviewed and revised by ISI/NDE Representative to identify the piping configuration, welds, and components that shall be included in or deleted from the ASME Section XI ISI/NDE Program.

If variations in configuration are discovered or modifications (including additions and deletions), replacements, or repairs are made during the service life of the unit, these changes shall be marked on field corrected copies of the appropriate drawings. These field corrected copies shall be used in the performance of examinations. Copies of these field corrected drawings shall be logged using a Field Corrected Drawing Transmittal Form in Appendix J. A file and number log of the corrected drawings and forms shall be maintained by ISI/NDE Representative. ISI/NDE Representative shall be responsible for reviewing the proposed change, revising the drawings as necessary, and issuing the revised drawing prior to the next refueling outage. The scan plan shall be revised as necessary to reflect these field corrected drawings (interim working drawings) and any preservice and/or inservice examinations performed due to these variations in configuration.

7.6 CALIBRATION STANDARDS

Calibration blocks shall be used for ultrasonic examination. The blocks shall be fabricated in accordance with ASME Section V and ASME Section XI. ISO shall maintain as-built calibration standard drawings and calibration block certified material test reports (CMTRs). The calibration blocks shall be stored at the plant site and maintained by ISI/NDE personnel.

7.7 RECORDS AND REPORTS

- A. Records and reports shall be prepared in accordance with SSP-6.10.
- B. Records for ASME Code Class 1, 2, and 3 (Equivalent)

The following records and drawings are QA Records generated by this instruction and shall be retained in accordance with SSP-2.09:

- 1. Site Final Report
- 2. ASME Section XI ISI Drawings

In process records shall be controlled with SSP-2.09.

- C. Augmented Examination Reports

For specific details on Augmented Examinations records, reports and reporting see Section 7.11 and Appendix L.

7.8 REQUESTS FOR RELIEF (RFR)

When TVA has determined that Code requirements or examinations are impractical, TVA shall submit written requests for relief (RFR) to the NRC with information to support the need for relief and any proposed alternate examinations. The impractical Code requirements or relief situation shall be identified as a part of the examination schedule tables (Appendix A-D) in this program and references to a particular RFR shall be included. Requests for relief shall be prepared in accordance with SSP-6.10.

Requests for relief are included in Appendix K.

7.9 CORRECTIVE ACTION PROGRAM AND SUCCESSIVE EXAMINATIONS

Any corrective action required as a result of ISI examinations shall be handled in accordance with SSP-3.04.

A. Successive Examinations - Class 1 Equivalent Components

Areas containing flaw indications or relevant conditions evaluated in accordance with IWB-3132.4 or IWB 3142.4 and SSP-3.4 that qualify for continued service shall be reexamined during the next three inspection periods listed in the inspection schedules. If the re-examinations reveal that the flaw indications remain essentially unchanged for three successive inspections, then the component examination schedule may revert to the original schedule. Components requiring successive examinations shall be scheduled for examination in accordance with Appendix G.

B. Successive Examinations - Class 2 Equivalent Components

Components with flaw indications evaluated in accordance with IWC-3122.4 or IWC-3132.3 and SSP-3.4 that qualify for continued service shall be reexamined during the next inspection period listed in the inspection schedule. If the reexamination reveals that the flaw indications remain essentially unchanged, the component examination schedule may revert to the original schedule. Components requiring successive examinations shall be scheduled for examination in accordance with Appendix G.

C. Successive Examinations for Class 1, 2, and 3 Equivalent Integrally Welded Attachments

Successive examinations for Class 1, 2, and 3 equivalent integrally welded attachments shall be in accordance with paragraph 1.3 of Code Case N-509.

1. Class 1, 2 and 3 equivalent integrally welded attachment successive examination requirements of IWB-2420 for Class 1 (see Section 7.9.A) or IWC-2420 for Class 2 and 3 (see Section 7.9.B), shall be applied to integrally welded attachments whose examinations reveal flaws or relevant conditions that exceed the acceptance standards of IWB-3000, IWC-3000, and IWD-3000, respectively.
2. When integrally welded attachments are examined as a result of identified component support deformation and the results of these examinations exceed the acceptance standards of IWB-3000, IWC-3000 and IWD-3000, successive examinations shall be performed when determined necessary based on an evaluation. This evaluation may be documented in accordance with the Notification of Additional Sample Results Form in Appendix I.

D. Successive Examinations for Component Supports (IWF)

Successive Examinations for component supports (IWF) shall be in accordance with -2420 of Code Case N-491.

1. When a component support must be subjected to corrective measures in accordance with -3000 of Code Case N-491 that support shall be reexamined during the next inspection period listed in the inspection schedule. Components requiring successive examinations shall be scheduled for examination in accordance with Appendix G.

2. When additional corrective measures are not required during the next inspection period as a result of the examinations required by Section 7.9.C.1, the inspection schedule may revert to the original schedule.

7.10 SCAN PLAN

A computerized data base system, PRISIM, will be utilized for status and Section XI credit of completed ISI examinations and those augmented examinations which have been integrated with the ASME Section XI ISI/NDE Program. The PRISIM data base is utilized to provide a scan plan. A scan plan is the primary scheduling document listing components requiring examination during a specific refueling outage. A scan plan may also be utilized to provide a listing of components to be examined for nonoutage activities. Responsibilities for preparing, maintaining, and approving the PRISIM data base and scan plans shall be in accordance with SSP-6.10.

During implementation phases (usually outage periods), it may become necessary to revise the scan plan. Scan plan revisions can be initiated by ISI/NDE Representative, ISO, or by other personnel involved with the implementation of the scan plan. All changes shall be coordinated with an ISI/NDE Representative and, as needed, with the appropriate plant planning and scheduling personnel for facilitating the use of supporting craft personnel. Work/change control during outage periods shall be in accordance with SSP-7.02. Revisions to the scan plan shall be controlled in the same manner as the original (see SSP 6.10). However, interim working copies may be hand written to allow examinations to be performed before a formal revision is issued. The approving individuals shall initial and date revisions on the scan plan.

When inservice examinations are performed as a result of instructions other than this program (e.g., maintenance instructions, work plans, etc.), copies of the examination data sheet shall be submitted to ISI/NDE by the performing organization for assignment of a report number and incorporation into the scan plan.

7.11 AUGMENTED EXAMINATIONS

Augmented examinations are performed in addition to ASME Section XI code requirements. The augmented examinations may be required by the NRC or be self-imposed by TVA. Typical sources include generic letters, IE bulletins, technical specifications, vendor recommendations, and industry experience. SSP-6.10 provides requirements for requesting augmented examinations. Appendix L provides a description and schedule for augmented examinations currently integrated with the ISI Program.

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ISI PLANNING/SCHEDULING TABLE FOR ASME CLASS 1 COMPONENTS

EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
B-A		Pressure Retaining Welds in Reactor Vessel									
B-A	B1.10	RV Shell Welds	Volumetric								
	B1.11	RV Shell Welds Circumferential	UT	4	100%	4	Deferral Permissible	0	0	4	ISI-0427-C
	B1.12	RV Shell Welds Longitudinal	Volumetric	None	100%	N/A	Deferral Permissible	N/A	N/A	N/A	N/A
B-A	B1.20	RV Head Welds	Volumetric								
	B1.21	RV Head Welds (circumferential)	UT	2 (closure head and lower head)	100% of accessible length	2	Deferral Permissible	0	0	2	CHM-2549-C ISI-0427-C
	B1.22	RV Head Welds (meridional)	UT	6 Meridional welds	100% of accessible length	6	Deferral Permissible	0	0	6	ISI-0427-C
B-A	B1.30	RV Shell-to-Flange Weld	UT	1	100%	1	Partial Deferral	0	0	1	ISI-0427-C
B-A	B1.40	RV Head-to-Flange Weld	MT & UT	1	100%	1	Partial Deferral	1/2 of weld	1/2 of weld	0	CHM-2549-C
B-A	B1.50	RV Beltline Repair Areas > 10% Wall	Volumetric								
	B1.51	RV Repair Welds Beltline Region	Volumetric	None	All	N/A	Deferral Permissible	N/A	N/A	N/A	N/A
B-B		Pressure Retaining Welds in Vessels Other than Reactor Vessels									
B-B	B2.10	Pressurizer Shell-to-Head Welds	Volumetric								

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	B2.11	Pressurizer Circ. Shell-to-Head Welds	UT	2	100%	2	Deferral Not Permissible	0	1	1	CHM-2570-C
	B2.12	Pressurizer Shell to Head Intersecting Longitudinal Welds	UT	2 / 1 FOOT (one longitudinal weld intersecting each circumferential weld)	1 Foot of each	2 / 1 Foot	Deferral Not Permissible	0	1 Foot of long. weld intersecting B2.11 circ. weld selected for examination	1 Foot of long. weld intersecting B2.11 circ. weld selected for examination	CHM-2570-C
B-B	B2.20	Pressurizer Head Welds	Volumetric								
	B2.21	Pressurizer Head Welds Circumferential	Volumetric	None	One weld per head	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
	B2.22	Pressurizer Head Welds Meridional	Volumetric	None	One weld per head	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-B	B2.30	Steam Generator Primary Side Head Welds	Volumetric								
	B2.31	Steam Generator Primary Side Head Welds Circumferential	Volumetric	None	One weld per head	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
	B2.32	Steam Generator Primary Side Head Welds Meridional	Volumetric	None	One weld per head	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-B	B2.40	SG Tubesheet-to-Head Weld	UT	4 SG/ 1 weld each	100%	4	Deferral Not Permissible	2	1	1	CHM-2660-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
B-B	B2.50	Heat Exchangers (Primary Side), Head Welds	Volumetric								
	B2.51	Heat Exchangers (Primary Side), Head Welds, Circumferential	Volumetric	None	One weld per head	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
	B2.52	Heat Exchangers (Primary Side), Head Welds, Meridional	Volumetric	None	One weld per head	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-B	B2.60	Heat Exchangers (Primary Side) - Shell, Tubesheet-to-Head Welds	Volumetric	None	One weld per group, 100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-B	B2.70	Heat Exchangers (Primary Side) - Shell, Longitudinal Welds	Volumetric	None	One foot of one weld per group, at each end of shell	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-B	B2.80	Heat Exchangers (Primary Side) - Shell Tubesheet-to-Shell Welds	Volumetric	None	One weld per group at each end	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-D		Full Penetration Welds of Nozzles in Vessels									
B-D	B3.90	RV Noz-to-Ves Welds	UT	8	100%	8	Deferral Permissible	4	0	4	ISI-0427-C
B-D	B3.100	RV Noz Inside Radius Section	UT	8	100%	8	Deferral Not Permissible	4	0	4	ISI-0427-C

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B-D	B3.110	Pressurizer Noz-Ves Welds	UT	6	100%	6	Deferral Not Permissible	0	4	2	CHM-2570-C
B-D	B3.120	Pressurizer Noz Inside Radius Section	UT	6	100%	6	Deferral Not Permissible	0	4	2	CHM-2570-C
B-D	B3.130	SG Primary Side Noz-Ves Welds	Volumetric	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-D	B3.140	SG Primary Side Nozzle Inside Radius Section	UT	8	100%	8	Deferral Not Permissible	4	2	2	CHM-2660-C
B-D	B3.150	Heat Exchanger Primary Side Nozzle-to-Vessel Welds	Volumetric	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-D	B3.160	Heat Exchanger Primary Side Noz Inside Radius Section	Volumetric	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-E		Pressure Retaining Partial Penetration Welds in Vessels									
B-E	B4.10	RV Partial Penetration Welds	Visual								
	B4.11	RV Partial Penetration Welded Nozzles	VT-2	1 Vent	25%	1	Deferral Permissible	0	0	1	CHM-2684-C
	B4.12	RV Control Rod Drive Noz	VT-2	78	25%	20	Deferral Permissible	0	0	20	CHM-2684-C
	B4.13	RV Instrumentation Noz	VT-2	58	25%	15	Deferral Permissible	0	0	15	ISI-0427-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
B-E	B4.20	Pressurizer Heater Penetration Welds	VT-2	78	100%	78	Deferral Permissible	0	0	78	CHM-2570-C
B-F		Pressure Retaining Dissimilar Metal Welds									
B-F	B5.10	RV Noz-to-SE Dissimilar Metal Butt Welds NPS 4 or Larger	PT & UT	8	100%	8	Defferal Not Permissible	4	0	4	ISI-0427-C
B-F	B5.20	RV Noz-to-SE Dissimilar Metal Butt Welds Less Than NPS 4	Surface	None	100%	N/A	Defferal Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.30	RV Noz-to-SE Dissimilar Metal Socket Welds	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.40	Pressurizer Noz-to-SE Dissimilar Metal Butt Welds NPS 4 or larger	PT & UT	6	100%	6	Deferral Not Permissible	0	2	4	CHM-2570-C
B-F	B5.50	Pressurizer Noz-to-SE Dissimilar Metal Butt Welds Less Than NPS 4	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.60	Pressurizer Noz-to-SE Dissimilar Metal Socket Welds	Surface	None	100%	N/A	*Deferral Not Permissible	N/A	N/A	N/A	N/A

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B-F	B5.70	SG Noz-to-SE Dissimilar Metal Butt Welds NPS 4 or Larger	PT & UT	8	100%	8	Deferral Not Permissible	4	2	2	CHM-2547-C
B-F	B5.80	Steam Generator Noz-to-SE Dissimilar Metal Butt Welds Less Than NPS 4	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.90	Steam Generator Noz-to-SE Dissimilar Metal Socket Welds	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.100	Heat Exchanger Noz-to-SE Dissimilar Metal Welds NPS 4 or Larger	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.110	Heat Exchanger Noz-to-SE Dissimilar Metal Butt Welds Less Than NPS 4	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.120	Heat Exchanger Noz-to-SE Dissimilar Metal Socket Welds	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.130	Piping Dissimilar Metal Butt Welds NPS 4 or Larger	Surface	None (included with Exam Category B-J per Inquiry XI-1-92-13)	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A

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B-F	B5.140	Piping Dissimilar Metal Butt Welds Less Than NPS 4	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-F	B5.150	Piping Dissimilar Metal Socket Welds	Surface	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1		Pressure Retaining Bolting, Greater Than 2" In Diameter									
B-G-1	B6.10	RV Closure Head Nuts	MT	54	100%	54	Deferral Not Permissible	18	18	18	ISI-0427-C
B-G-1	B6.20	RV Closure Studs, in place	Volumetric	Included in Item No. B6.30	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.30	RV Closure Studs, when removed	MT & UT	54	100%	54	Deferral Not Permissible	18	18	18	ISI-0427-C
B-G-1	B6.40	RV Threads in Flange	UT	54	100%	54	Deferral Not Permissible	18	18	18	ISI-0427-C
B-G-1	B6.50	RV Closure Washers, Bushings Note: RV does not have bushings, only washers	VT-1	54	100%	54	Deferral Not Permissible	18	18	18	ISI-0427-C
B-G-1	B6.60	Pressurizer Bolts and Studs	Volumetric	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A

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B-G-1	B6.70	Pressurizer Flange Surface, When Connection Disassembled	Visual	N/A	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.80	Pressurizer Nuts, Bushings, and Washers	Visual	N/A	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.90	SG Bolts and Studs	Volumetric	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.100	SG Flange Surface, When Connection Disassembled	Visual	N/A	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.110	SG Nuts, Bushings, and Washers	Visual	N/A	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.120	Heat Exchanger Bolts and Studs	Volumetric	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.130	Heat Exchanger Flange Surfaces When Connection Disassembled	Visual	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.140	Heat Exchanger Nuts, Bushings, and Washers	Visual	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.150	Piping Bolts and Studs	Volumetric	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A

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B-G-1	B6.160	Piping Flange Surface, When Connection Disassembled	Visual	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.170	Piping Nuts, Bushings, and Washers	Visual	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.180	RCP Bolts & Studs	UT	4 Pumps/24 bolts per pump	Pump(s) selected for examination under B-L-2	24 bolts/pump	Deferral Not Permissible	only if B-L-2 examination is performed	only if B-L-2 examination is performed	only if B-L-2 examination is performed	ISI-0447-C
B-G-1	B6.190	RCP Flange Surface, when connection is disassembled	VT-1	4 Pumps/ 24 bolts per pump	Pump(s) selected for examination under B-L-2	24 bolts/pump	Deferral Not Permissible	only if B-L-2 examination is performed	only if B-L-2 examination is performed	only if B-L-2 examination is performed	ISI-0447-C
B-G-1	B6.200	RCP Nuts, Bushings, and Washers	Visual	None	Pump(s) selected for examination under B-L-2	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.210	Valve Bolts & Studs	Visual	None	Pump(s) selected for examination under B-L-2	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.220	Valve Flange Surface, when connection is disassembled	Visual	None	Valves selected for examination under B-M-2	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-1	B6.230	Valve Nuts, Bushings, and Washers	Visual	None	Valves selected for examination under B-M-2	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-2		Pressure Retaining Bolting, 2" and Less in Diameter									

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B-G-2	B7.10	Reactor Vessel Bolts, Studs, and Nuts	Visual	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-2	B7.20	Pressurizer Bolts, Studs, and Nuts	VT-1	One Manway/16 Bolts	100%	One Manway/16 Bolts	Deferral Not Permissible	0	One Manway	0	CHM-2570-C
B-G-2	B7.30	SG Bolts, Studs, and Nuts	VT-1	4 Gen/2 Manways/16 Bolts each	100%	4 Gen/2 Manways/16 Bolts each	Deferral Not Permissible	4 Manways	2 Manways	2 Manways	CHM-2660-C
B-G-2	B7.40	Heat Exchanger Bolts, Studs, and Nuts	Visual	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-G-2	B7.50	Piping Bolts, Studs, and Nuts	Surface								
	B7.50	CVCS	VT-1	4 Connections	100%	4	Deferral Not Permissible	1	1	2	ISI-0050-C
	B7.50	RCS	VT-1	5 Connections	100%	5	Deferral Not Permissible	1	2	2	ISI-0365-C
	B7.50	RHRS	VT-1	None	100%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
	B7.50	SIS	VT-1	4 Connections	100%	4	Deferral Not Permissible	1	1	2	CHM-2758-C
B-G-2	B7.60	Pumps Bolts, Studs, and Nuts	VT-1	4 Pumps/2 Sets/1 set 12 bolts, 1 set 8 bolts	Pump(s) selected for examination under B-L-2	2 Sets/Pump	Deferral Not Permissible	Only if B-L-2 examination is performed	Only if B-L-2 examination is performed	Only if B-L-2 examination is performed	ISI-0447-C

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B-G-2	B7.70	Valves Bolts, Studs, and Nuts <= 2" dia		Reference Appendix E for list of valves subject to Examination Category B-G-2.							
	B7.70	CVCS	VT-1	NONE	Valve(s) selected for examination under B-M-2	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
	B7.70	RCS	VT-1	1 Group/ 3 Valves	Valve(s) selected for examination under B-M-2	At least 1 valve per group	Deferral Not Permissible	Only if B-M-2 examination is performed	Only if B-M-2 examination is performed	Only if B-M-2 examination is performed	ISI-0365-C
	B7.70	RHRS	VT-1	4 Groups/ 8 Valves	Valve(s) selected for examination under B-M-2	At least 1 valve per group	Deferral Not Permissible	Only if B-M-2 examination is performed	Only if B-M-2 examination is performed	Only if B-M-2 examination is performed	CHM-2636-C
	B7.70	SIS	VT-1	3 Groups/ 18 Valves	Valve(s) selected for examination under B-M-2	At least 1 valve per group	Deferral Not Permissible	Only if B-M-2 examination is performed	Only if B-M-2 examination is performed	Only if B-M-2 examination is performed	CHM-2758-C
B-G-2	B7.80	CRD Housing Bolts, Studs, and Nuts	Visual	None	Bolts, studs, and nuts in CRD housing when disassembled	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-J		Pressure Retaining Welds In Piping									
B-J	B9.10	Piping Welds NPS 4 or Larger	Surface and Volumetric								
B-J	B9.11	Piping Circumferential Welds NPS 4 or Larger	Surface and Volumetric								

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	B9.11	RCS Main	PT & UT	45	25%	11	Deferral Not Permissible	3	4	4	CHM-2547-C
	B9.11	RCS	PT & UT	66	25%	17	Deferral Not Permissible	6	6	5	ISI-0365-C
	B9.11	RV Auxiliary Head Adapter Welds	PT & UT	12	25%	3	Deferral Not Permissible	0	0	3	CHM-2684-C CHM-2685-C
	B9.11	RHRS	PT & UT	60	25%	15	Deferral Not Permissible	5	5	5	CHM-2636-C
	B9.11	SIS	PT & UT	102	25%	26	Deferral Not Permissible	9	8	9	CHM-2758-C
B-J	B9.12	Piping Longitudinal Welds NPS 4 or Larger	Code Case N-524	N/A	N/A	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-J	B9.20	Piping Welds Less Than NPS 4	Surface								
B-J	B9.21	Piping Circ. Welds Less than NPS 4	Surface								
	B9.21	CVCS	PT	97	25%	24	Deferral Not Permissible	8	8	8	ISI-0005-C ISI-0050-C
	B9.21	RCS	PT	10	25%	2	Deferral Not Permissible	1	0	1	CHM-2547-C
	B9.21	MAIN LOOP RCS	PT	4	25%	1	Deferral Not Permissible	0	1	0	ISI-0365-C

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	B9.21	SIS	PT	50	25%	13	Deferral Not Permissible	4	4	5	CHM-2758-C
B-J	B9.22	Piping Longitudinal Welds Less than NPS 4	Surface	None	25%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
B-J	B9.30	Branch Pipe Connection Welds	Surface and Volumetric								
B-J	B9.31	Branch Pipe Connection Welds NPS 4 or larger	Surface and Volumetric								
	B9.31	CVCS	PT & UT	None	25%	N/A	Deferral Not Permissible	N/A	N/A	N/A	N/A
	B9.31	RCS	PT & UT	2	25%	0	Deferral Not Permissible	0	0	0	ISI-0365-C
	B9.31	RCS Main	PT & UT	1	25%	1	Deferral Not Permissible	0	1	0	CHM-2547-C
	B9.31	RHRS	PT & UT	3	25%	1	Deferral Not Permissible	0	0	1	CHM-2636-C
	B9.31	SIS	PT & UT	5	25%	1	Deferral Not Permissible	1	0	0	CHM-2758-C
B-J	B9.32	Branch Pipe Connection Welds Less than NPS 4	Surface								

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	B9.32	CVCS	PT	3	25%	1	Deferral Not Permissible	1	0	0	ISI-0005-C
	B9.32	RCS	PT	3	25%	1	Deferral Not Permissible	0	1	0	ISI-0365-C
	B9.32	RCS Main	PT	21	25%	5	Deferral Not Permissible	1	2	2	CHM-2547-C
	B9.32	RHRS	PT	2	25%	1	Deferral Not Permissible	0	0	1	CHM-2636-C
	B9.32	SIS	PT	13	25%	3	Deferral Not Permissible	1	1	1	CHM-2758-C
B-J	B9.40	Piping Socket Welds	Surface								
	B9.40	CVCS	PT	122	25%	31	Deferral Not Permissible	10	11	10	ISI-0050-C
	B9.40	RCS	PT	54	25%	14	Deferral Not Permissible	5	4	5	ISI-0365-C
	B9.40	MAIN LOOP RCS	PT	20	25%	5	Deferral Not Permissible	2	1	2	CHM-2547-C
	B9.40	RHRS	PT	18	25%	4	Deferral Not Permissible	1	2	1	CHM-2636-C
	B9.40	SIS	PT	253	25%	63	Deferral Not Permissible	21	21	21	CHM-2758-C
B-L-1		Pressure Retaining Welds in Pump Casings									

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B-L-1	B12.10	Reactor Coolant Pump Casing Welds	VT-1/VT-2/VT-3	4	Code Case N-481	1 (VT-1), 4 (VT-2) and VT-3 if disassembled for maintenance	Deferral Permissible	VT-3 if disassembled	VT-3 if disassembled	1 (VT-1)/4 (VT-2)/VT-3 if disassembled	ISI-0048-C
B-L-2		Pump Casings									
B-L-2	B12.20	Reactor Coolant Pump Casing Internal Surfaces	VT-3	4	At least one pump in each group of pumps if disassembled for maintenance.	At least one pump if disassembled (examination required only once in interval)	Deferral Permissible	Only if pump disassembled	Only if pump disassembled	Only if pump disassembled	ISI-0048-C
B-M-1		Pressure Retaining Welds in Valve Bodies									
B-M-1	B12.30	Valves (less than NPS 4) Body Welds	Surface	None	At least one valve in each group of valves	N/A	Deferral Permissible	N/A	N/A	N/A	N/A
B-M-1	B12.40	Valves (NPS 4 or larger) Body Welds	Volumetric	None	At least one valve in each group of valves	N/A	Defferal Permissible	N/A	N/A	N/A	N/A
B-M-2		Valve Bodies									
B-M-2	B12.50	Valves (greater than NPS 4) Body Internal Surfaces Visual		Reference Appendix E for list of valves subject to Examination Category B-M-2.							

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	B12.50	CVCS	VT-3	None	At least one valve in each group of valves when disassembled for maintenance.	At least one valve per group	Defferral Permissible	N/A	N/A	N/A	N/A
	B12.50	RCS	VT-3	One Group	At least one valve in each group of valves when disassembled for maintenance.	At least one valve per group	Deferral Permissible	Only if disassembled	Only if disassembled	Only if disassembled	ISI-0365-C
	B12.50	RHRS	VT-3	Four Groups	At least one valve in each group of valves when disassembled for maintenance.	At least one valve per group	Deferral Permissible	Only if disassembled	Only if disassembled	Only if disassembled	CHM-2636-C
	B12.50	SIS	VT-3	Three Groups	At least one valve in each group of valves when disassembled for maintenance.	At least one valve per group	Deferral Permissible	Only if disassembled	Only if disassembled	Only if disassembled	CMH-2758-C
B-N-1		Interior of Reactor Vessel									
B-N-1	B13.10	RV Interior Accessible areas	VT-3	1	At First Refueling Outage and then at 3 year Intervals	1	Deferral Not Permissible	1	1	1	ISI-0427-C

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B-N-2		Integrally Welded Core Support Structure and Interior Attachments to Reactor Vessels									
B-N-2	B13.50	RV Interior Attachments Within Beltline Region	Visual	None	Accessible welds	N/A	Deferral Permissible	N/A	N/A	N/A	N/A
B-N-2	B13.60	RV Interior Attachments Beyond Beltline Region	VT-3	6	Accessible welds	6	Deferral Permissible	0	0	6	ISI-0427-C
B-N-3		Removable Core Support Structures									
B-N-3	B13.70	RV Core Support Structure Accessible Surfaces	VT-3	1	Accessible surfaces	1	Deferral Permissible	0	0	1	
B-O		Pressure Retaining Welds in Control Rod Housing									
B-O	B14.10	RV Welds in CRD Housings	UT or PT	78 CRD Housings/ 20 Peripheral Housings	10% of Peripheral Housings during last period	2	Deferral Permissible	0	0	2	CHM-2684-C

APPENDIX B
ISI PLANNING/SCHEDULE TABLE FOR ASME CLASS 2 COMPONENTS

EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
C-A		Pressure Retaining Welds in Pressure Vessels									
C-A	C1.10	Pressure Retaining Shell Circumferential Welds	Volumetric								
	C1.10	Steam Generator	UT	4 SG/ 3 welds per SG	All in one vessel at structural discontinuity	3	Each Inspection Interval	0	0	3	CHM-2660-C
	C1.10	Residual Heat Removal Heat Exchanger	UT	2 RHRHX/ 1 weld per RHRHX	All in one vessel at structural discontinuity	1	Each Inspection Interval	0	1	0	CHM-2662-C
	C1.10	Containment Spray Heat Exchanger	UT	2 CSHX/ 1 weld per CSHX	All in one vessel at structural discontinuity	1	Each Inspection Interval	0	1	0	ISI-0371-C
	C1.10	Seal Water Heat Exchanger	PT (Code Case N-435-1)	1	All in one vessel at structural discontinuity	1	Each Inspection Interval	1	0	0	ISI-0484-C
	C1.10	Seal Water Filter	Volumetric	None	All in one vessel at structural discontinuity	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C1.10	Seal Water Injection Filter	Volumetric	None	All in one vessel at structural discontinuity	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A

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	C1.10	Boron Injection Tank	Volumetric	None	All in one vessel at structural discontinuity	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-A	C1.20	Pressure Retaining Head Circumferential Welds	Volumetric								
	C1.20	Steam Generator	UT	4 SG/ 1 weld per SG	Head-to-Shell Weld in one vessel	1	Each Inspection Interval	0	0	1	CHM-2660-C
	C1.20	Residual Heat Removal Heat Exchanger	UT	2 RHRHX/ 1 weld per RHRHX	Head-to-Shell Welds in one vessel	1	Each Inspection Interval	0	1	0	CHM-2662-C
	C1.20	Containment Spray Heat Exchanger	UT	2 CSHX/ 1 weld per CSHX	Head-to-Shell Weld in one vessel	1	Each Inspection Interval	0	0	1	ISI-0371-C
	C1.20	Seal Water Heat Exchanger	PT (Code Case N-435-1)	1	Head-to-Shell Weld in one vessel	1	Each Inspection Interval	1	0	0	ISI-0484-C
	C1.20	Seal Water Filter	PT (Code Case N-435-1)	2	Head-to-Shell Welds in one vessel	2	Each Inspection Interval	2	0	0	ISI-0375-C
	C1.20	Seal Water Injection Filter	UT	2 SWIF / 1 weld per SWIF	Head-to-Shell Weld in one vessel	1	Each Inspection Interval	1	0	0	ISI-0375-C
	C1.20	Boron Injection Tank	UT	2	Head-to-Shell Welds, in one vessel	2	Each Inspection Interval	0	2	0	ISI-0053-C
C-A	C1.30	Tubesheet-to-shell Weld	Volumetric								

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	C1.30	Steam Generator	UT	4 SG/ 1 weld per SG	Tubesheet-to-Shell Weld in one vessel	1	Each Inspection Interval	0	0	1	CHM-2660-C
	C1.30	Residual Heat Removal Heat Exchanger	Volumetric	None	Tubesheet-to-Shell Weld in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	CHM-2662-C
	C1.30	Containment Spray Heat Exchanger	Volumetric	None	Tubesheet-to-Shell Weld in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C1.30	Seal Water Heat Exchanger	Volumetric	None	Tubesheet-to-Shell Weld in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C1.30	Seal Water Filter	Volumetric	None	Tubesheet-to-Shell Weld in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C1.30	Seal Water Injection Filter	Volumetric	None	Tubesheet-to-Shell Weld in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-B		Pressure Retaining Nozzle Welds in Vessels									
C-B	C2.10	Nozzles in vessels <= 1/2" nominal thickness									
C-B	C2.11	Nozzle-to-Shell (or Head) Weld in Vessels <= 1/2" thk	Surface								

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	C2.11	Seal Water Heat Exchanger	PT	2	All nozzles at terminal ends of piping runs in one vessel	2	Each Inspection Interval	2	0	0	ISI-0484-C
	C2.11	Seal Water Filter	PT	1	All nozzles at terminal ends of piping runs in one vessel	1	Each Inspection Interval	1	0	0	ISI-0375-C
C-B	C2.20	Nozzles without reinforcing plate in vessels > 1/2" nominal thickness									
C-B	C2.21	Nozzles without Reinforcing Plate in Vessels > 1/2" thk	Surface and Volumetric								
	C2.21	Steam Generator	MT & UT	4 SG/ 1 FW, 1 AFW and 1 MS nozzle each	All nozzles at terminal ends of piping runs in one vessel	3 (1 FW, 1 AFW and 1 MS)	Each Inspection Interval	0	0	3	CHM-2660-C
	C2.21	Residual Heat Removal Heat Exchanger	PT & UT	2 RHRHX/ 2 nozzles each	All nozzles at terminal ends of piping runs in one vessel	2	Each Inspection Interval	0	2	0	CHM-2662-C
	C2.21	Containment Spray Heat Exchanger	PT & UT	2 CSHX/ 2 nozzles each	All nozzles at terminal ends of piping runs in one vessel	2	Each Inspection Interval	2	0	0	ISI-0371-C

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	C2.21	Boron Injection Tank	PT & UT	2	All nozzles at terminal ends of piping runs in one vessel	2	Each Inspection Interval	0	2	0	ISI-0053-C
	C2.21	Seal Water Injection Filter	Surface and Volumetric	None	All nozzles at terminal ends of piping runs in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-B	C2.22	Nozzle Inside Radius Section	Volumetric								
	C2.22	Steam Generator	UT	4 SG/ 1 FW nozzle and 1 MS nozzle per SG	All nozzles > NPS 12 at terminal ends of piping runs in one vessel	2	Each Inspection Interval	0	0	2	CHM-2660-C
	C2.22	Residual Heat Removal Heat Exchanger	UT	2 RHRHX/ 2 nozzles each	All nozzles > NPS 12 at terminal ends of piping runs in one vessel	2	Each Inspection Interval	0	2	0	CHM-2662-C
	C2.22	Containment Spray Heat Exchanger	UT	2 CSHX/ 2 nozzles each	All nozzles > NPS 12 at terminal ends of piping runs in one vessel	2	Each Inspection Interval	2	0	0	ISI-0371-C

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	C2.22	Boron Injection Tank	UT	None	All nozzles > NPS 12 at terminal ends of piping runs in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-B	C2.30	Nozzles with reinforcing plate in vessels > 1/2 " nominal thickness									
C-B	C2.31	Nozzles with Reinforcing Plate in Vessels > 1/2" thk. Reinforcing Plate Welds to Vessel & Nozzle	Surface	None	All nozzles at terminal ends of piping runs in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-B	C2.32	Nozzle-to-Shell (or head) Weld when inside of Vessel is accessible	Volumetric	None	All nozzles at terminal ends of piping runs in one vessel	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-B	C2.33	Nozzle-to-Shell (or head) Weld when inside of Vessel is inaccessible	Visual	None	All nozzles at terminal ends of piping runs in one vessel	N/A	Each Inspection Period	N/A	N/A	N/A	N/A
C-D		Pressure Retaining Bolting greater Than 2 Inches in Diameter									
C-D	C4.10	Pressure Vessels Bolts & Studs > 2" dia	Volumetric								

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	C4.10	Steam Generator	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C4.10	Residual Heat Removal Heat Exchanger	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C4.10	Containment Spray Heat Exchanger	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C4.10	Seal Water Heat Exchanger	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C4.10	Seal Water Filter	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C4.10	Seal Water Injection Filter	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C4.10	Boron Injection Tank	UT	1 BIT/ One Connection	100% of one connection of one component	1 (16 bolts)	Each Inspection Interval	0	1 (16 Bolts)	0	ISI-0053-C
C-D	C4.20	Piping Bolts & Studs > 2" dia	Volumetric	None	100% of one connection of one component	None	Each Inspection Interval	N/A	N/A	N/A	N/A

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C-D	C4.30	Pumps Bolts & Studs > 2" dia	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-D	C4.40	Valves Bolts & Studs > 2" dia	Volumetric	None	100% of one connection of one component	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-F-1		Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping									
C-F-1	ALL	Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping	See Each Item Number.		7.5% of all welds not exempted by IWC-1220 spread over the Item Numbers within this Exam Category, but not including welds excluded by wall thickness.						
C-F-1	C5.10	Piping welds \geq 3/8" nominal wall thickness for piping > NPS 4									
C-F-1	C5.11	Piping Circ. Welds NPS > 4 or Larger and \geq 3/8" Nom Wall.	Surface and Volumetric								

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	C5.11	CSS	PT & UT	197	7.50%	16	Each Inspection Interval	5	5	6	ISI-0375-C ISI-0400-C ISI-0421-C
	C5.11	CVCS	PT & UT	56	7.50%	3	Each Inspection Interval	1	1	1	ISI-0375-C ISI-0421-C
	C5.11	RHRS	PT & UT	290	7.50%	22	Each Inspection Interval	8	7	7	CHM-2636-C ISI-0421-C
	C5.11	SIS	PT & UT	285	7.50%	22	Each Inspection Interval	7	8	7	CHM-2758-C ISI-0375-C
C-F-1	C5.12	Longitudinal Welds	Code Case N-524	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-F-1	C5.20	Piping Welds >1/5" nominal wall thickness for piping >= NPS 2 and <= NPS 4									
C-F-1	C5.21	Circumferential Welds	Surface and Volumetric								
	C5.21	CSS	PT & UT	1	7.50%	0	Each Inspection Interval	0	0	0	ISI-0400-C
	C5.21	CVCS	PT & UT	394	7.50%	31	Each Inspection Interval	11	10	10	ISI-0375-C
	C5.21	RHRS	PT & UT	41	7.50%	4	Each Inspection Interval	1	1	2	ISI-0375-C ISI-0421-C

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	C5.21	SIS	PT & UT	241	7.50%	19	Each Inspection Interval	6	7	6	ISI-0375-C ISI-0421-C
	C5.22	Longitudinal Welds	Code Case N-524	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-F-1	C5.30	Socket Welds	Surface								
	C5.30	CSS	PT	24	7.50%	2	Each Inspection Interval	1	0	1	ISI-0375-C
	C5.30	CVCS	PT	295	7.50%	24	Each Inspection Interval	8	8	8	ISI-0375-C
	C5.30	RHRS	PT	4	7.50%	1	Each Inspection Interval	0	1	0	ISI-0375-C
	C5.30	SIS	PT	280	7.50%	21	Each Inspection Interval	7	7	7	ISI-0375-C
C-F-1	C5.40	Pipe Branch Connections of Branch Piping \geq NPS 2									
C-F-1	C5.41	Branch Connection Welds \geq NPS 2	Surface								
	C5.41	CSS	PT	4	7.50%	1	Each Inspection Interval	0	0	1	ISI-0400-C
	C5.41	CVCS	PT	3	7.50%	1	Each Inspection Interval	1	0	0	ISI-0375-C

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	C5.41	RHRS	PT	6	7.50%	1	Each Inspection Interval	0	0	1	ISI-0375-C
	C5.41	SIS	PT	8	7.50%	1	Each Inspection Interval	0	1	0	ISI-0375-C
	C5.42	Longitudinal Welds	Code Case N-524	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-F-2		Pressure Retaining Welds in Carbon or Low Alloy Steel Piping									
C-F-2	All	Pressure retaining welds in carbon or low alloy steel piping	see each item number		7.5% of all welds not exempted by IWC-1220 spread over the item numbers within this examination category, but not including welds excluded by wall thickness						
C-F-2	C.5.50	Piping welds $\geq 3/8"$ nominal wall thickness for piping > NPS 4									

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C-F-2	C5.51	Piping circumferential welds $\geq 3/8$ " nominal wall thickness for piping $> \text{NPS } 4$	Surface and Volumetric								
	C5.51	FWS	MT & UT	286	7.50%	24	Each Inspection Interval	8	8	8	CHM-2671-C
	C5.51	MSS	MT & UT	139	7.50%	12	Each Inspection Interval	4	4	4	CHM-2669-C
C-F-2	C5.52	Longitudinal Welds	Code Case N-524	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-F-2	C5.60	Piping welds $> 1/5$ " nominal wall thickness for piping $\geq \text{NPS } 2$ and $\leq \text{NPS } 4$	Surface and Volumetric	None	7.5%	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-F-2	C5.61	Piping Circ. Welds $\geq \text{NPS } 2$ and $\leq \text{NPS } 4$	Surface and Volumetric	None	7.50%	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-F-2	C5.62	Longitudinal Welds	Code Case N-524	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-F-2	C5.70	Socket Welds	Surface	None	7.50%	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-F-2	C5.80	Pipe Branch Connection of branch piping $\geq \text{NPS } 2$									

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C-F-2	C5.81	Branch Connection Welds \geq NPS 2	Surface								
	C5.81	FWS	MT	None	7.50%	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C5.81	MSS	MT	None	7.50%	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-F-2	C5.82	Longitudinal Welds	Code Case N-524	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-G		Pressure Retaining Welds in Pumps and Valves									
C-G	C6.10	Pump Casing Welds	Surface	None	100% of welds in components in piping runs examined under C-F.	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-G	C6.20	Valve Body Welds	Surface	Reference Appendix E for list of valves subject to Examination Category C-G							
	C6.20	FWS	MT	10	100% of welds in one valve in piping runs examined under C-F.	1	Each Inspection Interval	1	0	0	ISI-0082-C

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	C6.20	MSS	MT	20	100% of welds in one valve in piping runs examined under C-F.	1	Each Inspection Interval	0	1	0	ISI-0081-C

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B-H	All	Integral Attachments for Class 1 Vessels					Reference Code Case N-509 in This Table				
B-K-1	All	Integral Attachments for Class 1 Piping, Pumps, and Valves					Reference Code Case N-509 in This Table				
C-C	All	Integral Attachments for Class 2 Vessels, Piping, Pumps, and Valves					Reference Code Case N-509 in This Table				
D-A	All	Integral Attachments for Class 3 Systems in Support of Reactor Shutdown Function					Reference Code Case N-509 in This Table				
D-B	All	Integral Attachments for Class 3 Systems in Support Emergency Core Cooling, Containment Heat Removal, Atmosphere Cleanup, and Reactor Residual Heat Removal Function					Reference Code Case N-509 in This Table				

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
D-C	All	Integral Attachments for Class 3 Systems in Support of Residual Heat Removal From Spent Fuel Storage Pool					Reference Code Case N-509 in This Table				
B-K of Code Case N-509		Integral Attachments for Class 1 Vessels, Piping, Pumps, and Valves									
B-K of Code Case N-509	B10.10	Pressure Vessels Integrally Welded Attachments	Surface or Volumetric								
	B10.10	Reactor Vessel	Volumetric	None	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	B10.10	Pressurizer Support Skirt	UT	1	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	1	Each Inspection Interval	1	0	0	CHM-2570-C
	B10.10	Pressurizer Seismic Lugs	MT	4	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	4	Each Inspection Interval	4	0	0	CHM-2570-C

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	B10.10	Steam Generator	Surface	None	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
B-K of Code Case N-509	B10.20	Piping Integrally Welded Attachments	Surface								
	B10.20	CVCS	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	B10.20	RCS	PT	2	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	2 (13 RCS supports selected for examination)	Each Inspection Interval	0	1	1	ISI-0364-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	B10.20	RCS MAIN	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	B10.20	RHRS	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	B10.20	SIS	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
B-K of Code Case N-509	B10.30	Pumps Integrally Welded Attachments	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
B-K of Code Case N-509	B10.40	Valve Integrally Welded Attachments	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-C of Code Case N-509		Integral Attachments for Class 2 Vessels, Piping, Pumps, and Valves									
C-C of Code Case N-509	C3.10	Pressure Vessels Integrally Welded Attachments	Surface								
	C3.10	Steam Generator	Surface	None	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C3.10	Residual Heat Removal Heat Exchanger (RHRHX)	PT	2 RHRHX/ 2 IA's each	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	All IA's on one RHRHX	Each Inspection Interval	0	All IA's on one RHRHX	0	CHM-2662-C
	C3.10	Containment Spray Heat Exchanger (CSHX)	PT	2 CSHX/ 1 IA each	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	All IA's on one CSHX	Each Inspection Interval	0	0	All IA's on one CSHX	ISI-0371-C

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	C3.10	Seal Water Heat Exchanger (SWHX)	PT	1 SWHX/ 2 IA's	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	All IA's on the SWHX	Each Inspection Interval	All IA's on the SWHX	0	0	ISI-0484-C
	C3.10	Seal Water Filter (SWF)	PT	1 SWF/ 4 IA's	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	All IA's on the SWF	Each Inspection Interval	All IA's on the SWF	0	0	ISI-0487-C
	C3.10	Seal Water Injection Filter (SWIF)	PT	2 SWIF/ 3 IA's each	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	All IA's on one SWIF	Each Inspection Interval	All IA's on one SWIF	0	0	ISI-0486-C
	C3.10	Boron Injection Tank (BIT)	PT	1 BIT/ 4 IA's	100% of required areas of each welded attachment on one vessel and whenever component support member deformation is identified	All IA's on the BIT	Each Inspection Interval	0	All IA's on the BIT	0	ISI-0053-C
C-C of Code Case N-509	C3.20	Piping Integrally Welded Attachments	Surface								
	C3.20	CSS	PT	8	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	2 (20 CSS supports selected for examination)	Each Inspection Interval	0	1	1	ISI-0423-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	C3.20	CVCS	PT	26	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	4 (40 CVCS supports selected for examination)	Each Inspection Interval	1	1	2	ISI-0424-C
	C3.20	FWS	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C3.20	MSS	MT	8	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	1 (1 MSS supports selected for examination)	Each Inspection Interval	1	0	0	ISI-0011-C
	C3.20	RHRS	PT	6	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	3 (28 RHRS supports selected for examination)	Each Inspection Interval	1	1	1	ISI-0020-C ISI-0107-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	C3.20	SIS	PT	31	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	5 (49 SIS supports selected for examination)	Each Inspection Interval	1	2	2	ISI-0021-C ISI-0440-C
C-C of Code Case N-509	C3.30	Pumps Integrally Welded Attachments	Surface								
	C3.30	Centrifugal Charging Pump (CCP)	PT	2 CCP / 4 IA's on each	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	All IA's on one CCP	Each Inspection Interval	All IA's on one CCP	0	0	ISI-0118-C
	C3.30	Reciprocating Charging Pump	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	ISI-0119-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	C3.30	Containment Spray Pump	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	C3.30	Residual Heat Removal Pump (RHRP)	PT	2 RHRP/ 3 IA's on each	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	All IA's on one RHRP	Each Inspection Interval	0	0	All IA's on one RHRP	ISI-0117-C
	C3.30	Safety Injection Pump	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
C-C of Code Case N-509	C3.40	Valves Integrally Welded Attachments	Surface	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the component supports selected for examination and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
D-A of Code Case N-509		Integral Attachments for Class 3 Vessels, Piping, Pumps, and Valves									
D-A of Code Case N-509	D1.10	Pressure Vessels Integrally Welded Attachments	Visual								
	D1.10	Containment Spray Heat Exchanger (CSHX)	VT-1	2 CSHX	One Heat Exchanger, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on one CSHX	Each Inspection Interval	0	0	All IA's on one CSHX	ISI-0371-C
	D1.10	Nonregenerative Letdown Heat Exchanger (NRLHX)	VT-1	1 NRLHX	All, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on the NRLHX	Each Inspection Interval	0	All IA's on the NRLHX	0	ISI-0497-C
	D1.10	Component Cooling Surge Tank (CCST)	VT-1	1 CCST	All, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on the CCST	Each Inspection Interval	0	All IA's on the CCST	0	ISI-0496-C
	D1.10	Essential Raw Cooling Water System Strainer (ERCWS)	VT-1	4 ERCWS	One Strainer, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on one ERCWS	Each Inspection Interval	All IA's on one ERCWS	0	0	ISI-0489-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	D1.10	Component Cooling Heat Exchanger (CCHX)	VT-1	3 CCHX	One Heat Exchanger, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on one CCHX	Each Inspection Interval	0	All IA's on one CCHX	0	ISI-0494-C
	D1.10	Fuel Pool Cooling and Cleaning System Spent Fuel Pit Heat Exchanger (FPCCHX)	VT-1	2 FPCCHX	One Heat Exchanger, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on one FPCCHX	Each Inspection Interval	0	0	All IA's on one FPCCHX	ISI-0372-C
	D1.10	RHR Heat Exchanger (RHRSHX)	VT-1	2 RHRSHX	One Heat Exchanger, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on one RHRSHX	Each Inspection Interval	0	0	All IA's on one RHRSHX	CHM-2662-C
	D1.10	Seal Water Heat Exchanger (SWHX)	VT-1	1 SWHX	One Heat Exchanger, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on the SWHX	Each Inspection Interval	All IA's on the SWHX	0	0	ISI-0484-C
	D1.10	High Pressure Fire Protection Strainer (HPFPS)	VT-1	2 HPFPS	One Strainer, 100% of required areas of each welded attachment and whenever component support member deformation is identified	All IA's on one HPFPS	Each Inspection Interval	All IA's on one HPFPS	0	0	ISI-0502-C

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D-A of Code Case N-509	D1.20	Piping Integrally Welded Attachments	Visual								
	D1.20	AFW	VT-1	13	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	2	Each Inspection Interval	0	1	1	ISI-0111-C
	D1.20	CCS	VT-1	52	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	6	Each Inspection Interval	2	2	2	ISI-0252-C
	D1.20	ERCW	VT-1	153	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	16	Each Inspection Interval	5	5	6	ISI-0112-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	% TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION OR DEFERRAL OF INSPECTION TO END OF INTERVAL	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	D1.20	FPCC	VT-1	10	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	1	Each Inspection Interval	1	0	0	ISI-0110-C
	D1.20	HPFP	VT-1	10	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	1	Each Inspection Interval	0	1	0	ISI-0500-C
D-A of Code Case N-509	D1.30	Pumps Integrally Welded Attachments	Visual								
	D1.30	Motor Driven Auxiliary Feedwater Pump	Visual	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A

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	D1.30	Turbine Driven Auxiliary Feedwater Pump	Visual	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	D1.30	Component Cooling System Water Pumps	Visual	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	D1.30	ERCW Pump	VT-1	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	D1.30	ERCW Screen Wash Pump	Visual	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A

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	D1.30	Fuel Pool Cooling and Cleaning System Spent Fuel Pit Pumps	VT-1	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
	D1.30	High Pressure Fire Protection Pumps	VT-1	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each Inspection Interval	N/A	N/A	N/A	N/A
D-A of Code Case N-509	D1.40	Valve Integrally Welded Attachments	VT-1	None	100% of required areas of each welded attachment on 10% of the welded attachments associated with the nonexempt component supports and whenever component support member deformation is identified	N/A	Each inspection interval	N/A	N/A	N/A	N/A

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ISI PLANNING/SCHEDULING TABLE FOR ASME CODE CLASS 1, 2, AND 3 COMPONENT SUPPORTS

EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
F-A of Code Case N-491	F1.10X (See Note)	Class 1 Piping Supports	Visual								
	Note: In accordance with footnote 1 of N-491, Table 2500-1, item numbers have been categorized to identify support types by component support function as follows: Item No. F1.10A - one directional restraints (Function A) Item No. F1.10B - multidirectional restraints (Function B) Item No. F1.10C - variable supports (Springs and Constant Force), (Function C) Item No. F1.10D - variable supports (Support Items for Snubbers), (Function D)										
		Class 1 CVC Piping Supports									
	F1.10A	CVCS	VT-3	19	25%	5	Each inspection interval	1	2	2	ISI-0026-C ISI-0063-C
	F1.10B	CVCS	VT-3	19	25%	5	Each inspection interval	2	1	2	ISI-0026-C ISI-0063-C
	F1.10C	CVCS	VT-3	2	25%	1	Each inspection interval	0	0	1	ISI-0026-C ISI-0063-C
	F1.10D	CVCS	VT-3	20	25%	5	Each inspection interval	2	2	1	ISI-0026-C ISI-0063-C
		Class 1 RCS Piping Supports									
	F1.10A	RCS	VT-3	13	25%	4	Each inspection interval	1	1	2	ISI-0364-C

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EXAM CAT.	ITEM NO.	DESCRIPTION	EXAM METHOD	NUMBER OF COMPONENTS IN ITEM NUMBER	TO BE EXAMINED DURING INTERVAL	NUMBER TO BE EXAMINED IN THE INTERVAL	FREQUENCY OF EXAMINATION	NUMBER TO BE EXAMINED IN THE FIRST PERIOD	NUMBER TO BE EXAMINED IN THE SECOND PERIOD	NUMBER TO BE EXAMINED IN THE THIRD PERIOD	ISI DRAWING NUMBER
	F1.10B	RCS	VT-3	6	25%	2	Each inspection interval	1	1	0	ISI-0364-C
	F1.10C	RCS	VT-3	10	25%	3	Each inspection interval	1	1	1	ISI-0364-C
	F1.10D	RCS	VT-3	13	25%	4	Each inspection interval	1	1	2	ISI-0364-C
		Class 1 RCS Main Piping Supports									
	F1.10A	RCS MAIN	VT-3	4	25%	1	Each inspection interval	1	0	0	ISI-0124-C ISI-0438-C
	F1.10B	RCS MAIN	VT-3	0	25%	0	Each inspection interval	0	0	0	ISI-0124-C ISI-0438-C
	F1.10C	RCS MAIN	VT-3	2	25%	1	Each inspection interval	0	0	1	ISI-0124-C ISI-0438-C
	F1.10D	RCS MAIN	VT-3	0	25%	0	Each inspection interval	0	0	0	ISI-0124-C ISI-0438-C
		Class 1 RHR Piping Supports									
	F1.10A	RHRS	VT-3	4	25%	1	Each inspection interval	1	0	0	ISI-0020-C
	F1.10B	RHRS	VT-3	6	25%	2	Each inspection interval	0	0	2	ISI-0020-C

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	F1.10C	RHRS	VT-3	3	25%	1	Each inspection interval	0	1	0	ISI-0020-C
	F1.10D	RHRS	VT-3	14	25%	4	Each inspection interval	1	1	2	ISI-0020-C
		Class 1 SIS Piping Supports									
	F1.10A	SIS	VT-3	44	25%	11	Each inspection interval	3	4	4	ISI-0021-C
	F1.10B	SIS	VT-3	62	25%	16	Each inspection interval	5	5	6	ISI-0021-C
	F1.10C	SIS	VT-3	8	25%	2	Each inspection interval	1	1	0	ISI-0021-C
	F1.10D	SIS	VT-3	47	25%	12	Each inspection interval	4	4	4	ISI-0021-C
F-A of Code Case N-491	F1.20X (See Note)	Class 2 Piping Supports	Visual								
Note: In accordance with footnote 1 of N-491, Table 2500-1, item numbers have been categorized to identify support types by component support function as follows: Item No. F1.20A - one directional restraints (Function A) Item No. F1.20B - multidirectional restraints (Function B) Item No. F1.20C - variable supports (Springs and Constant Force), (Function C) Item No. F1.20D - variable supports (Support Items for Snubbers), (Function D)											

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		Class 2 CSS Piping Supports									
	F1.20A	CSS	VT-3	67	15%	11	Each inspection interval	4	3	4	ISI-0423-C
	F1.20B	CSS	VT-3	20	15%	3	Each inspection interval	1	1	1	ISI-0423-C
	F1.20C	CSS	VT-3	7	15%	2	Each inspection interval	0	1	1	ISI-0423-C
	F1.20D	CSS	VT-3	23	15%	4	Each inspection interval	1	1	2	ISI-0423-C
		Class 2 CVC Piping Supports									
	F1.20A	CVCS	VT-3	113	15%	17	Each inspection interval	5	6	6	ISI-0424-C
	F1.20B	CVCS	VT-3	123	15%	19	Each inspection interval	6	6	7	ISI-0424-C
	F1.20C	CVCS	VT-3	11	15%	2	Each inspection interval	0	1	1	ISI-0424-C
	F1.20D	CVCS	VT-3	10	15%	2	Each inspection interval	1	1	0	ISI-0424-C
		Class 2 FWS Piping Supports									

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	F1.20A	FWS	VT-3	55	15%	9	Each inspection interval	3	3	3	ISI-0062-C
	F1.20B	FWS	VT-3	26	15%	4	Each inspection interval	1	1	2	ISI-0062-C
	F1.20C	FWS	VT-3	6	15%	1	Each inspection interval	1	0	0	ISI-0062-C
	F1.20D	FWS	VT-3	42	15%	7	Each inspection interval	2	3	2	ISI-0062-C
		Class 2 MSS Piping Supports									
	F1.20A	MSS	VT-3	19	15%	3	Each inspection interval	1	1	1	ISI-0011-C
	F1.20B	MSS	VT-3	1	15%	1	Each inspection interval	1	0	0	ISI-0011-C
	F1.20C	MSS	VT-3	12	15%	2	Each inspection interval	0	1	1	ISI-0011-C
	F1.20D	MSS	VT-3	23	15%	4	Each inspection interval	1	1	2	ISI-0011-C
		Class 2 RHRS Piping Supports									
	F1.20A	RHRS	VT-3	88	15%	14	Each inspection interval	4	5	5	ISI-0020-C ISI-0107-C

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	F1.20B	RHRS	VT-3	25	15%	4	Each inspection interval	2	1	1	ISI-0020-C ISI-0107-C
	F1.20C	RHRS	VT-3	22	15%	4	Each inspection interval	1	1	2	ISI-0020-C ISI-0107-C
	F1.20D	RHRS	VT-3	35	15%	6	Each inspection interval	2	2	2	ISI-0020-C ISI-0107-C
		Class 2 SIS Piping Supports									
	F1.20A	SIS	VT-3	130	15%	20	Each inspection interval	6	7	7	ISI-0021-C ISI-0440-C
	F1.20B	SIS	VT-3	129	15%	20	Each inspection interval	7	6	7	ISI-0021-C ISI-0440-C
	F1.20C	SIS	VT-3	19	15%	3	Each inspection interval	1	1	1	ISI-0021-C ISI-0440-C
	F1.20D	SIS	VT-3	39	15%	6	Each inspection interval	2	2	2	ISI-0021-C ISI-0440-C
F-A of Code Case N-491	F1.30X (See Note)	Class 3 Piping Supports	Visual								

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	Note: In accordance with footnote 1 of N-491, Table 2500-1, item numbers have been categorized to identify support types by component support function as follows: Item No. F1.30A - one directional restraints (Function A) Item No. F1.30B - multidirectional restraints (Function B) Item No. F1.30C - variable supports (Springs and Constant Force) (Function C) Item No. F1.30D - variable supports (Support Items for Snubbers) (Function D)										
		Class 3 AFW Piping Supports									
	F1.30A	AFW	VT-3	88	10%	9	Each inspection interval	3	3	3	ISI-0111-C
	F1.30B	AFW	VT-3	70	10%	7	Each inspection interval	2	2	3	ISI-0111-C
	F1.30C	AFW	VT-3	2	10%	1	Each inspection interval	1	0	0	ISI-0111-C
	F1.30D	AFW	VT-3	5	10%	1	Each inspection interval	0	0	1	ISI-0111-C
		Class 3 CCS Piping Supports									
	F1.30A	CCS	VT-3	418	10%	42	Each inspection interval	14	14	14	ISI-0252-C
	F1.30B	CCS	VT-3	69	10%	7	Each inspection interval	2	2	3	ISI-0252-C
	F1.30C	CCS	VT-3	20	10%	2	Each inspection interval	1	0	1	ISI-0252-C

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	F1.30D	CCS	VT-3	4	10%	1	Each inspection interval	0	1	0	ISI-0252-C
		Class 3 ERCW Piping Supports									
	F1.30A	ERCW	VT-3	425	10%	43	Each inspection interval	14	14	15	ISI-0112-C
	F1.30B	ERCW	VT-3	450	10%	45	Each inspection interval	15	15	15	ISI-0112-C
	F1.30C	ERCW	VT-3	19	10%	2	Each inspection interval	1	1	0	ISI-0112-C
	F1.30D	ERCW	VT-3	25	10%	3	Each inspection interval	1	1	1	ISI-0112-C
		Class 3 FPCC Piping Supports									
	F1.30A	FPCC	VT-3	36	10%	4	Each inspection interval	1	1	2	ISI-0110-C
	F1.30B	FPCC	VT-3	30	10%	3	Each inspection interval	1	1	1	ISI-0110-C
	F1.30C	FPCC	VT-3	11	10%	2	Each Inspection interval	0	1	1	ISI-0110-C
	F1.30D	FPCC	VT-3	6	10%	1	Each inspection interval	0	0	1	ISI-0110-C

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		Class 3 HPFP Piping Supports									
	F1.30A	HPFP	VT-3	100	10%	10	Each inspection interval	3	3	4	ISI-0500-C
	F1.30B	HPFP	VT-3	58	10%	6	Each inspection interval	2	2	2	ISI-0500-C
	F1.30C	HPFP	VT-3	0	10%	0	Each Inspection interval	0	0	0	ISI-0500-C
	F1.30D	HPFP	VT-3	0	10%	0	Each inspection interval	0	0	0	ISI-0500-C
F-A of Code Case N-491	F1.40X (See Note)	Class 1, 2, or 3 Supports Other Than Piping Supports	Visual		Supports on one or one of multiple components		Each inspection interval				
Note: In accordance with footnote 1 of N-491, Table 2500-1, item numbers have been categorized to identify support types by component support function as follows: Item No. F1.40A - one directional restraints (Function A) Item No. F1.40B - multidirectional restraints (Function B) Item No. F1.40C - variable supports (Springs and Constant Force) (Function C) Item No. F1.40D - variable supports (Support Items for Snubbers) (Function D)											
	Class 1 Equipment										
	F1.40B	Class 1 Reactor Vessel	VT-3	Reactor Vessel / 1 support	All	Reactor Vessel / 1 support	Each inspection interval	0	0	Reactor Vessel / 1 supports	ISI-0427-C

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	F1.40B	Class 1 Pressurizer	VT-3	Pressurizer / 2 supports	All	Pressurizer / 2 supports	Each inspection interval	Pressurizer / 2 supports	0	0	CHM-2570-C
	F1.40B	Class 1 Steam Generator	VT-3	4 Steam Generator / 1 support each	One Steam Generator	One Steam Generator / 1 support	Each inspection interval	0	0	One Steam Generator / 1 support	CHM-2660-C
	F1.40B	Class 1 Reactor Coolant Pump	VT-3	4 Reactor Coolant Pump / 1 support each	One Pump	One Reactor Coolant Pump / 1 support	Each inspection interval	0	One Reactor Coolant Pump / 1 support	0	ISI-0462-C
	Class 1 Valves			Note: Schedule the F1.40X exam with the corresponding system F1.10X exams.							
	F1.40A	CVCS	VT-3	1	100%	1	Each inspection interval	1	0	0	ISI-0026-C
	F1.40D	CVCS	VT-3	5	100%	5	Each inspection interval	1	2	2	ISI-0026-C
	F1.40D	RCS	VT-3	3	100%	3	Each inspection interval	1	1	1	ISI-0364-C
	Class 2 Equipment										
	F1.40B	Class 2 Steam Generator	VT-3	4 Steam Generators / 1 support each	One steam Generator	One Steam Generator support	Each inspection interval	One Steam Generator support	0	0	CHM-2660-C

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	F1.40B	Class 2 Residual Heat Removal Heat Exchanger	VT-3	2 RHRHX / 1 support on each	One Heat Exchanger	One RHRHX support	Each inspection interval	0	One RHRHX support	0	CHM-2662-C
	F1.40B	Class 2 Containment Spray Heat Exchanger	VT-3	2 CSHX / 1 support on each	One Heat Exchanger	One CSHX support	Each inspection interval	0	0	One CSHX support	ISI-0371-C
	F1.40B	Class 2 Seal Water Heat Exchanger	VT-3	Seal Water Heat Exchanger / 1 support	All	Seal Water Heat Exchanger support	Each inspection interval	0	Seal Water Heat Exchanger support	0	ISI-0484-C
	F1.40B	Class 2 Seal Water Filter	VT-3	Seal Water Filter / 1 support	All	Seal Water Filter support	Each inspection interval	Seal Water Filter support	0	0	ISI-0487-C
	F1.40B	Class 2 Seal Water Injection Filter	VT-3	2 SWIF / 1 support each	One Filter	One SWIF support	Each inspection interval	One SWIF support	0	0	ISI-0486-C
	F1.40B	Class 2 Boron Injection Tank (BIT)	VT-3	BIT / 1 support	All	BIT support	Each inspection interval	0	0	BIT support	ISI-0053-C
	F1.40B	Class 2 Residual Heat Removal Pump	VT-3	2 RHRP / 1 support each	One Pump	One RHRP support	Each inspection interval	0	One RHRP support	0	ISI-0117-C
	F1.40B	Class 2 Centrifugal Charging Pump	VT-3	2 CCP / 1 support each	One Pump	One CCP support	Each inspection interval	One CCP support	0	0	ISI-0118-C
	F1.40B	Class 2 Safety Injection Pump	VT-3	2 SIP / 1 support each	One Pump	One SIP support	Each inspection interval	0	One SIP support	0	ISI-0112-C

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	F1.40B	Class 2 Containment Spray Pump	VT-3	2 CSP/ 1 support each	One Pump	One CSP support	Each inspection interval	0	0	One CSP support	ISI-0483-C
	F1.40B	Class 2 Reciprocating Charging Pump	VT-3	1 PDP/ 1 support	One Pump	One PDP support	Each inspection interval	0	0	One PDP support	ISI-0119-C
	Class 2 Valves			Note: Schedule the F1.40X exam with the corresponding system F1.20X exams.							
	F1.40A	CSS	VT-3	2	100%	2	Each inspection interval	1	0	1	ISI-0423-C
	F1.40C	CSS	VT-3	1	100%	1	Each inspection interval	0	1	0	ISI-0423-C
	F1.40D	CVCS	VT-3	3	100%	3	Each inspection interval	1	1	1	ISI-0424-C
	F1.40D	FWS	VT-3	2	100%	2	Each inspection interval	0	1	1	ISI-0062-C
	F1.40D	SIS	VT-3	2	100%	2	Each inspection interval	1	0	1	ISI-0440-C
	Class 3 Equipment										
	F1.40B	Class 3 Motor Driven Auxiliary Feedwater Pump (MDAFP)	VT-3	2 MDAFWP/ 1 support each	One pump	One MDAFWP support	Each inspection interval	0	0	One MDAFWP support	ISI-0492-C

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	F1.40B	Class 3 Turbine Driven Auxiliary Feedwater Pump (TDAFP)	VT-3	Pump / 1 support	All	TDAFP support	Each inspection interval	0	0	TDAFP supports	ISI-0493-C
	F1.40B	Class 3 Component Cooling Surge Tank (CCST)	VT-3	Tank / 1 support	All	CCST support	Each inspection interval	0	CCST support	0	ISI-0496-C
	F1.40B	Class 3 CCS Heat Exchanger (CCHX)	VT-3	2 CCHX / 1 support each	One heat exchanger	One CCHX support	Each inspection interval	0	One CCHX support	0	ISI-0494-C
	F1.40B	Class 3 CCS Water Pumps (CCSWP)	VT-3	3 CCSWP / 1 support each	One pump	One CCSWP support	Each inspection interval	0	One CCSWP support	0	ISI-0495-C
	F1.40B	Class 3 Nonregenerative Letdown Heat Exchanger (NRLHX)	VT-3	1 NRLHX / 1 support	All	NRLHX support	Each inspection interval	0	NRLHX support	0	ISI-0497-C
	F1.40B	Class 3 RHR Heat Exchanger Secondary Side (RHRHSHX)	VT-3	2 RHRHSHX / 1 support each	One heat exchanger	One RHRHSHX support	Each inspection interval	0	0	One RHRHSHX support	CHM-2662-C
	F1.40B	Class 3 Containment Spray Heat Exchanger (CSHX)	VT-3	2 CSHX / 1 support each	One Heat Exchanger	One CSHX support	Each inspection interval	0	0	One CSHX support	ISI-0371-C

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	F1.40B	Class 3 ERCW Pump (ERCWP)	VT-3	8 ERCWP / 1 support each	One Pump	One ERCWP support	Each inspection interval	0	0	One ERCWP support	ISI-0488-C
	F1.40B	Class 3 ERCW Screen Wash Pump (ERCWSWP)	VT-3	4 ERCWSWP / 1 support each	One Pump	One ERCWSWP support	Each inspection interval	0	One ERCWSWP support	0	ISI-0490-C
	F1.40B	Class 3 ERCW Strainer (ERCWS)	VT-3	2 ERCWS / 1 support each	One Strainer	One ERCWS support	Each inspection interval	One ERCWS support	0	0	ISI-0489-C
	F1.40B	Class 3 FPCC Spent Fuel Pit Heat Exchanger (FPCCHX)	VT-3	2 FPCCHX / 1 support each	One heat exchanger	One FPCCHX support	Each inspection interval	One FPCCHX support	0	0	ISI-0372-C
	F1.40B	Class 3 FPCC Spent Fuel Pit Pumps (FPCCP)	VT-3	3 FPCCP / 1 support each	One Pump	One FPCCP support	Each inspection interval	0	One FPCCP support	0	ISI-0485-C
	F1.40B	Class 3 HPFP Pumps (HPFPP)	VT-3	4 HPFPP / 1 support each	One Pump	One HPFPP support	Each inspection interval	One HPFPP support	0	0	ISI-0501-C
	F1.40B	Class 3 HPFP Strainers (HPFPS)	VT-3	2 HPFPS / 1 support each	One Strainer	One HPFPS support	Each inspection interval	One HPFPS support	0	0	ISI-0502-C
	Class 3 Valves			Note: Schedule the F1.40X exam with the corresponding system F1.30X exams.							
	F1.40A	AFW	VT-3	1	100%	1	Each inspection interval	1	0	0	ISI-0111-C
	F1.40D	AFW	VT-3	2	100%	2	Each inspection interval	0	1	1	ISI-0111-C

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APPENDIX E
CLASS I VALVES SUBJECT TO VALVE BODY EXAMINATION PER EXAMINATION CATEGORY B-M-2

Notes:

1. Examination is limited to at least one valve in each group of valves per interval.
2. Examination of valve pressure retaining bolting should also be performed per Examination Category B-G-2 during the B-M-2 examination.

SYS	VALVE	ISI DRAWING	SIZE (in)	TYPE	FUNCTION	GROUP	VENDOR	VENDOR DRAWING
SIS	FCV-63-067	CHM-2758-C-10	10	GATE	ISOLATION	1	WESTINGHOUSE	115E013
SIS	FCV-63-080	CHM-2758-C-09	10	GATE	ISOLATION	1	WESTINGHOUSE	115E013
SIS	FCV-63-098	CHM-2758-C-08	10	GATE	ISOLATION	1	WESTINGHOUSE	115E013
SIS	FCV-63-118	CHM-2758-C-07	10	GATE	ISOLATION	1	WESTINGHOUSE	115E013
SIS	63-558	CHM-2758-C-10	6	CKV	PSIV	2	WESTINGHOUSE	934D185
SIS	63-559	CHM-2758-C-08	6	CKV	PSIV	2	WESTINGHOUSE	934D185
SIS	63-632	CHM-2758-C-08	6	CKV	PSIV	2	WESTINGHOUSE	934D185
SIS	63-633	CHM-2758-C-07	6	CKV	PSIV	2	WESTINGHOUSE	934D185
SIS	63-634	CHM-2758-C-09	6	CKV	PSIV	2	WESTINGHOUSE	934D185
SIS	63-635	CHM-2758-C-10	6	CKV	PSIV	2	WESTINGHOUSE	934D185
SIS	63-560	CHM-2758-C-07	10	CKV	PSIV	3	WESTINGHOUSE	934D187
SIS	63-561	CHM-2758-C-08	10	CKV	PSIV	3	WESTINGHOUSE	934D187
SIS	63-562	CHM-2758-C-09	10	CKV	PSIV	3	WESTINGHOUSE	934D187
SIS	63-563	CHM-2758-C-10	10	CKV	PSIV	3	WESTINGHOUSE	934D187
SIS	63-622	CHM-2758-C-07	10	CKV	PSIV	3	WESTINGHOUSE	934D187
SIS	63-623	CHM-2758-C-08	10	CKV	PSIV	3	WESTINGHOUSE	934D187
SIS	63-624	CHM-2758-C-09	10	CKV	PSIV	3	WESTINGHOUSE	934D187
SIS	63-625	CHM-2758-C-10	10	CKV	PSIV	3	WESTINGHOUSE	934D187
RHR	63-640	CHM-2636-C-07	8	CKV	PSIV	4	WESTINGHOUSE	934D186
RHR	63-643	CHM-2636-C-08	8	CKV	PSIV	4	WESTINGHOUSE	934D186
RHR	63-641	CHM-2636-C-07	6	CKV	PSIV	5	WESTINGHOUSE	934D185
RHR	63-644	CHM-2636-C-08	6	CKV	PSIV	5	WESTINGHOUSE	934D185
RCS	68-563	ISI-0365-C-01	6	RELIEF	RELIEF VALVE	6	CROSBY	DSCA56964
RCS	68-564	ISI-0365-C-01	6	RELIEF	RELIEF VALVE	6	CROSBY	DSCA56964
RCS	68-565	ISI-0365-C-01	6	RELIEF	RELIEF VALVE	6	CROSBY	DSCA56964
RHR	FCV-74-01	CHM-2636-C-01	14	GATE	PSIV	7	WESTINGHOUSE	115E622
RHR	FCV-74-02	CHM-2636-C-01	14	GATE	PSIV	7	WESTINGHOUSE	115E622
RHR	FCV-74-08	CHM-2636-C-01	10	GATE	PSIV	8	WESTINGHOUSE	1167E79
RHR	FCV-74-09	CHM-2636-C-01	10	GATE	PSIV	8	WESTINGHOUSE	1167E79

APPENDIX E

CLASS 2 VALVES WITH PRESSURE RETAINING WELDS SUBJECT TO EXAMINATION CATEGORY C-G

Note: Only welds in one valve in piping runs examined under Examination Category C-F are required to be examined each interval.

SYS	CLASS	VALVE NUMBER	ISI LOCATION DRAWING	WELD NUMBER	ISI VALVE DRAWING	SIZE (in)	TYPE	MAUNFACTURER	VENDOR DRAWING
MSS	2	1-512	CHM-2669-C-04	MSVS-512	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-513	CHM-2669-C-04	MSVS-513	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-514	CHM-2669-C-04	MSVS-514	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-515	CHM-2669-C-04	MSVS-515	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-516	CHM-2669-C-04	MSVS-516	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-517	CHM-2669-C-03	MSVS-517	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-518	CHM-2669-C-03	MSVS-518	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-519	CHM-2669-C-03	MSVS-519	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-520	CHM-2669-C-03	MSVS-520	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-521	CHM-2669-C-03	MSVS-521	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-522	CHM-2669-C-01	MSVS-522	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-523	CHM-2669-C-01	MSVS-523	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-524	CHM-2669-C-01	MSVS-524	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-525	CHM-2669-C-01	MSVS-525	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-526	CHM-2669-C-01	MSVS-526	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-527	CHM-2669-C-02	MSVS-527	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-528	CHM-2669-C-02	MSVS-528	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-529	CHM-2669-C-02	MSVS-529	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-530	CHM-2669-C-02	MSVS-530	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
MSS	2	1-531	CHM-2669-C-02	MSVS-531	ISI-0081-C-01	6	SRV	DRESSER	3NC-040
FWS	2	3-638	CHM-2671-C-06	FWVS-638	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-644	CHM-2671-C-06	FWVS-644	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-645	CHM-2671-C-06	FWVS-645	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-652	CHM-2671-C-05	FWVS-652	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-655	CHM-2671-C-05	FWVS-655	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-656	CHM-2671-C-05	FWVS-656	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-669	CHM-2671-C-07	FWVS-669	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-670	CHM-2671-C-07	FWVS-670	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-678	CHM-2671-C-08	FWVS-678	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001
FWS	2	3-679	CHM-2671-C-08	FWVS-679	ISI-0082-C-01	6	CKV	BORG WARNER	455KAB1-001

APPENDIX F

Page 1 of 2

ISI DRAWING LISTLIST OF APPLICABLE FLOW DIAGRAMS

<u>Drawing Series</u>	<u>System Description</u>
1-47W801	Main & Reheat Steam & Steam Generator Blowdown (TVA Class B)
1-47W803	Feedwater & Auxiliary Feedwater (TVA Class B & C)
1-47W809	Chemical & Volume Control (TVA Class A & B)
1-47W810	Residual Heat Removal (TVA Class A & B)
1-47W811	Safety Injection (TVA Class A & B)
1-47W812	Containment Spray (TVA Class B)
1-47W813	Reactor Coolant (TVA Class A)
1-47W819	Primary Water (exempt)
1-47W830	Waste Disposal (exempt)
1-47W832	Raw Water - Yard (TVA Class C)
1-47W845	Essential Raw Cooling Water (TVA Class B & C)
1-47W850	Fire Protection & Raw Service Water (TVA Class C)
1-47W851	Floor & Equipment Drains (exempt)
1-47W855	Fuel Pool Cleaning & Cooling (TVA Class C)
1-47W856	Demineralized Water & Cask Decon (exempt)
1-47W859	Component Cooling (TVA Class B & C)
1-47W862	Steam Generator Layup Water Treatment (exempt)
1-47W865	Heating & Air Conditioning (exempt)

ISI DRAWINGS LIST

<u>Drawing Series</u>	<u>Series Description</u>
CHM-2547-C	Reactor Coolant Main Loop Piping Weld Locations
CHM-2549-C	Reactor Vessel Closure
CHM-2570-C	Pressurizer
CHM-2636-C	Residual Heat Removal Piping Weld Locations
CHM-2660-C	Steam Generator
CHM-2662-C	Residual Heat Removal Heat Exchanger Channel Welds
CHM-2669-C	Mainsteam Piping Weld Locations
CHM-2671-C	Feedwater Piping Weld Locations
CHM-2684-C	Upperhead Penetrations
CHM-2685-C	Auxiliary Head Adapter
CHM-2758-C	Safety Injection System Piping
ISI-0005-C	Chemical and Volume Control Piping Weld Locations
ISI-0011-C	Mainsteam Piping Support Locations
ISI-0012-C	Control Rod Drive Housing
ISI-0020-C	Residual Heat Removal Piping Support Locations
ISI-0021-C	Safety Injection Piping Support Locations
ISI-0026-C	Chemical and Volume Control Piping Support Locations
ISI-0048-C	Reactor Coolant Pump Case Weld Locations
ISI-0050-C	CVCS Seal Water Injection Piping Weld Locations

APPENDIX F

Page 2 of 2

ISI DRAWINGS LIST

<u>Drawing Series</u>	<u>Series Description</u>
ISI-0053-C	Boron Injection Tank Weld and Support Locations
ISI-0062-C	Feedwater Piping Support Locations
ISI-0063-C	CVCS Seal Water Injection Piping Support Locations
ISI-0081-C	Mainsteam Relief Valve
ISI-0082-C	Feedwater Check Valve
ISI-0107-C	Residual Heat Removal Piping Support Locations (HPSI portion)
ISI-0110-C	Fuel Pool Cooling and Cleaning Piping Support Locations
ISI-0111-C	Auxiliary Feedwater Support Locations
ISI-0112-C	Essential Raw Cooling Water Piping Support Locations
ISI-0117-C	Residual Heat Removal Pump Supports
ISI-0118-C	Centrifugal Charging Pump Supports
ISI-0119-C	Reciprocating Charging Pump Supports
ISI-0120-C	Safety Injection Pump Supports
ISI-0124-C	Pressurizer Surge Line Piping Supports
ISI-0252-C	Component Cooling Piping Support Locations
ISI-0364-C	Reactor Coolant Piping Weld Locations
ISI-0365-C	Reactor Coolant Piping Support Locations
ISI-0371-C	Containment Spray Heat Exchanger Support Details
ISI-0372-C	Spent Fuel Pit Heat Exchanger Support Locations
ISI-0375-C	High Pressure Safety Injection Piping Weld Locations
ISI-0400-C	Containment Spray Piping Weld Locations
ISI-0421-C	High Pressure Safety Injection Excluded Piping Weld Locations
ISI-0423-C	Containment Spray Piping Support Locations
ISI-0424-C	Chemical and Volume Control Piping Support Locations (HPSI portion)
ISI-0427-C	Reactor Vessel
ISI-0438-C	Reactor Coolant Main Loop Piping Support Locations
ISI-0439-C	Piping Support Examination Boundaries
ISI-0440-C	Safety Injection Piping Support Locations (HPSI portion)
ISI-0446-C	Reactor Coolant Pump Supports
ISI-0447-C	Reactor Coolant Pump Main Flange Bolt Circle
ISI-0483-C	Containment Spray Pump Support Locations
ISI-0484-C	Seal Water Injection Heat Exchanger Support Locations
ISI-0485-C	Spent Fuel Pool Pumps Support Locations
ISI-0486-C	Seal Water Injection Filter Support Locations
ISI-0487-C	Seal Water Filter Support Locations
ISI-0488-C	ERCW Pumps Support Locations
ISI-0489-C	ERCW Strainer Support Locations
ISI-0490-C	ERCW Screen Wash Pumps Support Locations
ISI-0492-C	Motor Driven Auxiliary Feedwater Pumps Support Locations
ISI-0493-C	Turbine Driven Auxiliary Feedwater Pump Support Locations
ISI-0494-C	Component Cooling Heat Exchanger Support Locations
ISI-0495-C	Component Cooling Water Pumps Support Locations
ISI-0496-C	Component Cooling Surge Tank Support Locations
ISI-0497-C	Non-Regenerative Letdown Heat Exchanger Support Locations
ISI-0500-C	High Pressure Fire Protection Piping Support Locations
ISI-0501-C	HPFP Pump Support Locations
ISI-0502-C	HPFP Strainer Support Locations

APPENDIX G

Page 1 of 1

SCHEDULE OF SUCCESSIVE EXAMINATIONS

COMPONENT IDENTIFIER	PROGRAM REFERENCE SECTION	EXAM METHOD	EXAM CATEGORY	CYCLE FLAW INITIALLY DETECTED	FIRST SUCCESSIVE PERIOD	SECOND SUCCESSIVE PERIOD	THIRD SUCCESSIVE PERIOD	ISI DRAWING

NOTE: THIS TABLE WILL NOT BE USED UNTIL SUCCESSIVE EXAMINATIONS ARE REQUIRED AS DESCRIBED IN SECTION 7.9 OF THE PROGRAM.

APPENDIX H

Page 1 of 1

NOTIFICATION OF INDICATION (NOI) FORM

PART I - FINDINGS

NOI No. _____ Plant/Unit WBN/1 ISI Dwg./Sh. No. _____

Examination Report No. _____ Component ID _____

Description of Indication (Sketch/Photograph if Required for Clarification): _____

Signature of Examiner/Certification Level: _____

Signature of Field Supervisor (Contractor): _____

Signature of ISI/NDE Representative: _____

PART II - DISPOSITION

Disposition Prepared/Recorded By: _____ Date: _____

PART III - ADDITIONAL EXAMINATIONS

Additional Sample Required: ____ Yes ____ No
(Attach list of items in additional sample, if yes.)_____
ISI/NDE Representative Date

VERIFICATION OF CLOSURE

Verification of Completed Corrective Action Required by Disposition

Reexamination Report Number, if Applicable: _____

Comments: _____

Signature of ISI/NDE Representative: _____ Date: _____

APPENDIX I

Page 1 of 1

NOTIFICATION OF ADDITIONAL SAMPLE RESULTS

TO: _____
FROM: _____Transmittal Number: _____
(Year)-(Sequential No)

Plant/Unit WBN/U1 _____

System _____

Component ID _____

Code Category _____ Exam Method(s) _____

Initial Sample _____ NOI Number _____

1st Additional Sample _____ NOI Number _____

2nd Additional Sample _____ NOI Number _____
(Supports Only)Drawing Number _____ Prepared By _____
ISI/NDE Representative DateEvaluation/Recommendation
(attach additional information if needed)

Additional Components to be Examined

Evaluation/Recommendation

Prepared By _____

DateCoordinated with ISI/NDE
Representative __________
Date

APPENDIX J

Page 1 of 1

FIELD CORRECTED DRAWING(S) TRANSMITTAL

TO: ISI/NDE
REPRESENTATIVETransmittal Number: _____ - _____
(Year)-(Sequential #)Plant/Unit: WBN/U1

Outage or Date: _____

The ASME Section XI ISI/NDE Program, 1-TRI-0-10, drawing(s) listed below have been field marked with variations in configuration which were discovered during the course of inservice or preservice examinations. Please revise the controlled copy of this/these drawing(s) prior to the next refueling outage.

- | | |
|----------|-----------|
| 1. _____ | 7. _____ |
| 2. _____ | 3. _____ |
| 3. _____ | 9. _____ |
| 4. _____ | 10. _____ |
| 5. _____ | 11. _____ |
| 6. _____ | 12. _____ |

Signature of Examiner _____
DateSignature of Field Supervisor _____
Date

Drawings have been revised as necessary to reflect the appropriate changes.

Signature of ISI/NDE Representative Date

APPENDIX K

Page 1 of 3

REQUESTS FOR RELIEF

<u>RFER No.</u>	<u>TITLE/BRIEF DESCRIPTION</u>
1-ISI-1	Auxiliary Feedwater System Piping Integral Attachments and Supports Request to use a NPS 1 and smaller exemption for examination of AFW IAs and supports.

APPENDIX K

Page 2 of 3

REQUEST FOR RELIEF 1-ISI-1

Components:

Auxiliary Feedwater System Piping

Code Class:

ASME Code Class 3

Section XI Edition:

1989 Edition

Examination Category and Item Number:

Examination Category D-A, Item Numbers D1.10, D1.20, D1.30, and D1.40 from Code Case N-509

Code Requirement:

Paragraph 1.1(a) of Code Case N-509 and Subsubarticle IWD-1220 of the 1989 Edition of ASME Section XI provides exemption criteria for Class 3 integral attachments of supports except for PWR Auxiliary Feedwater Systems. The exemption is as follows:

IWD-1220.1 Integral attachments of supports and restraints to components that are NPS 4 and smaller with the system boundaries of Examination Categories D-A, D-B, and D-C of Table IWD-2500-1 shall be exempt from the visual examination VT-3, except for PWR Auxiliary Feedwater Systems.

IWD-1220.2 Integral attachments of supports and restraints to components exceeding NPS 4 may be exempted from the visual examination VT-3 of Table IWD-2500-1 provided:

- (a) the components are located in systems (or portions of systems) whose function is not required in support of reactor residual heat removal, containment heat removal, and emergency core cooling; and
- (b) the components operate at a pressure of 275 psig or less and at a temperature of 200 degrees F or less.

Code Requirement From Which Relief Is Requested:

Relief is requested from Paragraph 1.1(a) of Code Case N-509 and Subsubarticle IWD-1220 of ASME Section XI for PWR Auxiliary Feedwater Systems. Paragraph 1.1(a) references IWD-1220 for application of exemption criteria for Class 3 integrally welded attachments. IWD-1220.1 of the 1989 Edition specifically excludes PWR Auxiliary Feedwater Systems from the NPS 4 and smaller exemption, and therefore, does not provide any exemption criteria for this system. | CN-1

APPENDIX K

Page 3 of 3

REQUEST FOR RELIEF I-ISI-I
(continued)Basis for Relief:

Beginning with the 1991 Addenda, ASME Section XI incorporated the exemption requirements for the Auxiliary Feedwater System. The exemption includes piping NPS 1 and smaller and vessels, pumps, and valves and their connections in piping NPS 1 and smaller. Use of this exemption criteria for the Class 3 portion of Auxiliary Feedwater System is more stringent than the ASME Section XI exemption criteria for the Class 2 portion of the system (IWC-1222, 1989 Edition). In addition ASME Section XI exemption criteria for Class 1 components provides a NPS 1 exemption (IWB-1220, 1989 Edition).

Alternate Examinations:

The exemption criteria of Paragraph IWD-1220(b) in the 1991 Addenda of ASME Section XI will be utilized for the Auxiliary Feedwater System. Paragraph IWD-1220(b) of the 1991 Addenda states the following components or parts of components are exempted from the VT-3 visual examination requirements of IWD-2500:

“for Auxiliary Feedwater Systems in pressurized water reactor plants:

- (1) piping NPS 1 and smaller
- (2) vessels, pumps, and valves and their connections in piping NPS 1 and smaller”

Justification For The Granting Of Relief:

The 1989 Edition of the ASME Section XI does not provide exemption criteria for the Auxiliary Feedwater System. The 1991 Addenda provides a NPS 1 exemption for the Auxiliary Feedwater System. Utilization of this exemption criteria provides criteria more stringent than the criteria utilized for Class 2 components and similar to the criteria utilized for Class 1 components which includes a NPS 1 exemption. Therefore, by utilizing the exemption criteria contained in the 1991 Addenda of ASME Section XI for the Auxiliary Feedwater System, an acceptable level of quality and safety will be achieved and public health and safety will not be endangered.

Implementation Schedule:

This Request for Relief is applicable to WBN's first inspection interval.

APPENDIX L

Page 1 of 2

AUGMENTED EXAMINATIONS

The following augmented examinations have been requested to be included in the ISI Program by the responsible organization listed. These examinations are listed below. A detail description follows this page.

1.0 REACTOR COOLANT PUMP FLYWHEEL

Examination Requirements and Schedule:

- A. Perform an in-place ultrasonic examination of the areas of higher stress concentration at the bore and keyway at approximately 3-year intervals during the refueling or maintenance outages.
- B. Perform a surface examination of all exposed surfaces and complete ultrasonic examination at approximately 10-year intervals during the plant shutdown coinciding with the ISI schedule as required by Section XI.

APPENDIX L

Page 2 of 2

AUGMENTED EXAMINATIONS

1.0 Reactor Coolant Pump Flywheel

Responsible Organization: Mech/Nuc Engineering

The augmented examination requirements of the reactor coolant pump flywheel are included in Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1; (1) an in-place ultrasonic examination of the areas of higher stress concentration at the bore and keyway at approximately 3-year intervals during the refueling or maintenance shutdown coinciding with the ISI schedule as required by Section XI of the ASME Code, and (2) a surface examination of all exposed surfaces (exposed areas are considered as those areas accessible for examination without having to remove the flywheel from the housing) and complete ultrasonic examination at approximately 10-year intervals during the plant shutdown coinciding with the ISI schedule as required by Section XI of the ASME Code. This examination is performed in accordance with WBN Technical Surveillance Requirement 3.4.5.1.

This augmented examination does not require a special report unless the examination reveals a flaw. The acceptance criteria should conform to the recommendations of Regulatory Position C.2.F in Regulatory Guide 1.14. If the examination and evaluation indicate an increase in flaw size or growth rate greater than predicted for the service life of the flywheel, the results of the examination and evaluation should be submitted to the NRC for evaluation. Refer to Regulatory Guide 1.14 for information to be included. The examination results shall be included in the ISI Report discussed in SSP-6.10.

The flywheel consists of 2 plates, approximately 5 inches and 8 inches thick, bolted together. Each plate is fabricated from vacuum degassed A-533, GR. B, Class 1, steel.

The 3-year in place RCP examinations shall be recorded using the RCP motor serial number and exam ID:

RCP Motor S/N - BOREKEY (i.e., 4S-81P352 - BOREKEY)

For the 10-year exam, the IDs shall be:

RCP Motor S/N - SUR (i.e., 4S-81P352 - SUR)

RCP Motor S/N - VOL (i.e., 4S-81P352 - VOL)

SOURCE NOTES

<u>SOURCE NOTE</u>	<u>SOURCE DOCUMENT</u>	<u>SUMMARY</u>
1	T04 900910 966	INSERVICE INSPECTION (ISI) PROGRAM SCHEDULE FOR SUBMITTING THE PROGRAM TO THE NRC
2	NCO 920032003	COMMITMENT TO INCLUDE RCP FLYWHEEL INSPECTION IN ISI PROGRAM

Enclosure 2
PRESSURE TEST PROGRAM