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December 14, 2007

U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTENTION: Document Control Desk

SUBJECT: Nine Mile Point Nuclear Station
Unit No. 2; Docket No. 50-410

American Society of Mechanical Engineers (ASME) Code, Section XI, Inservice Inspection Program for the Third Ten-Year Inservice Inspection Interval and Associated 10 CFR 50.55a Requests

REFERENCES:

(a) Letter from G. J. Laughlin (NMPNS) to Document Control Desk (NRC), dated June 15, 2007, Extension of Ten-Year Program Intervals

(b) Letter from M. G. Kowal (NRC) to K. J. Polson (NMPNS), dated November 5, 2007, Nine Mile Point Nuclear Station, Unit No. 2 - Authorization Under 10 CFR 50.55a(a)(3)(i) for Proposed Alternative Reactor Pressure Vessel Circumferential Shell Weld Volumetric Examinations (TAC No. MD3696)

(c) Letter from R. P. Correia (NRC) to J. H. Mueller (NMPC), dated May 31, 2001, Nine Mile Point Nuclear Station, Unit No. 2 - Approval to Use a Risk-Informed Inservice Inspection Program for the Second 10-Year Interval (TAC No. MB0297)

This letter submits the Nine Mile Point Unit 2 (NMP2) Third Ten-Year Inservice Inspection (ISI) Plan and Schedule (Enclosure 1) and requests NRC approval of the associated 10 CFR 50.55a requests pursuant to 10 CFR 50.55a(a)(3) or 10 CFR 50.55a(g)(6)(i), as applicable.

In accordance with 10 CFR 50.55a(g)(4)(ii), the NMP2 ISI program has been updated to comply with the latest edition and addenda of the ASME Code, Section XI, incorporated by reference in 10 CFR 50.55a(b). The NMP2 third ten-year ISI interval will commence on April 5, 2008 and end on April 4, 2018; therefore, the 2001 Edition with 2003 Addenda of ASME Section XI is the applicable Code. Please note that Nine Mile Point Nuclear Station, LLC (NMPNS) has chosen not to extend the current second ten-year ISI interval, as had previously been indicated in Reference (a).

There are nine (9) 10 CFR 50.55a requests associated with the third ten-year ISI program. The details of these requests are contained in Appendix H of the enclosed ISI Plan and Schedule.

A047
NRR

- Request Number 2ISI-001A has previously been authorized for use through the end of the NMP2 license renewal extended period of operation (see Reference b). No further NRC action is required.

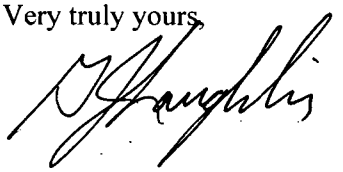
- Request Numbers 2ISI-002 through 2ISI-006 and 2ISI-008 were previously granted as part of the second ten-year interval for NMP2. Based on a detailed review of these requests, NMPNS has determined that certain limitations still exist; therefore, NMPNS requests that the NRC re-approve these requests for the third ten-year ISI interval.

- Request Numbers 2ISI-007 and 2ISI-009 were previously authorized for use as part of the second ten-year interval for NMP2. NMPNS requests that the NRC re-authorize the use of these alternatives for the third ten-year ISI interval. Request Number 2ISI-007 specifically describes the NMP2 risk-informed inspection (RI-ISI) program. The NRC approved the use of RI-ISI for the second ten-year ISI interval in Reference (c). NMPNS plans to continue using RI-ISI for the third ten-year ISI interval.

This letter does not contain any regulatory commitments.

Should you have any questions regarding the information in this submittal, please contact T. F. Syrell, Licensing Director, at (315) 349-5219.

Very truly yours,



Gary Jay Laughlin
Manager Engineering Services

GJL/DEV

Enclosure: 1. Nine Mile Point Nuclear Station, Unit 2 - Third Ten-Year Inservice Inspection Plan and Schedule (CNG-NMP2-ISI-003, Revision 00)

cc: S. J. Collins, NRC
M. J. David, NRC
Resident Inspector, NRC

ENCLOSURE 1

NINE MILE POINT NUCLEAR STATION, UNIT 2

THIRD TEN-YEAR INSERVICE INSPECTION PLAN AND SCHEDULE

(CNG-NMP2-ISI-003, Revision 00)

Nine Mile Point Nuclear Station, LLC
December 14, 2007

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THIRD TEN-YEAR INSERVICE INSPECTION INTERVAL
April 5, 2008 To April 4, 2018

THIRD TEN-YEAR INSERVICE INSPECTION PLAN AND SCHEDULE

Commercial Service Date:			April 5, 1988
NRC Docket Number:			50-410
Document Number:			CNG-NMP2-ISI-003
Revision Number:	00	Date:	October 31, 2007

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RECORD OF REVISION			
REV. No.	SECTION	DATE OF REVISION	SECTION DESCRIPTION
00	All	October 31, 2007	Initial issue of updated Third Ten-Year In-service Inspection Interval Plan and Schedule

ABBREVIATIONS

Listed below are the abbreviations utilized in this document:

AMP	Aging Management Program
ANII	Authorized Nuclear In-service Inspector
ANSI	American Nuclear Standard Institute
ASS	Auxiliary Steam
ASME	American Society of Mechanical Engineers
B&PV	Boiler & Pressure Vessel Code
BC	Branch Connection
BWR	Boiling Water Reactor
BWROG	Boiling Water Reactor Owner's Group
CC	Crevice Corrosion
CEG	Constellation Energy Group
CFR	Code of Federal Regulations
CLB	Current License Basis
CRC	Corrosion Resistant Cladding
CRD	Control Rod Drive
CRA	Code Required Area (Surface)
CRS	Core Spray System
CRV	Code Required Volume
CSH	High Pressure Core Spray
CSL	Low Pressure Core Spray
DER	Reactor Building Equipment Drains
EC	Erosion-Cavitation
ECS	Emergency Cooling System
ECSCC	External Chloride Stress Corrosion Cracking

ABBREVIATIONS

FAC	Flow Accelerated Corrosion
FMEA	Failure Modes and Effects Analysis
FS	Flow Sensitive
FSAR	Final Safety Analysis Report
FWS	Feedwater System
GALL	Generic Aging Lessons Learned Report
GE	General Electric
GL	Generic Letter
ICS	Reactor Core Isolation Cooling
IEB	Inspection and Enforcement Bulletin (USNRC)
IEN	Inspection and Enforcement Notice (USNRC)
IHSI	Induction Heat Stress Improvement
ISI	In-service Inspection
IGSCC	Intergranular Stress Corrosion Cracking
IVVI	In-Vessel Visual Inspections
LC	Localized Corrosion
LRA	License Renewal Application
MIC	Microbiologically-Induced Corrosion
MSS	Main Steam System
MT	Magnetic Particle Examination
N/A	Not Applicable
NBVI	Nuclear Boiler Vessel Instrumentation
NDE	Nondestructive Examination
NMP2	Nine Mile Point Nuclear Station Unit 2
NPS	Nominal Pipe Size

ABBREVIATIONS

NMPNS	Nine Mile Point Nuclear Station, LLC
NSSS	Nuclear Steam Supply System
NWT	Nominal Wall Thickness
OD	Outside Diameter
P&ID	Piping and Instrumentation Diagram
PDI	Performance Demonstration Initiative
PIT	Pitting
PT	Liquid Penetrant Examination
RHS	Residual Heat Removal System
RHSI	Resistant Heat Stress Improvement
RI-BER	Risk-Informed Break Exclusion Region
RICSIL	Rapid Information Communication Services Information Letter
RI-ISI	Risk-Informed In-service Inspection
RCS	Reactor Coolant (Recirculation) System
RDS	Control Rod Drive Hydraulic System
RG	Regulatory Guide (USNRC)
RPV	Reactor Pressure Vessel
RXVI	Reactor Vessel Instrumentation
SCC	Stress Corrosion Cracking
SD	Structural Discontinuity
SIL	Services Information Letter
SRP	Standard Review Plan (USNRC)
SURF	Surface Examination
SI	Stress Improvement
SLS	Standby Liquid Control

ABBREVIATIONS

TASCS	Thermal Stratification, Cycling and Striping
TE	Terminal End
TF	Thermal Fatigue
TGSCC	Tran granular Stress Corrosion Cracking
TS	Technical Specifications
TT	Thermal Transients
USAR	Updated Safety Analysis Report
UT	Ultrasonic Examination
USNRC	United States Nuclear Regulatory Commission
VOL	Volumetric Examination
VT	Visual Examination (suffix number denotes type of exam, (VT-1, VT-2, VT-3))
WCS	Reactor Water Cleanup
WinISI 2004	Computerized Window-Based In-service Inspection Data Base Management Software

GLOSSARY OF TERMS

ACCIDENT SEQUENCE - a combination of events leading from an initiating event that challenges safety systems to an undesired consequence, such as core damage or breach of containment integrity.

ASSESS - to determine by evaluation of data compared with previously obtained data such as operating data or design specifications.

AUTHORIZED INSPECTION AGENCY - an organization that is empowered by an enforcement authority to provide inspection personnel and services as required by Section XI.

AUTHORIZED NUCLEAR INSERVICE INSPECTOR - a person who is employed and has been qualified by an Authorized Inspection Agency to verify that examinations, tests and repair/replacement activities (that do not include welding or brazing) are performed in accordance with the requirements of Section XI. A02

AUTHORIZED NUCLEAR INSPECTOR - an employee of an Authorized Inspection Agency who has been qualified in accordance with NCA-5000 of Section III.

BELTLINE REGION – the region of the reactor vessel (shell material including welds, heat affected zones, and plates or forgings) that directly surrounds the effective height of the active core and adjacent regions of the reactor vessel that are predicted to experience sufficient neutron radiation damage to be considered in the selection of the most limiting material with regard to radiation damage. A02

COMPONENT – a vessel, concrete containment, pump, valve, storage tank, piping system, or core support structure. E04

COMPONENT SUPPORT - a metal support designed to transmit loads from a component to the load-carrying building or foundation structure. Component supports include piping supports and encompass those structural elements relied upon to either support the weight or provide structural stability to components.

CONSTANT LOAD TYPE SUPPORT - spring type support that produces a relatively constant supporting force throughout a specified deflection

CONSTRUCTION - an all-inclusive term comprising materials, design, fabrication, examination, testing, inspection and certification required in the manufacturer and installation of items.

CONSTRUCTION CODE – nationally recognized Codes, Standards, and Specifications (e.g., ASME, ASTM, USAS, ANSI, API, AWWA, AISC, MSS, AWS) including designated Cases, providing construction requirements for an item.

CORE DAMAGE - prolonged oxidation and severe fuel damage due to uncovering and heat up of the reactor core.

CORE DAMAGE FREQUENCY - an estimate of the likelihood of a severe accident associated with core damage.

CORE SUPPORT STRUCTURES - those structures or parts of structures that are designed to provide direct support or restraint of the core (fuel and blanket assemblies) within the reactor pressure vessel

CORRECTIVE ACTION - action taken to resolve flaws and relevant conditions, including supplemental examinations, analytical evaluation, repair/replacement activities, and corrective measures.

CORRECTIVE MEASURES – actions (such as maintenance) taken to resolve relevant conditions, but not including supplemental examinations, analytical evaluations, and repair/replacement activities.

GLOSSARY OF TERMS

DEFECT - a flaw (imperfection or unintentional discontinuity) of such size, shape, orientation, location, or properties as to be rejectable.

DISCONTINUITY - a lack of continuity or cohesion; an interruption in the normal physical structure of material or a product

DISSIMILAR METAL WELD – a weld between (a) carbon or low alloy steels to high alloy steels, (b) carbon or low alloy steels to high nickel alloys, or (c) high alloy steels to high nickel alloys.

ENFORCEMENT AUTHORITY - a regional or local governing body, such as a State or Municipality of the United States or a Province of Canada, empowered to enact and enforce Boiler and Pressure Vessel Code legislation.

ENGINEERING EVALUATION - an evaluation of indications that exceed allowable acceptance standards to determine if the margins required by the Design Specification and the Construction Code are maintained.

EVENT TREE - a quantifiable logical network that begins with an initiating event or condition and progresses through a series of branches (usually binary) that represents expected system or operator performance that either succeeds or fails and arrives at either a success or failed condition (e.g., core damage) at the end of the tree.

EVALUATION - the process of determining the significance of examination or of test results, including the comparison of examination or test results with applicable acceptance criteria or previous results.

EXAMINATION CATEGORY - a grouping of items to be examined or tested.

FAILURE - events involving leakage, rupture, or conditions that would disable a component's ability to perform its intended safety function.

FAILURE MODE - a condition or degradation mechanism that can cause a failure.

FAILURE MODES AND EFFECTS ANALYSIS - an analysis intended to identify the conceivable failure modes of a component and the impact of the failure on operations, the system, and surrounding components along with the likelihood of the failure and consequences.

FLAW - an imperfection or unintentional discontinuity that is detectable by nondestructive examination

GALL – The Generic Aging Lessons Learned Report that contains the Nuclear Regulatory Commission staffs generic evaluation of the existing plant programs and documents the technical basis for determining where existing programs are adequate without modification and where existing programs should be augmented for the extended period of operation. NUREG-1801, Volume 1 and 2, July 2001.

HANGER - an item that carries the weight of components or piping from above with the supporting members being mainly in tension

IMPERFECTION - a condition of being imperfect; a departure of a quality characteristic from its intended condition

INDICATION - the response or evidence from the application of a nondestructive examination

INSERVICE EXAMINATION - the process of visual, surface, or volumetric examination performed in accordance with the rules and requirements of Section XI.

GLOSSARY OF TERMS

INSERVICE INSPECTION - methods and actions for assuring the structural and pressure-retaining integrity of safety-related nuclear power plant components in accordance with the rules of Section XI.

INSPECTION - verification of the performance of examinations and tests by an Inspector.

INSPECTION PROGRAM- the plan and schedule for performing examinations or tests.

INSPECTOR - an Authorized Nuclear In-service Inspector, except for those instances where so designated as Authorized Nuclear Inspector.

INSPECTION INTERVAL - duration of time, typically 10-years.

INSPECTION PERIOD - duration of time within an ten-year inspection interval, as determined by applicable edition/addenda of Section XI, Program B.

ITEM - a material, part, appurtenance, piping sub-assembly, component or component support.

MAINTENANCE - routine servicing or work undertaken to correct, adjust or prevent an abnormal or unsatisfactory condition.

NONDESTRUCTIVE EXAMINATION - an examination by the visual, surface or volumetric method.

OPEN ENDED - a condition of piping or lines that permits free discharge to atmospheric or containment atmosphere

OWNER - the organization legally responsible for the construction and/or operation of a nuclear facility including but not limited to one who has applied for, or who has been granted, a construction permit or operating license by the regulatory authority having lawful jurisdiction.

PIPING SEGMENT - a portion of piping for which a failure at any point in the segment results in the same consequence (e.g., loss of the system, loss of a pump train) as a failure at any other point in the segment and includes piping structural elements between major discontinuities, such as pumps and valves.

PIPING STRUCTURAL ELEMENT - an item within a specified piping segment, such as a straight length of pipe, a pipe elbow, a coupling, a fitting, a flanged joint, or a weld.

PIPING SYSTEM - an assembly of piping segments, piping supports, and other components that may consist of one or more Code classes with a defined function as described within the In-service Inspection Program.

PROBABILISTIC RISK ASSESSMENT (PRA) - a quantitative assessment of the risk associated with plant operation and maintenance and measured in terms of frequency of occurrence of different events, including severe core damage or a breach of containment integrity.

RELEVANT CONDITION - a condition observed during a visual examination that requires supplemental examination, corrective measure, correction by repair/replacement activities, or analytical evaluation

REGULATORY AUTHORITY - a federal government agency, such as the United States Nuclear Regulatory Commission, that is empowered to issue and enforce regulations affecting the design, construction, and operation of nuclear power plants.

GLOSSARY OF TERMS

SUBSEQUENT PERIOD - is the next following period, even if it is in the following ten-year inspection interval.

SUPPORT - (1) an item used to position components, resist gravity, resist dynamic loading, or maintain equilibrium of components; (2) an item that carries the weight of a component or piping from below with the supporting members being mainly in compression.

SUPPORT PART - a part of subassembly of a component support or piping support.

TERMINAL ENDS - the extremities of piping runs that connect structures, components, or pipe anchors, each of which acts as a rigid restraint or provides at least 2 degrees of restraint to piping thermal expansion.

VARIABLE SPRING TYPE SUPPORT - a spring type support providing a variable supporting force throughout a specified deflection

VIBRATION CONTROL AND SWAY BRACE - a spring type support providing a variable force along its axis.

VERIFY - to determine that a particular action has been performed in accordance with the rules and requirements of Section XI either by witnessing the action or by reviewing records.

ABSTRACT

This document describes the Updated Third Ten-Year In-service Inspection Plan and Schedule for Nine Mile Point Nuclear Station, Unit 2 (NMP2).

This document defines the basis for those pressure retaining components and/or systems (including their supports), which are classified ASME Code Class 1, Class 2, and Class 3, and subject to examination, as set forth in the applicable Edition of the ASME Boiler and Pressure Vessel Code, Section XI, to the extent practical within the limitations of design, geometry and materials of construction of the components pursuant to Title 10, Part 50, Section .55a (b)(2) of the Code of Federal Regulations.

The ASME Boiler and Pressure Vessel Code, Edition applicable to the Nine Mile Point Nuclear Station, Unit 2, Third In-service Inspection Interval Plan and Schedule is the 2001 Edition through the 2003 Addenda of Section XI, hereafter referred to as the Code.

This document also provides the augmented in-service inspections required by Generic Letter 88-01 as provided in Section 6 of this document.

Aging Management

For the purpose of license renewal, the NRC staff has evaluated the appropriate ASME Section XI programs based on the ten program elements described in the GALL report. Except where noted, the NRC staff has determined that the ASME Section XI programs provide processes for identifying degradation that is attributable to applicable aging effects and are therefore acceptable for managing the effects of aging during the period of extended operation. The aging management programs (AMPs) as referenced in the GALL report that are being credited and are managed in whole or in part by the ASME Section XI monitoring programs for license renewal during the period of extended operation are listed below.

AMPs	Title of Aging Management Programs

All or portions of these AMP's have been credited to manage the effects of aging for systems, structures and components within the scope of license renewal.

XI.M1	ASME Section XI In-service Inspection, Subsections IWB, IWC, and IWD
XI.M3	Reactor Head Closure Studs
XI.M5	BWR Feedwater Nozzle
XI.M6	BWR Control Rod Drive Return Line Nozzle
XI.M7	BWR Stress Corrosion Cracking
XI.S1	ASME Section XI, Subsection IWE
XI.S2	ASME Section XI, Subsection IWL
XI.S3	ASME Section XI, Subsection IWF

Actions required for license renewal will be incorporated within the updated ASME programs as mandated by 10 CFR 50.55a prior to the start of the extended period of operation.

SECTION 1 – INTRODUCTION

1.0 INTRODUCTION

This document details the basis and plans for the Third Ten-Year In-service Inspection Interval for components, welds, supports, bolting, pump casings, valve bodies, and reactor pressure vessel internals for the Nine Mile Point Nuclear Station, Unit 2. The following historical information has been considered in the development of the overall In-service Inspection Program:

- Issuance of Construction Permit — June 24, 1974
- Issuance of Low Power Operating License (NPF-54) — October 31, 1986
- Issuance of Full Power Operating License (NPF-69) — July 2, 1987
- Commercial Operation Date — April 4, 1988
- First Ten-Year Inspection Interval — April 5, 1988 to April 4, 1998
- Second Ten-Year Inspection Interval — April 5, 1998 to April 4, 2008

1.1 Inspection Interval

a. The First In-service Inspection Interval began April 5, 1988 and ended on April 4, 1998, and was developed to meet the 1983 Edition through the Summer 1983 Addenda of Section XI.

b. The Second In-service Inspection Interval began April 5, 1998 and ended on April 4, 2008, and was developed to meet the 1989 Edition no Addenda of Section XI.

The second ten-year in-service inspection program was extended to December 31, 2008. Reference: NMP Letter NMP2L 2158, dated June 15, 2007.

c. The Third In-service Inspection Interval becomes effective on April 5, 2008 and is scheduled to end on April 4, 2018 and was developed to meet the 2001 Edition through the 2003 Addenda of Section XI.

1.2 Inspection Periods

The Third In-service Inspection Interval is divided into three successive inspection periods as determined by calendar years of plant service within the inspection interval. Identified below are the period dates for the third inspection interval as defined by Inspection Program "B".

In accordance with IWA-2430(d)(3), the inspection period specified below may be decreased or extended by as much as 1 year to enable inspections to coincide with NMP2's plant outages. This adjustment shall not alter the requirements for scheduling inspection intervals.

TABLE 1-2
NMP2 INSERVICE INSPECTION PERIODS

INSPECTION PERIODS	PERIOD START DATES	PERIOD END DATES	REFUEL OUTAGE	REFUEL OUTAGE YEAR
1	April 5, 2008	April 4, 2011	RFO-12	2010
2	April 5, 2011	April 4, 2015	RFO-13 RFO-14	2012 2014
3	April 5, 2015	April 4, 2018	RFO-15 RFO-16	2016 2018

1.3 Applicable Documents

The Third In-service Inspection Program for ASME Code Class 1, 2 and 3, systems and components (including their supports) was developed after giving due consideration to the following documents and subject to the limitations and modifications listed in 10 CFR 50.55a(b), and to the extent practical within the limitations of design, geometry and materials of construction. Specific areas within this plan where these documents are used in the preparation of the inspection program are addressed within each area that is affected.

- **Code of Federal Regulations**

  10 CFR 50.55(a) Code of Federal Regulations; (Reference: February 14, 2007)

  Federal Register, Volume 72, Number 65, dated April 5, 2007, 10 CFR Part 50 Industry Codes and Standards; Amended Requirements; Proposed Rule;

  10 CFR 54 Requirements for Renewal of Operating License for Nuclear Power Plants.

- **ASME Code Editions and Addenda**

  ASME Boiler and Pressure Vessel Code, Sections V, 2001 Edition, "Nondestructive Examination"

  ASME Boiler and Pressure Vessel Code, Section XI, 2001 Edition, through 2003 Addenda, "Rules for In-service Inspection of Nuclear Power Plant Components"

- **USNRC Regulatory Guides**

  The following list of Regulatory Guides are applicable to the Nine Mile Point Nuclear Station Third In-service Inspection Program:

  1.26 Quality Group Classifications and Standards for Water-Steam, and Radioactive-Waste-Containing Components of Nuclear Power Plants, Revision 2, June 1975.

  1.65 Materials and Inspections for Reactor Vessel Closure Studs, dated October 1973, Regulatory Position C.4.b.

  1.84 Design and Fabrication Code Case Acceptability ASME Section III, Division 1, Latest Revision.

1.85 Material Code Case Acceptability ASME Section III, Division 1, Latest Revision.

1.147 In-service Inspection Code Case Acceptability ASME Section XI, Division 1, Revision 15, October 2007.

1.150 Ultrasonic Testing of Reactor Vessel Welds During Pre-service and In-service Examination, U.S. Nuclear Regulatory Commission, February 1983, Revision 1.

Note: RG 1.150 has been replaced by the requirements of Appendix VIII as modified by PDI.

- **NMP2 Plant Specific Documents**

Nine Mile Point Unit 2 Updated Safety Analysis Report.

Nine Mile Point Unit 2 Improved Technical Specifications and/or Technical Requirements Manual

USNRC Docket Number 50-410, NMP2 Facility Operating License NPF-69

EPRI TR-112657, Electric Power Research Institute Report for Alternative Requirements of Risk-Informed In-service Inspection Methodology.

EPRI TR-1006937, Electric Power Research Institute Report for Extension of EPRI Risk-Informed In-service Inspection Methodology to Break Exclusion Region Program Final Report, Rev. 0-A, August 2002.

Constellation Energy NMPNS Amended License renewal Application.

- **Performance Demonstrative Initiative Documents**

NRC Assessment of the PDI Program, March 6, 1996, Jack Strosnider, Chief Materials and Chemical Engineering Branch, to Bruce Sheffel, Chairmen PDI, March 6, 1996.

IGSCC Performance Demonstration Administered by PDI as an Alternative for Generic Letter 88-01 Recommendations, Edmund J. Sullivan Jr. Acting Branch Chief to Frank Leonard chairman PDI, September 2, 1998.

PDI Program Description,@ Rev (1) Change (1),

EPRI Guideline for the Implementation of Appendix VIII and 10 CFR 50.55a, Revision D, dated 04/18/2000 Draft.

- **USNRC NUREGS/SRP's**

USNRC NUREG 0313, Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping, Revision 2.

USNRC NUREG 1047, Safety Evaluation Report related to the operation of Nine Mile Point Nuclear Station, Unit 2, Docket Number 50-410, February 1985.

USNRC Branch Technical Position MEB 3-1 (BTP MEB 3-1) of the Standard Review Plan Section 3.6.2 of NUREG 0800, has been utilized by NMP2 as noted in USAR Section 3.6, entitled, Protection Against Dynamic Effects Associated with Postulated Rupture of Piping.

USNRC NUREG 1801, Volume 1 and 2, Generic Aging Lessons Learned (GALL) Report.

USNRC NUREG 1900, Volume 1 and 2, Safety Evaluation Report Related to the License renewal of NMPNS, Units 1 and 2.

- **USNRC Generic Letters**

  88-01 USNRC Position on IGSCC in BWR Austenitic Stainless Steel Piping, January 25, 1988.

  88-01 NRC Position on Intergranular Stress Corrosion Cracking (IGSCC) in BWR Austenitic Stainless Steel Piping, Supplement 1, February 4, 1992.

  90-05 Guidance for Performing Temporary Non-Code Repairs to ASME (ISI) Code Class 1, 2 and 3 Piping and Components, June 15, 1990.

  98-05 Boiling Water Reactor Licensees Use of the BWRVIP 05 Report to Request Relief from Augmented Examination Requirements on Reactor Pressure Vessel Circumferential Shell Welds, December 10, 1998.

- **Boiling Water Reactor Vessel Inspection Program (BWRVIP) References or Commitments**

  Requirements of the BWRVIP Reactor Vessel and Internals (IVVI) Inspection Program is contained in applicable Nuclear Engineering Reports (NER's), and are outside the scope of this document.

  BWRVIP-05 B Boiling Water Reactor Vessel and Internals Project

  BWRVIP 75 - Technical Basis for Revision to Generic Letter 88-01 Inspection Schedules, EPRI TR-113932, dated October 1999.

- **USNRC Informational Notices**

  98-44 Ten-Year In-service Inspection (ISI) Program Update for Licensees That Intend to Implement Risk-Informed ISI of Piping, dated August 11, 1999.

- **ASME Code Cases**

  Code Cases approved for use through Regulatory Guide 1.147 may be proposed for revision to the inspection plan. Specific Code Cases used in the preparation of this inspection plan or included for proposed use are identified in Appendix I of this document.

1.4 Applicable Code Editions and Addenda

1.4.1 Third Inspection Interval

Pursuant to Title 10, Part 50, Section 55a(g)(4), of the Code of Federal Regulations, the In-service Inspection requirements applicable to nondestructive examination for the Third In-service Inspection Interval are based on the rules set forth in the 2001 Edition through the 2003 Addenda of Section XI, that was endorsed twelve months prior to the start of the Third In-service Inspection Interval.

1.4.2 Subsequent Code Editions and Addenda

As permitted by 10 CFR 50.55a(g)(4)(iv), NMPNS may elect to meet the requirements set forth in subsequent Editions and Addenda of Section XI that are incorporated by reference into 10 CFR 50.55a(b)(2), and subject to the applicable limitations and modification and subject to USNRC approval.

Portions of Editions and Addenda may also be used provided that all related requirements to the respective Editions and Addenda are met. NMPNS intends to continually evaluate and apply, as appropriate, changes in adopted Code Editions and Addenda which provide the continuing assurance of the quality and safety of pressure retaining components and systems.

Note: On July 28, 2004 the USNRC issued NRC Regulatory Issue Summary 2004-12, Clarification on use of later editions and addenda to ASME OM Code and Section XI. If NMPNS plans to use later editions and addenda to ASME OM Code and Section XI that have been incorporated by reference into 10 CFR 50.55a must obtain prior approval pursuant to 10 CFR 50.55a(f)(4)(iv) or (g)(4)(iv). NMPNS may request this approval by submitting a letter to the NRC Document Control Desk.

1.5 ASME Code Classifications

System safety classifications, design and fabrication requirements meet the intent of 10 CFR 50.2v and Regulatory Guide 1.26, to the extent practical within the limitations of design, geometry and materials of construction of the components, as identified within the Nine Mile Point Nuclear Station, Unit 2, Updated Safety Analysis Report (USAR). NMP2 was constructed and certified to American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section III.

Water, steam and radioactive containing components (other than turbines and condensers) are designated ASME Code Class 1, 2 or 3, and that are safety-related.

1.5.1 ASME Code Class 1

ASME Code Class 1 system boundaries were developed based on 10 CFR 50.2(v), and the NMP2 FSAR, and apply to the reactor coolant pressure boundary components.

The Reactor Coolant system includes a single cycle, forced circulation, General Electric Boiling Water Reactor (BWR-5).

1.5.2 ASME Code Class 2

ASME Code Class 2 system boundaries were developed based on Regulatory Guide 1.26 and the NMP2 FSAR, and apply to those components of the Reactor Coolant System not classified as ASME Code Class 1, and that are safety-related.

1.5.3 ASME Code Class 3

ASME Code Class 3 system boundaries were developed based on Regulatory Guide 1.26 and the NMP2 FSAR, and apply to those components that are not classified as ASME Code Class 1 or 2, and that are safety-related.

1.5.4 Non-Nuclear Safety-Related

Non-Safety-Related applies to those components not related to nuclear safety, and as such are not included within this document with the following exception:

1. The main steam lines from the outermost containment isolation valves to the turbine stop valves were neither classified nor constructed to ASME III, Division 1, Class 2 criteria. Rather, they were constructed to the ANSI B31.1 Code, with additional quality requirements. They have been optionally up-graded to ASME Code Class 2 in this plan, and are inspected accordingly.

2. The Reactor Water Cleanup System piping in the reactor building, beyond the outermost isolation valve, although classified as Anot important to safety,@ were optionally upgraded to ASME III, Division 1, ASME Code Class 3, and constructed accordingly. This classification is most notably for repair and replacement activities.

   Note: USNRC has found, in NUREG-1047, the safety evaluation report related to the operation of NMP2, that these specific rules for classification are in conformance with the ASME Code and industry standards, the Commission's regulations, and the guidance found in Reg. Guide 1.26.

1.5.5 Application

Application of the rules of Section XI are governed by the group classification criteria as defined above and applied as follows:

1. The rules of IWB were applied to those systems whose components are classified ASME Class 1.
2. The rules of IWC were applied to those systems whose components are classified ASME Class 2.
3. The rules of IWD were applied to those systems whose components are classified ASME Class 3.
4. The requirements of IWE were applied to components classified ASME Class MC and to metallic shell and penetration liners classified ASME Class CC.
5. The requirements of IWF were applied to supports classified ASME Class 1, 2, 3, or MC.

1.5.6 Optional Construction of a Component

Optional construction of a component within a system boundary to a classification higher than the minimum class established in the component Design Specification (either upgrading from Class 2 to Class 1 or from Class 3 to Class 2) shall not affect the overall system classification by which the applicable rules of Section XI are determined.

1.5.7 Piping Penetrating Containment

The portions of piping that penetrates a containment vessel, which is required by Section III to be constructed to be Class 1 or 2 rules for piping and which may differ from the classification of the balance of the piping system, need not affect the overall system classification that determines the applicable rules of Section XI.

1.5.8 Classification Diagrams

The ASME Code Class 1, 2 and 3 classification interfaces between components of different classes applicable to Nine Mile Point Nuclear Station, are designated on various ASME Section XI Boundary Diagrams (P&I Ds). These designations identify the system class breaks.

The rules of IWB, IWC and IWD were applied to these diagrams in order to determine those components/systems subject to examination/test. Components subject to surface, volumetric and visual examination are listed in the ASME Section XI Summary Tables in Appendix A, B, C and D.

Appendix G provides a list of the applicable ASME Section XI Boundary diagrams (P&I Ds). Copies of these diagrams are available through the NMPNS drawing control system.

1.6 Inspection Program B

The Nine Mile Point Nuclear Station inspection intervals comply with IWA-2432, Inspection Program B. With the exceptions of the examinations identified in 1.6.1, the required examinations in each examination category shall be completed in accordance with Table 1-6.

1.6.1 Class 1, 2 and 3 Components

(a) The required percentages of examinations in each Examination Category shall be completed in accordance with Table IWB-2412-1, IWC-2412-1, and IWD-2412-1, with the following exceptions:

(1) Examination Categories B-N-1, B-P, B-Q, C-H, and the system pressure test requirements of D-A, D-B and D-C;

(2) Examinations partially deferred to the end of the inspection interval, as allowed by Examination Categories B-A, B-D and B-F.

(3) Examinations deferred to the end of an inspection interval, as allowed by Examination Categories B-A, B-L-1, B-M-1, B-N-2, B-N-3, and B-O;

(4) Examination deferred until disassembly of a component for maintenance, repair/replacement activity, or volumetric examination as allowed by Examination Categories B-G-1, B-G-2, B-L-2 and B-M-2.

(5) Welded attachments examined as a result of component support deformation under Examination Category B-K;

If there are less than three items or welds to be examined in an Examination Category, the items or welds may be examined in any two periods or in any one period if there is only one item or weld, in lieu of the percentage requirements of Table 1-6 below.

(b) If items or welds are added to the Inspection Program, during the service lifetime of a plant, examination shall be scheduled as follows:

(1) When items or welds are added during the first period of an interval, at least 25% of the examinations required by the applicable Examination Category and Item Number for the added items or welds shall be performed during each of the second and third periods of the interval. Alternatively, if deferral of the examinations is permitted for the Examination Category and Item Number, the second period examinations may be deferred to the third period and at least 50% of the examinations required by the applicable Examination Category and Item Number for the added items or welds shall be performed during the third period.

(2) When items or welds are added during the second period of the interval, at least 25% of the examinations required by the applicable Examination Category and Item Number for the added items or welds shall be performed during the third period of the interval.

(3) When items or welds are added during the third period of an interval, examinations shall be scheduled in accordance with IWB-2412(a) for successive intervals.

1.6.2 Component Supports

The required examinations shall be completed in accordance with the inspection schedule established for the components under IWB, IWC, and IWD.

TABLE 1-6
INSPECTION PROGRAM B

Inspection Interval	Inspection Period Calendar Years of Plant Service Within the Interval	Minimum Examination Completed, %	Maximum Examination Credited, %
NMP2 3RD. In-service Inspection Interval	3	16%	50%
	7	50[1]%	75%
	10	100%	100%

Note: (1) If the first period completion percentage for any examination Category exceeds 34%, at least 16% of the required examinations shall be performed in the second period.

1.7 Development of Inspection Program

Sections 2 through 6 provides a narrative description of the Nine Mile Point Unit 2 Third In-service Inspection Program basis for ASME Code Class 1, 2 and 3, (including their Supports and Augmented Examinations), of components and/or systems subject to examination/test.

1.8 Substitute Examinations

NMPNS may substitute items scheduled in the Inspection Plan for others not previously scheduled . This substitution may be done due to such conditions as limited physical access, high radiation levels, etc. Such changes will be documented in accordance with ASME Section XI requirements.

1.9 Exclusions/Exceptions

1.9.1 Containment Inspection Program

The Containment In-service Inspection Program for Class MC, Subsection IWE and Class CC, Subsection IWL is addressed in document CNG-NMP2-CISI-003, Latest revision.

1.9.2 Alternative Risk-Informed In-service Inspection Program

The Alternate Risk-Informed In-service Inspection Program for ASME Code Class 1 and 2, Examination Categories B-F, B-J, C-F-1, C-F-2 and IGSCC Category A piping welds are addressed in Section 7 of this document. Also included in Section 7 of this document is the Augmented Risk-Informed Break Exclusion Region Program requirements.

1.9.3 Additional Programs

In addition to the above items, the following Programs are outside the scope of this document. They are

addressed in separate documents.

- In-service Pump and Valve Test Program
- IWE Class MC and IWL Class CC Containment Examination Program
- System Pressure Test Program
- Containment Pressure Test Program

1.9.4 Break Exclusion Regions

For those portions of high-energy fluid system piping, pre-service and subsequent in-service examinations are performed in accordance with the requirements specified in ASME Section XI and includes all non-exempt ASME Code Section XI circumferential and longitudinal welds within the break exclusion region for high-energy fluid system piping. These inspections consist of augmented volumetric examination (nominal pipe size greater than or equal to 4 inches).

The break exclusion zone consists of those portions of high-energy fluid system piping between the moment limiting restraint(s) outside the outboard containment isolation valve and the moment limiting restraint(s) beyond the inboard containment isolation valve. The choice of the restraint(s) that define the limits of the break exclusion zone is based upon those restraints which are necessary to ensure the operability of the primary containment isolation valves. The break exclusion regions are located in the following four (4) systems:

- MSS Main Steam System
- ICS Reactor Core Isolation Cooling (steam supply)
- FWS Feedwater System
- WCS Reactor Water Clean-up System

Note: The USAR commitment for examining break exclusion region welds may result in the examination of the following four (4) Class 3 and two (2) Class 4 welds. These being:

TABLE 1-9
BREAK EXCLUSION WELDS

Class	Weld Identification	System
Class 3	2WCS-09-06-FW022	WCS
Class 3	2WCS-09-14-FW006	WCS
Class 3	2WCS-09-14-FW007	WCS
Class 3	2WCS-09-14-FW008	WCS
Class 4	2FWS-47-13-FW002	FWS
Class 4	2FWS-47-16-FW002	FWS

Note: NMPNS has developed an Augmented Risk-Informed Break Exclusion Region program in accordance with the EPRI BER-TR. Augmented inspections of break exclusion regions have been incorporated within Section 7 of this document.

SECTION 2 - ASME CODE CLASS 1 SYSTEMS/COMPONENTS

2.0 ASME CODE CLASS 1 SYSTEMS/COMPONENTS

The ASME Code Class 1 system boundaries subject to examination and testing were developed based upon the requirements of 10 CFR 50.2(v) and Nine Mile Point Unit 2 (NMP2), Updated Safety Analysis Report (USAR). The ASME Code Class 1 components and systems (including their supports) subject to examination and testing is described in detail below:

Note: Systems subject to the examination requirements of this section are identified in the Table below:

ASME Code Class 1 Systems	System Identification
Reactor Pressure Vessel (RPV)	006
Main Steam System (MSS)	013
Feedwater System (FWS)	005
Reactor Recirculation System (RCS)	011
Reactor Water Cleanup System (WCS)	012
Reactor Core Isolation Cooling (ICS)	007
Reactor Vessel Instrumentation System (ISC)	008
Residual Heat Removal System (RHS)	014
High Pressure Core Spray System (CSH)	002
Low Pressure Core Spray (CSL)	003
Reactor Building Equipment Drains (DER)	004
Standby Liquid Control System (SLS)	009

2.1 ASME Code Exemptions (1989 Edition [1])

IWB-1220 - The following components (or parts of components) are exempted from the volumetric and surface examination requirements of IWB-2500:

(a) 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 that are operable from on-site emergency power.

(b)(1) Piping of NPS 1" (DN25) and smaller, except steam generator tubing;

(2) Components and their connections in piping of NPS 1"(DN25) and smaller;

(c) Reactor vessel head connections and associated piping, NPS 2" (DN50) and smaller, made inaccessible by control rod drive penetrations.

1 10 CFR 50.55(b)(2)(xi)(H)(1)(xi) prohibits use of IWB-1220, 1989 Addenda through 2003 Addenda from use and requires the 1989 Edition of IWB-1220 to be used

2.2 Component/Piping Examination Development

A narrative discussion of Class 1 components subject to examination and testing are described in detail below:

2.2.1 Category B-A, Pressure Retaining Welds in Reactor Vessel

All volumetric examinations are performed from the inside and/or outside surface of the vessel using manual/automated inspection equipment, (as applicable).

Note: Regulatory Guide 1.150 has been replaced by the Performance Demonstration techniques (PDI).

Items B1.11, B1.12 - Shell Welds

Scope of Examination - includes volumetric examination of essentially 100% of all (12) longitudinal and approximately 2 to 3% of the (4) circumferential shell weld lengths that intersect with longitudinal welds. (Does not include the shell to flange weld).

- (4) B1.11 Circumferential shell welds, (2 to 3% required)
- (12) B1.12 Longitudinal shell welds, (12) required

Subject to Request for Alternate: 2ISI-001A, (formally 2ISI-001) Submitted under letter (NMP2L 2147), dated (November 16, 2006) and Granted under USNRC SE, TAC No. MD3696, dated November 5, 2007. Perform essentially 100% examination of longitudinal welds and approximately 2 to 3 percent of circumferential shell welds at the intersecting longitudinal welds.

Note: The "A" means that 2ISI-001 was updated to identify the Edition and Addenda of Section XI as referenced by 10 CFR 50.55a applicable for the Third Inspection Interval.

Items B1.21, B1.22 - Bottom Head Welds

Scope of Examination - includes volumetric examination of essentially 100% of accessible length of (3) circumferential and (6) meridional bottom head welds.

- (3) B1.21 Circumferential head welds, (3) required
- (6) B1.22 Meridional head welds, (6) required

Subject to Request for Alternate: 2ISI-002, (Formally RR-IWB-7) - Perform ultrasonic examinations to the maximum extent possible based on design limitations.

Items B1.21, B1.22 - Top Head Welds

Scope of Examination - includes volumetric examination of essentially 100% of accessible length of (1) circumferential and (6) meridional top head welds.

- (1) B1.21 Circumferential head welds, (1) required
- (6) B1.22 Meridional head welds, (6) required

Item B1.30 - Shell-to-Flange Weld

Scope of Examination - Volumetric examination of 100% of the shell to flange weld. 50% of weld is performed from seal surface and 50% of the weld performed from the shell side.

- (1) B1.30 Circumferential shell to flange weld, (1) required

Subject to Request for Alternate: 2ISI-003 (Formally RR-IWB-3), - Perform ultrasonic examinations from the shell side to the maximum extent possible and supplement this with examination from the flange face.

The examination will be performed during the first and third inspection periods in conjunction with the nozzle examinations of Examination Category B-D (Program B). At least 50% of the weld shall be examined by the end of the First Inspection Period from the flange surface (seal surface), and the remainder by the end of the Third Inspection Period from the shell side.

Item B1.40 - Head to Flange Weld

Scope of Examination - includes volumetric and surface examination of essentially 100% of the reactor vessel head to flange weld length.

- (1) B1.40 Circumferential head to flange weld, (1) required, Examine 1/3 Each Period

Note: Code Case N-623, Deferral of Inspections of shell-to-flange and head-to-flange welds of reactor vessel. (See Appendix I for requirements)

Item B1.51 - Repair Welds (Beltline Region)

- Not applicable to Nine Mile Point Nuclear Station

2.2.2 Category B-B, Pressure Retaining Welds in Vessels Other Than Reactor Vessels.

- This Examination Category is not applicable to Nine Mile Point Nuclear Station.

2.2.3 Category B-D, Full Penetration Welded Nozzles in Vessels (Inspection Program B)

Reactor Vessels: Items B3.90, B3.100 - Nozzle to Vessel Welds and Nozzle Inside Radius Section

Scope of Examination - Volumetric examination of 100% of all nozzles with full penetration welds to vessel shell (or head) and integrally cast nozzles.

- (33) B3.90 RPV Nozzle-to-Vessel Welds, (33) required
- (33) B3.100 RPV Nozzle Inner Radius Sections, (33) required

Subject to Request for Alternate: 2ISI-004 (Formally RR-IWB-2), - Perform ultrasonic examination to the maximum extent practical, utilizing the latest UT techniques and equipment.

Note: **Note (2) of IWB-2500-1** - At least 25% but not more than 50% of the nozzles shall be examined by the end of the First Inspection Period, and the remainder by the end of the inspection interval.

Note: Code Case N-613-1, Ultrasonic examination of full penetration nozzles in vessel welds may be examined using the reduced examination volume (A-B-C-D-E-F-G-H). See Appendix I for requirements)

Pressurizer: Items B3.110, B3.120

- Not applicable to Nine Mile Point Nuclear Station.

Steam Generators: Items B3.130, B3.140

- Not applicable to Nine Mile Point Nuclear Station.

Heat Exchanger: Items B3.150, B3.160

- Not applicable to Nine Mile Point Nuclear Station.

2.2.4 Category B-F, Pressure Retaining Dissimilar Metal Welds In Vessel Nozzles

Reactor Vessel: Items B5.10, B5.20, B5.30

Volumetric and surface or surface examinations are required of all dissimilar metal safe end welds in each loop and connecting branch of the Reactor Coolant System. For the reactor vessel nozzle dissimilar metal safe end welds, the examination may be performed coincident with the vessel nozzle examinations required by Examination Category B-D.

Note: Examination Category B-F welds are also scheduled and examined as part of the IGSCC Augmented Inspection Program. The extent and frequency of the augmented inspections are defined in Section 6 of this document. Completed examinations shall be used to satisfy the percentage requirements of Inspection Program B, as applicable.

Scope of Examination - The selection and scheduling of examination items shall be in accordance with the Alternate Risk-Informed In-service Inspection, Section 7 of this document.

- (30) B5.10 NPS 4" or Larger Nozzle-to-Safe end butt welds, (None) required
- (1) B5.20 Less than NPS 4" Nozzle-to-Safe end butt welds, (None) required
- (0) B5.30 Nozzle-to-Safe end socket welds, Not applicable to NMP2

Subject to Request for Alternate: 2ISI-007, (formally RR-RI-ISI-2), - Perform examinations in accordance with Alternate Risk-Informed Inspection Program.

Pressurizer Items B5.40, B5.50, B5.60

- Not applicable to Nine Mile Point Nuclear Station.

Steam Generators: Items B5.70, B5.80, B5.90

- Not applicable to Nine Mile Point Nuclear Station.

Heat Exchanger: Items B5.100, B5.110, B5.120

- Not applicable to Nine Mile Point Nuclear Station.

2.2.5 Category B-G-1 - Pressure Retaining Bolting, Greater Than 2 in. In Diameter

Examination includes all bolts, studs, nuts, bushings, and threads in flange stud holes.

(1) Bolting may be examined in place under tension, when the connection is disassembled, or when the bolting is removed.

(2) Bushings and threads in base material of flanges are required to be examined only when the connections are disassembled, Bushings may be examined in place.

(3) Volumetric examination of bolting for heat exchangers, pumps, or valves may be conducted on one heat exchanger, one pump, or one valve among group of heat exchangers, pumps, or valves that are similar in design, type, and function. In addition, when the component to be examined contains a group of bolted connections of similar design and size, such as flanged connections, the examination may be conducted on one bolted connection among the group.

(4) Visual examination of bolting for heat exchangers, pumps, or valves is required only when the component is examined under Examination Category B-B, B-L-2 or B-M-2. Examination of a bolted connection is required only once during the interval.

(5) The examination of flange bolting in piping system may be limited to one bolted connection among a group of bolted connections that are similar in design, size, function, and service.

(6) Examination includes 1 in. annular surface of flange surrounding each stud.

(7) When bolts or studs are removed for examination, surface examination meeting the acceptance standards of IWB-3515 may be substituted for volumetric examination.

Reactor Vessel: Items B6.10, B6.20, B6.40, B6.50

Scope of Examination - Examinations consist of visual (VT-1) examination of reactor vessel closure head nuts, volumetric examination of closure head studs, volumetric examination of the threads in the base material of the reactor vessel flange only when the connections is disassembled, and visual (VT-1) examination of the closure washers and bushings.

- (76) B6.10 Closure Nuts, (76) required, 1/3 each period
- (76) B6.20 Closure Studs, (76) required, 1/3 each period
- (76) B6.40 Threads in Flange, (76) required, 1/3 each period
- (152) B6.50 Closure Washers, (152) required, 1/3 each period
- (1) B6.50 Bushings, (1) required, only (1) bushing

Subject to Request for Alternate: 2ISI-006, (formally RR-IWB-13), - Perform examination of threads in RPV flange to the maximum extent practical.

Pressurizer: Items B6.60, B6.70, B6.80

- Not applicable to Nine Mile Point Nuclear Station.

Steam Generators: Items B6.90, B6.100, B6.110

- Not applicable to Nine Mile Point Nuclear Station.

Heat Exchanger: Items B6.120, B6.130, B6.140

- Not applicable to Nine Mile Point Nuclear Station.

Piping: Items B6.150, B6.160, B6.170

- Not applicable to Nine Mile Point Nuclear Station.

Pumps: Items B6.180, B6.190, B6.200

All bolts, studs, nuts, bushings, and flange surfaces. Examinations are applicable to two (2) Reactor Recirculation Pumps 2RCS*P1A and 2RCS*P1B.

Scope of Examination -.Examinations consist of volumetric examination of bolts and studs, visual (VT-1) examination of flange surface when connection is disassembled, and visual (VT-1) examination of nuts, bushings and washers.

Note: Pump bolting is limited to the one pump selected under Examination Category B-L-2. Bolting may be examined in place under tension, when the connection is disassembled, or when the bolting is removed.

Bushings and threads in base material of flanges are required to be examined only when the connections are disassembled. Bushings may be examined in place. Flange surface requires 1 inch annular surface of flange surrounding each stud hole.

- (32) B6.180 Studs, 16 studs per pump, (16) one pump required
- (2) B6.190 Flange surfaces, (1) per pump, one pump required
- (96) B6.200 Nuts, Bushings, and Washers, (48) per pump, one pump required

Valves: Items B6.210, B6.220, B6.230

All bolts, studs, nuts, bushings, and flange surfaces. Examinations applicable to Feedwater, Core Spray and Shutdown Cooling systems and are limited to valve selected under Category B-M-2.

Scope of Examination - Examinations consist of volumetric examination of bolts and studs, visual (VT-1) examination of flange surface when connection is disassembled, and visual (VT-1) examination of nuts, bushings and washers.

- (1) B6.210 Valve Bolts, (None) required
- (1) B6.220 Valve Flanges, (None) required
- (9) B6.230 Valve Nuts, Bushings, washers, (None) required

Note: Valve 2MSS*AOV7B was modified to use 2-1/2" diameter bonnet-to-body connection step studs in the first interval. The Step bolt is outside the B6.210 item description.

2.2.6 Category B-G-2, Pressure Retaining Bolting, 2 in. And Less in Diameter

Items: B7.10, B7.20, B7.30, B7.40, B7.50, B7.60, B7.70

Visual VT-1 examination each interval of all bolts, studs, and nuts

Scope of Examination -. Examinations are limited to bolting only when a connection is disassembled or bolting removed.

(a) For vessels, pumps, or valves, examination of bolting is required only when the component is examined under Examination Category B-B, B-L-2, or B-M-2. Examination of bolted connection is required only once during the interval.

(b) The examination of flange bolting in piping systems may be limited to one bolted connection among group of bolted connections that are similar in design, size, function, and service. Examination required only when a flange is disassembled. Examination of bolted connection is required only once

during the interval.

- (1) B7.10 Reactor Pressure Vessel, (1) required (2RPV-PB164)
- (0) B7.20 Pressurizer, Not applicable to Nine Mile Point Nuclear Station
- (0) B7.30 Steam Generator, Not applicable to Nine Mile Point Nuclear Station
- (0) B7.40 Heat Exchanger, Not applicable to Nine Mile Point Nuclear Station
- (28) B7.50 Piping Flange Bolting, (5) required
- (84) B7.70 Valves, (35) required
- (N/A) B7.80 CRD Housing [2]

2.2.7 Category B-J, Pressure Retaining Welds in Piping

Items: B9.11, B9.21, B9.22, B9.31, B9.32, B9.40

All dissimilar metal pipe welds, terminal ends, plus an additional number of piping welds so that 25% of all non-exempt circumferential and branch connection pipe welds are examined.

Note: All augmented Main Steam and Feedwater System welds, to the extent practical shall be used to satisfy the percentage requirements of Inspection Program B and the augmented requirements of NUREG 0313, Generic Letter 88-01, Supplement 1, shall also be used for satisfying the percentage requirements of Inspection Program B, to the extent practical. See Section 6.0 Augmented Inservice Inspections/Examinations of this document for details.

Scope of Examination - The selection and scheduling of examination items shall be in accordance with the Alternate Risk-Informed Inservice Inspection Program, Section 7 of this document.

- (636) B9.11 Circumferential welds, (None) required
- (219) B9.21 Circumferential welds, (None) required
- (N/A) B9.22 Circumferential welds of PWR High Pressure Safety Injection Systems, Not applicable to Nine Mile Point Nuclear Station
- (42) B9.31 Branch Conn. NPS 4" or Larger, (None) required
- (19) B9.32 Branch Conn. Less than NPS 4", (None) required
- (38) B9.40 Socket welds, (None) required

Subject to Request for Alternate: 2ISI-007, (formally RR-RI-ISI-2), - Perform examinations in accordance with Alternate Risk-Informed Inspection Program.

2.2.8 Category B-K, Welded Attachments For Vessels, Piping, Pumps and Valves

Items: B10.10, B10.20, B10.30, B10.40 Pressure Vessels, Piping, Pumps and Valve Welded Attachments

Scope of Examination - Surface examination to include essentially 100% of the length of the attachment weld at each integrally welded attachment subject to examination. For multiple vessels of similar design, function and service, only one welded attachment of only one of the multiple vessel shall be selected for examination, Limited to Reactor Pressure Vessel skirt weld and (6) stabilizers. For piping, pumps and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination under IWF-2510 shall be examined.

- (7) B10.10 Vessel Integral Attachments, (1) required

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2 10 CFR 50.55(b)(2)(M)(c)(xxi) requires Category B-G-2, Item B7.80 in 1995 Edition to be applicable to reused bolting only when using 2001 thru 2003 Addenda.

- (66) B10.20 Piping Integral Attachments, (8) required
- (0) B10.30 Pump Integral Attachments, Not applicable to Nine Mile Point Nuclear Station
- (0) B10.40 Valve Integral Attachments, Not applicable to Nine Mile Point Nuclear Station

2.2.9 Category B-L-1, Pressure Retaining Welds in Pump Casings, B-L-2, Pump Casings

Item: B12.10 Pump Casing Welds

Scope of Examination - 100% visual (VT-1) examination of all welds in one Pump in each group of pumps performing similar functions in the system.

- Not applicable to Nine Mile Point Nuclear Station Unit 2. The two (2) Reactor Recirculation Pumps do not have pump casing welds.

Item: B12.20 Pump Casing

Scope of Examination – Visual (VT-3) examination of the interior surfaces of one of the two (2) Reactor Recirculation Pumps, (2RCS*P1A and 2RCS*P1B), when disassembled for maintenance, repair, or volumetric examination. Examination of the internal pressure boundary shall include the internal pressure retaining surfaces made accessible for examination by disassembly. Pump to be identified when pump is disassembled.

- (2) B12.20 Recirc. Pumps (1) Pump Required

2.2.10 Category B-M-1, Pressure Retaining Welds in Valve Bodies, B-M-2, Valve Bodies

Items: B12.30 Valve Body Welds

- Not applicable to Nine Mile Point Nuclear Station Unit 2. Valves less than NPS 4 do not have any valve body welds.

Items: B12.40 Valve Body Welds NPS 4" or Larger

Scope of Examination - Volumetric examination to include essentially 100% of weld length. Examinations are limited to at least one valve within each group of valves that are the same size, constructional design, and manufacturing method, and perform similar functions in the system.

- Not applicable to Nine Mile Point Nuclear Station Unit 2. Valves greater than NPS 4 do not have any valve body welds

Item: B12.50 Valve Body Interior

Scope of Examination - Visual VT-3 examination of at least one valve in a group of valves that are the same size, constructional design (such as globe, gate, or check valves), and manufacturing method, and that perform similar functions in the system (such as containment isolation and system over pressure protection). Examinations are performed once per interval when disassembled for maintenance or repair. Valves to be identified when valve is disassembled.

- (78) B12.50 valves, (35) required

Table 2-1 below list all valves grouped by system, size, and type and subject to examination under B-M-2.

Table 2-1
VALVE GROUPINGS

GRP NO	Valve Number	SIZE	TYPE VALVE	B-G-1	B-G-2	B-M-2	B-M-1	Remarks	Selected Complete
V01	2CSH*MOV107	12.0"	Gate	N/A	VB100 7/8"	VBY102	N/A	1 Valve among a group of valves	Yes
V02	2CHS*AOV108	12.0"	Swing Check	N/A	VB500	VBY100	N/A	1 Valve among a group of valves	Yes
V03	2CSH*HCV120	12.0"	Gate	N/A	VB501 1-1/8"	VBY101	N/A	1 Valve among a group of valves	Yes
V04	2CSL*MOV104	12.0"	Gate	N/A	VB101 7/8"	VBY105	N/A	1 Valve among a group of valves	Yes
V05	2CSL*AOV101	12.0"	Swing Check	N/A	VB502	VBY103	N/A	1 Valve among a group of valves	Yes
V06	2CSL*HCV117	12.0"	Gate	N/A	VB503 1-1/8"	VBY104	N/A	1 Valve among a group of valves	Yes
V07	2FWS*MOV21A 2FWS*MOV21B	24.0"	Gate	N/A	VB504 1-1/8" VB505 1-1/8"	VBY110 VBY111	N/A	1 Valve among a group of valves	Yes (1)
V08	2FWS*AOV23A 2FWS*AOV23B 2FWS*V12A 2FWS*V12B	24.0"	Swing Check	N/A	VB506 .625" VB507 .625" VB508 .625" VB509 .625"	VBY106 VBY107 VBY112 VBY113	N/A	1 Valve among a group of valves	Yes (1)
V09	2FWS*HCV54A 2FWS*HCV54B	24.0"	Angle	N/A	VB-510 1-1/8" VB-511 1-1/8"	VBY108 VBY109	N/A	1 Valve among a group of valves	Yes (1)
V10	2ICS*MOV121 2ICS*MOV128	10.0"	Gate	N/A	VB-512 3/4" VB-513 3/4"	VBY116 VBY118	N/A	1 Valve among a group of valves	Yes (1)
V11	2ICS*AOV156 2ICS*AOV157	6.0"	Swing Check	N/A	VB514 .5" VB515 .5"	VBY114 VBY115	N/A	1 Valve among a group of valves	Yes (1)
V12	2ICS*MOV126	6.0"	Gate	N/A	VB-102 5/8"	VBY117	N/A	1 Valve among a group of valves	Yes
V13	2MSS*PSV120 2MSS*PSV121 2MSS*PSV122 2MSS*PSV123 2MSS*PSV124 2MSS*PSV125 2MSS*PSV126 2MSS*PSV127 2MSS*PSV128 2MSS*PSV129 2MSS*PSV130 2MSS*PSV131 2MSS*PSV132 2MSS*PSV133 2MSS*PSV134 2MSS*PSV135 2MSS*PSV136 2MSS*PSV137	26.0"	Safety Relief	N/A	VB123 1" VB124 1" VB125 1" VB126 1" VB127 1" VB128 1" VB129 1" VB130 1" VB131 1" VB132 1" VB133 1" VB134 1" VB135 1" VB136 1" VB137 1" VB138 1" VB139 1" VB140 1"	VBY130 VBY131 VBY132 VBY133 VBY134 VBY135 VBY136 VBY137 VBY138 VBY139 VBY140 VBY141 VBY142 VBY143 VBY144 VBY145 VBY146 VBY147	N/A	1 Valve among a group of valves	Yes (1)
V14	2MSS*AOV6A	26.0"	Y-	N/A	VB546 2"	VBY178	N/A	1 Valve among a	Yes (1)

Table 2-1
VALVE GROUPINGS

GRP NO.	Valve Number	SIZE	TYPE VALVE	B-G-1	B-G-2	B-M-2	B-M-1	Remarks	Selected */ Complete
	2MSS*AOV6B 2MSS*AOV6C 2MSS*AOV6D 2MSS*AOV7A 2MSS*AOV7B 2MSS*AOV7C 2MSS*AOV7D		Pattern Globe		VB547 2" VB548 2" VB549 2" VB550 2" N/A VB552 2" VB553 2"	VBY179 VBY180 VBY181 VBY182 VBY183 VBY184 VBY185		group of valves	
V15	2MSS*MOV111 2MSS*MOV112	6.0"	Globe	N/A	VB103 1" VB104 1"	VBY127 VBY128	N/A	1 Valve among a group of valves	Yes (1)
V16	2MSS*MOV207	6.0"	Globe	N/A	VB-524 7/8"	VBY129	N/A	1 Valve among a group of valves	Yes
V17	2RCS*MOV10A 2RCS*MOV10B	24.0"	Gate	N/A	VB113 1-1/4" VB114 1-1/4"	VBY150 VBY151	N/A	1 Valve among a group of valves	Yes (1)
V18	2RCS*MOV18A 2RCS*MOV18B	24.0"	Gate	N/A	VB115 1-3/4" VB116 1-3/4"	VBY152 VBY153	N/A	1 Valve among a group of valves	Yes (1)
V19	2RCS*HYV17A 2RCS*HYV17B	24.0"	Gate	N/A	VB105 1-5/8" VB107 1-3/8" VB109 1-3/4" VB111 1-5/8" VB106 1-5/8" VB108 1-3/8" VB110 1-3/4" VB112 1-5/8"	VBY148 VBY149	N/A	1 Valve among a group of valves	Yes (1)
V20	2RHS*HCV54A 2RHS*HCV54B	12.0"	Gate	N/A	VB525 1-1/8" VB526 1-1/8"	VBY163 VBY164	N/A	1 Valve among a group of valves	Yes (1)
V21	2RHS*AOV39A 2RHS*AOV39B	12.0"	Swing Check	N/A	VB527 .625" VB528 .625"	VBY157 VBY158	N/A	1 Valve among a group of valves	Yes (1)
V22	2RHS*MOV40A 2RHS*MOV40B	12.0"	Globe	N/A	VB529 7/8" VB530 7/8"	VBY171 VBY172	N/A	1 Valve among a group of valves	Yes (1)
V23	2RHS*MOV112 2RHS*MOV113	20.0"	Gate	N/A	VB531 7/8" VB532 7/8"	VBY166 VBY167	N/A	1 Valve among a group of valves	Yes (1)
V24	2RHS*HCV53A 2RHS*HCV53B	12.0"	Gate	N/A	VB533 1-1/8" VB534 1-1/8"	VBY160 VBY161	N/A	1 Valve among a group of valves	Yes (1)
V25	2RHS*HCV53C	12.0"	Gate	N/A	VB535 1-1/8"	VBY162	N/A	1 Valve among a group of valves	Yes
V26	2RHS*AOV16A 2RHS*AOV16B	12.0"	Swing Check	N/A	VB536 .625" VB537 .625"	VBY154 VBY155	N/A	1 Valve among a group of valves	Yes (1)
V27	2RHS*AOV16C	12.0"	Swing Check	N/A	VB538 .625"	VBY156	N/A	1 Valve among a group of valves	Yes
V28	2RHS*MOV24A 2RHS*MOV24B	12.0"	Gate	N/A	VB539 1" VB540 1"	VBY168 VBY169	N/A	1 Valve among a group of valves	Yes (1)
V29	2RHS*MOV24C	12.0"	Gate	N/A	VB541 1"	VBY170	N/A	1 Valve among a group of valves	Yes

Table 2-1
VALVE GROUPINGS

GRP NO.	Valve Number	SIZE	TYPE VALVE	B-G-1	B-G-2	B-M-2	B-M-1	Remarks	Selected / Complete
V30	2RHS*V143	6.0"	Swing Check	N/A	VB542 5/8"	VBY173	N/A	1 Valve among a group of valves	Yes
V31	2RHS*MOV104	6.0"	Globe	N/A	VB543 7/8"	VBY165	N/A	1 Valve among a group of valves	Yes
V32	2RHS*HCV131	12.0"	Gate	N/A	VB544 1-1/8"	VBY159	N/A	1 Valve among a group of valves	Yes
V33	**2WCS*MOV102 2WCS*MOV112	8.0"	Globe	N/A	VB118 1-3/8" VB122 1-3/8"	VBY174 VBY176	N/A	1 Valve among a group of valves	Yes (1)
V34	2WCS*MOV103	8.0"	Globe	N/A	VB119 1-3/8"	VBY175	N/A	1 Valve among a group of valves	Yes
V35	2WCS*MOV200	8.0"	Globe	N/A	VB545 1-1/8"	VBY177	N/A	1 Valve among a group of valves	Yes

* Required examinations that have been completed
** Valve was replaced
Yes – Selected
Yes (1) – Only one in group selected

2.2.11 Category B-N-1, Interior of Reactor Vessel, B-N-2, Welded Core Support Structures and Interior Attachments to Reactor Vessels, B-N-3, Removable Core Support Structures.

Item: B13.10 Vessel Interior

Scope of Examination - Visual VT-3 examination of accessible areas (areas above and below the reactor core made accessible for examination by removal of components during normal refueling). Accessible areas include but not limited to:

(**Above the Reactor Core**); Top Guide (Core Grid), Shroud Head and Steam Separator Assembly, Steam Dryer Assembly, Feedwater Sparger Assembly, Core Spray Lines and Sparger Assembly, Upper Core Grid and jet pumps;

(**Below the Reactor Core**); Core Plate, Core Differential Pressure and Standby Liquid Control Line, Fuel Support Pieces, Control Rod Guide Tubes and Housings, In-Core Flux Monitor Assemblies and Lower Core Grid;

In addition, also includes the Closure Head Interior surface, RPV Nozzle Surface Entrance. Examinations are performed once each inspection period.

- (114) B13.10 Accessible Areas, once each period

Items: B13.20 Interior Attachments Within Beltline Region

Reactor Vessel (BWR)

Scope of Examination - Visual VT-1 examination of accessible welds of interior attachments within the Beltline region, to include the Lower Surveillance Specimen Holders, and jet pump brackets (once per

Scope of Examination - Visual VT-1 examination of accessible welds of interior attachments within the Beltline region, to include the Lower Surveillance Specimen Holders, and jet pump brackets (once per interval).

- (2) B13.20 Interior Attachments, (2) required

Item: B13.30 Interior Attachments - Beyond Beltline Region

Scope of Examination - Visual VT-3 examination of accessible welds of interior attachments beyond the Beltline region, to include the Core Spray Sparger Brackets, Conical Support to RPV weld, Dryer Support Brackets, Guide Rod Support Brackets, Feedwater Sparger Brackets, Shroud Support Stubs, Steam Dryer Hold Down Brackets, and Upper Surveillance Specimen Holders. (once per interval).

- (9) B13.30 Interior Attachments, (9) required

Item: B13.40 Core Support Structure

Scope of Examination - Visual VT-3 examination of accessible surfaces of core support structures, to include the Top Guide, Core Shroud, Shroud Support Stubs, Core Plate, Shroud Ring to Conical Support weld, Upper Core Grid, Integrally Welded Core Support Structure and Lower Core Grid. (once per interval).

- (4) B13.40 Accessible surfaces, (4) required

Item: B13.50, B13.60, B13.70 RPV (PWR's)

Reactor Vessel (PWR)

- Not applicable to Nine Mile Point Nuclear Station.

2.2.12 Category B-O, Pressure Retaining Welds in Control Rod Housings

There are forty (40) peripheral CRD housings, and each housing has two (2) welds.

Item: B14.10 Welds in CRD Housings

Scope of Examination - Volumetric or surface examination of 10% of the peripheral CRD housings. Perform partial examination of 10% of the welds plus six (6) additional welds, such that the aggregate total is greater than or equal to eight (8) full examinations.

- (80) (40) Peripheral CRD Housings, (4) Peripheral CRD Housings (10%) required

Subject to Request for Alternate: 2ISI-005 (Formally RR-IWB-1), - *Examine a total of five* (5) CRD Housings, eight (8) welds to be examined.

2.2.13 Category B-P, All Pressure Retaining Components

Pressure Retaining Components: Items B15.10

Scope of Examination – Perform visual (VT-2) examination in conjunction with a system leakage test, each refueling outage prior to plant startup following reactor refueling outage. System pressure tests are conducted

2.2.14 Category B-Q, Steam Generator Tubing

Item: B16.10, B16.20 - Steam Generator Tubing in Straight Tube and U-Tube Design

- Not applicable to Nine Mile Point Nuclear Station.

2.3 Successive Inspections

The sequence of component examinations which was established during the first inspection interval shall be repeated during the third inspection interval, to the extent practical.

In accordance with IWB-2420(b), one weld examined during the first inspection interval was evaluated in accordance with IWB-3142.4, and were determined by analysis to qualify as acceptable for continued service. The areas containing these flaw indications were reexamination during the second inspection interval. Applicable welds are uniquely identified within the in-service inspection plan Tables.

(a) 2RPV-KC32, A 10.0" stainless steel High Pressure Core Spray Nozzle Safe-End to Safe-End Extension weld.

This weld was upgraded from IGSCC Category F to IGSCC Category E pursuant to USNRC approval, dated February 12, 1998. Weld 2RPV-KC32 was examined during RFO-6, RFO-8 and RFO-10 with no detectable growth indicated from the previous examinations. The reexaminations revealed that the flaws remain essentially unchanged for the three successive periods and therefore shall revert to the original schedule of successive inspections. This weld identified a planar flaw in the weld that measured 38% thru wall. Mechanical Stress Improved Process (MSIP) was performed in 1990. NMPNS committed to the NRC to perform a weld overlay if the thru wall dimensions reach 41%.

(b) 2RPV-KB20, Examinations conducted during RFO-6 (05/05/98 to 07/05/98) identified unacceptable indications in excess of ASME Section XI acceptance criteria. DER 2-98-1713 was issued to document the deficiency. Fracture Mechanics Analysis was performed (File NMP2-12Q-401) and conditionally accepted for one fuel cycle. This analysis was granted under USNRC Safety Evaluation dated 06/25/98.

Weld 2RPV-KB20 was re-classified to IGSCC Category F and was scheduled for re-examination every refueling outage. By letter dated 03/07/00, NMPNS proposed an alternate to ASME Code Section XI Repair requirements. The proposal consisted of use of ASME Code Case N-504-1, Alternative Rules for Repair of Class 1, 2, 3 Austenitic Stainless Steel Piping, and Code Case N-638, Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW (Gas Tungsten Arc Welding) Temper bead Technique with modifications to perform weld overlay repair of flawed Nozzle-to-Safe-End welds in Recirculation and Feedwater piping. USNRC Safety Evaluation, TAC MA8352 dated 03/30/00 Granted its use. During RFO-7 (03/00 to 04/00), weld 2RPV-KB20 was repaired by full structural weld overlay. The weld was re-identified to 2RPV-KB20-OL and re-classified as IGSCC Category E.

2RPV-KB20-OL was re-examined during RFO-09 (03/15/04 to 04/23/04) and the original flaws located below the outer 25% and welding discontinuities were compared against the previous results with no significant change noted.

Note: Code Case N-624, modification of the sequence of examinations established during the first interval. (See Appendix I for requirements)

2.4 Aging Management Program

The License Renewal Rule (10 CFR 54) required NMPNS to be able to demonstrate that the effects of aging

will be adequately managed so that the intended function(s) of each structure and component (SC) will be maintained consistent with the Current License Basis (CLB) for the period of extended operation.

This paragraph has been added to the updated in-service inspection program to identify that this Section of the existing inspection plan and schedule was compared against the Generic Aging Lessons Learned (GALL), NUREG-1801, Revision 0, Aging Management Program (AMP) XI.M1, ASME Section XI In-service Inspection, Subsections IWB, IWC, and IWD, and has been credited for aging management.

This paragraph serves as a basis capture statement only, as during the extended period of operation, the inspection plan and schedule will be re-written to incorporate the latest Edition and Addenda as referenced in paragraph (b)(2) of Title 10, Part 50, Section 55a, Code of Federal Regulations.

SECTION 3 - ASME CODE CLASS 2 SYSTEMS/COMPONENTS

3.0 ASME CODE CLASS 2 SYSTEMS/COMPONENTS

The ASME Code Class 2 System Boundaries were developed based upon the requirements of Regulatory Guide 1.26 and the NMP2 USAR.

The ASME Code Class 2 components and systems (including supports) subject to examination and testing are described in detail below:

Note : Systems subject to examination requirements of this section are identified in the Table below:

ASME Code Class 1 Systems	System Identification
Auxiliary Steam (ASS)	001
Main Steam System (MSS)	013
Reactor Core Isolation Cooling (ICS)	007
Reactor Vessel Instrumentation System (ISC)	008
Residual Heat Removal System (RHS)	014
High Pressure Core Spray System (CSH)	002
Low Pressure Core Spray (CSL)	003
Control Rod Drive Hydraulic System (RDS)	010

Refer to Appendix B for Section XI Summary Table Details.

3.1 ASME Code Exemptions

IWC-1220 - The following components or parts of components are exempted from the volumetric and surface examination requirements of IWC-2500;

3.1.1 IWC-1221 - Components within RHR, ECC and CHR Systems or portions of systems.

(a) For systems, except high pressure safety injection systems in pressurized water reactor plants:

(1) piping NPS 4 (DN 100) and smaller

(2) vessels, pumps, and valves and their connections in piping NPS 4 (DN 100) and smaller

(b) For high pressure safety injection systems in pressurized water reactor plants:

(1) piping NPS 1 ½ (DN 40) and smaller

(2) vessels, pumps, and valves and their connections in piping NPS 1 ½ (DN 40) and smaller

(c) Vessels, piping, pumps, valves, other components and component connections of any size in statically pressurized, passive (i.e., no pumps) safety injection systems of pressurized water reactor plants.

(d) 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.

3.1.2 IWC-1222 - Components within systems or portions of systems other than RHR, ECC and CHR Systems

(a) For systems, except auxiliary feedwater systems in pressurized water reactor plants:

(1) piping NPS 4 (DN 100) and smaller

(2) vessels, pumps, and valves and their connections in piping NPS 4 (DN 100) and smaller

(b) For auxiliary feedwater systems in pressurized water reactor plants:

(1) piping NPS 1 ½ (DN 40) and smaller

(2) vessels, pumps, and valves and their connections in piping NPS 1 ½ DN 40) and smaller

(c) Vessels, piping, pumps, valves, other components, and component 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 (1900 kPa) and at a temperature equal to or less than 200 degrees F (93 degrees C).

(d) 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.

3.1.3 IWC-1223 – Inaccessible Welds

Welds or portions of welds that are inaccessible due to being encased in concrete, buried underground, located inside a penetration, or encapsulated by guard pipe.

3.1.4 Specific Exemptions

1. Standby Gas Treatment System (GTS)

As stated in the USAR Table 3.2.1, this piping, although designed ASME Code Class 2 requirements, is actually intended to fulfill the function of duct work. Therefore, the safety class portion of this system is Class 2 exempt.

2. Class 2 Pressure/Temperature Exemptions

Table 3.1.4-1 provides a listing of lines and system portions where pressure/temperature exemptions are used.

TABLE 3 -1
CLASS 2 SYSTEM PORTIONS EXEMPT DUE TO OPERATING TEMPERATURE AND PRESSURE

System	P&ID	Press *	Temp	Description	Reference **
Reactor Core Isolation Cooling (ICS)	35A	150	170	ICS pump suction from suppression pool	PDP 27-6 Rev. 6
	35B	14.7	104	Rupture disc to atmosphere	
	35D	26.3	100	ICS pump suction piping	
Containment Purge (CPS)	61A	0.8	110	Purge inlets to suppression chamber and drywell	PDP 22-23 Rev. 3
		2	135	Purge outlet from suppression chamber and drywell	
Reactor Building Equipment & Floor Drains (DFR)	63C	3.3	150	Containment Drain Header	PDP 26-3 Rev. 4
	63E	3.3	150	Drywell to Reactor Building Drain Header	
DBA Hydrogen Recombiner (HCS)	62B	235	160	Outlet of water spray coolers	PDP 27-13 Rev. 5

* All pressures are in pounds per square inch absolute (psia); temperatures are in degrees Fahrenheit
** The ASME III N-5 Data Reports are predicated, in part, on Pipe Stress Data Packages (PDPs).

3.2 Component/Piping Examination Development

A narrative discussion of Class 2 components subject to examination and testing are described in detail below:

3.2.1 Category C-A, Pressure Retaining Welds in Pressure Vessels

This category is applicable to the Residual Heat Removal Heat Exchanger 2RHS*E1A and 2RHS*E1B

Item C1.10 - Shell Circumferential Welds

Scope of Examination: 100% of all welds at gross structural discontinuities only. The examinations are limited to one vessel among a group of vessels.

- (2) C1.10 Shell Circ. Welds, (1) weld required

Item C1.20 - Head Circumferential Welds

Scope of examination: 100% of head-to-shell welds, (limited to one vessel of multiple vessels). .

- (2) C1.20 Shell Circ. Welds, (1) weld required

Item C1.30 - Tubesheet to Shell Welds

Scope of examination: 100% of Tubesheet to shell welds (limited to one vessel of multiple vessels).

- Not applicable to Nine Mile Point Nuclear Station

3.2.2 Category C-B, Pressure Retaining Nozzle Welds in Vessels

This category is applicable to the Residual Heat Removal Heat Exchanger 2RHS*E1A and 2RHS*E1B

Item C2.10 and C2.11 Nozzles in Vessels < ½ in. Nominal Thickness

Scope of examination: All nozzles at terminal ends of piping runs.

- Not applicable to Nine Mile Point Nuclear Station

Item C2.20 - Nozzles Without Reinforcing Plate in Vessels > ½ in. Nominal Thickness

- Not applicable to Nine Mile Point Nuclear Station.

Item C2.21 - Nozzle to Shell or Head Welds

Scope of Examination - All nozzles at terminal ends of piping runs (limited to one vessel of multiple vessels). Includes only those piping runs selected for examination under Examination Category C-F.

- (4) C2.21 Nozzle to Shell or Head Welds, (2) required

Item C2.22 - Nozzle Inside Radius Section

Scope of Examination - All nozzles at terminal ends of piping runs (limited to one vessel of multiple vessels).

- (4) C2.22 Nozzle Inside Radius Section, (2) welds required

Item C2.31 – Nozzles with Reinforcing Plate in vessel > ½ in., Reinforcing Plate Welds to Nozzle and Vessel

Scope of Examination - All nozzles at terminal ends of piping runs (limited to one vessel of multiple vessels).

- Not applicable to Nine Mile Point Nuclear Station.

Item C2.32 Nozzle to Shell (Nozzle to Head or Nozzle to Nozzle) Welds When Inside of Vessel is Accessible

- Not applicable to Nine Mile Point Nuclear Station.

Item C2.33 - Nozzle to Shell (Nozzle to Head or Nozzle to Nozzle) Welds When Inside of Vessel is Inaccessible

Scope of Examination - Visual VT-2 of tell tale hole in reinforcing plates (limited to one vessel of multiple vessels). Examination performed in accordance with system pressure test program.

- Not applicable to Nine Mile Point Nuclear Station

3.2.3 Category C-C, Welded Attachments for Vessels, Piping, Pumps & Valves

Examination includes essentially 100% of the length of the attachment weld at each attachment subject to examination.

Item C3.10 - Pressure Vessels, Welded Attachments

Scope of Examination - 100% of the length of the attachment weld of only one integrally welded attachment of only one of the multiple vessels selected. Applicable to the Heat Exchangers 014-E1A and 014-E1B.

- (2) C3.10 Welded Attachments, (1) required

Item C3.20 - Piping, Welded Attachments

Scope of Examination - 100% of the length of the attachment weld of 10% of the welded attachments associated with the component supports selected for examination under IWF-2510 is required.

- (70) Welded Attachments, (7) required

Item C3.30 - Pumps, Welded Attachments

Scope of Examination - 100% of the length of the attachment weld of 10% of the welded attachments associated with the component supports selected for examination under IWF-2510 is required. There are six (6) nonexempt Class 2 pumps (2CSH*P1, 2CSL*P1, 2ICS*P1, 2RHS*P1A, 2RHS*P1B and 2RHS*P1C) applicable to this item.

- (5) C3.30 Shell Circ. Welds, (1) welds required

Subject to Request for Relief: 2ISI-009, (Formally RR-IWC-1): Perform surface examinations on the welded attachments to the maximum extent possible when made accessible.

Item C3.40 - Valves, Welded Attachments

Scope of Examination - 100% of the length of the attachment weld of 10% of the welded attachments associated with the component supports selected for examination under IWF-2510 is required.

- Not applicable to Nine Mile Point Nuclear Station

3.2.4 Category C-D, Pressure Retaining Bolting > 2" in Diameter

Items C4.10 Pressure Vessel

Scope of Examination – Volumetric examination of 100% bolts and studs at each bolted connection of components required to be inspected. The examination of bolting for vessels may be performed on one vessel in a group of vessels.

- Not applicable to Nine Mile Point Nuclear Station.

Items C4.20 Piping

- Not applicable to Nine Mile Point Nuclear Station

Items C4.30 Pumps

This item applicable to Low pressure Core Spray Pump 2CSL*P1.

Scope of Examination – Volumetric examination of 100% bolts and studs at each bolted connection of components required to be inspected. The examination of bolting for pumps may be performed on one pump in a group of pumps.

- (1) C4.30 Pump studs, (1) required

Items C4.40 Valves

- Not applicable to Nine Mile Point Nuclear Station

3.2.5 Category C-F-1, Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping

Items C5.10, C5.11, C5.20, C5.21, C5.22, C5.30, C5.40, C5.41

Welds were initially selected for examination, included 7.5%, but not less than 28 welds, of all austenitic stainless steel of high alloy welds not exempted by IWC-1220.

- (45) C5.11 Circ. Welds, (None) required
- (N/A) C5.12 Long. Welds, (N/A) required
- (N/A) C5.21 Circ. Welds, Not applicable to NMP2
- (N/A) C5.22 Long. Welds, Not applicable to NMP2
- (N/A) C5.30 Socket Welds, Not applicable to NMP2
- (N/A) C5.41 Circ. Welds, Not applicable to NMP2

Note: Only 17 circumferential welds were available for examination, 12 were excluded components, per Table IWC-2500-1, and 20 circumferential welds were inaccessible.

Scope of Examination - The selection and scheduling of examination items shall be in accordance with the Alternate Risk-Informed Inservice Inspection Program, Section 7 of this document.

Subject to Request for Relief: 2ISI-007 - Perform examinations in accordance with Alternate Risk-Informed Inservice Inspection Program.

3.2.6 Category C-F-2, Pressure Retaining Welds in Carbon or Low Alloy Steel Piping

Items C5.50, C5.51, C5.60, C5.61, C5.70, C5.80, C5.81

Welds initially selected for examination, included 7.5%, but not less than 28 welds, of all carbon and low alloy steel welds not exempted by IWC-1220.

-	(1395) C5.51, Circ. Welds, (None) required
-	(2) C5.61, Circ. Welds, (None) required
-	(12) C5.70, Socket Welds, (None) required
-	(34) C5.81, Circ. Welds, (None) required
Non-Exempt Welds	(1443), Includes Excluded Welds

(1443) x 7.5% = (109) minimum, (None) required

Scope of Examination - The selection and scheduling of examination items shall be in accordance with the Alternate Risk-Informed Inservice Inspection Program, Section 7 of this document.

Subject to Request for Relief: 2ISI-007: Perform examinations in accordance with Alternative Risk-Informed Inspection Program.

3.2.7 Category C-G, Pressure Retaining Welds in Pumps and Valves

Items C6.10 & C6.20

Scope of Examination - 100% of welds in all components in each piping run examined under Examination Category C-F. This Category is applicable to the 2CSH*P1, 2CSL*P1, 2RHS*P1A, 2RHS*P1B, 2RHS*P1C and 2ICS*P1 Pumps. In the case of multiple pumps and valves of similar design, size, function, and service, the examination of only one pump and one valve among each group of multiple pumps and valves is required. The examination may be performed from either the inside or outside surface of the component.

- (41) C6.10 Pump Casing Welds, (33) required
- (32) C6.20 Valve Casing Welds, (9) required

Subject to Request for Relief: 2ISI-009, (Formally RR-IWC-1) – Perform surface examinations on welds of pumps that become accessible when disassembled for maintenance.

Subject to Request for Relief: 2ISI-008, (Formally RR-IWC-5, Part 3: - Perform surface examinations on valve body welds to the maximum extent possible.

3.2.8 Category C-H, All Pressure Retaining Components

Items C7.10, C7.20, C7.30, C7.40, C7.50, C7.60, C7.70 & C7.80

Scope of Examination – System leakage tests are conducted on all Class 2 pressure retaining boundaries each inspection period in accordance with the Nine Mile Point Unit 2 System Pressure Testing Program.

3.2.9 Class 2, Multiple Equivalency Tables

The Residual Heat Removal Heat Exchangers are the only Class 2 nonexempt pressure vessels at NMP2.

TABLE 3.2-1
Class 2, Multiple Vessel Equivalency Table

Group	Vessel ID	ISI-Com Drawing	C-A	C-B	C-C	C-D	Selected / Complete
HE01	2RHS*E1A	091	HW100A HW101A	HW102A HW103A HW104A HW105A	N/A	N/A	Yes
	2RHS*E1B	092	HW100B	HW102B	N/A	N/A	No

TABLE 3.2-1
Class 2, Multiple Vessel Equivalency Table

Group	Vessel ID	ISI-Com Drawing	C-A	C-B	C-C	C-D	Selected / Complete
			HW101B	HW103B HW104B HW105B			

* Completed examinations

TABLE 3.2-2
CLASS 2 MULTIPLE PUMP EQUIVALENCY TABLE

Group	Pump ID	ISI-Com Drawing	C-C	C-D	C-G	Selected / Completed
2P01	2CSH*P1	027	N/A	N/A	PW203 PW206 PW207 PW208 PW209 PW210 PW212 PW217 PW218 PW219	Yes
2P02	2CSL*P1	027	PW319	PPB100	PW306 PW310 PW311 PW312 PW314 PW315 PW316	Yes
2P03	2ICS*P1	013	PW400 PW401 PW402 PW403	N/A	N/A	Yes
2P04	2RHS*P1A	026	PW121A	N/A	PW108A PW110A PW111A PW112A PW113A PW115A PW116A PW118A	Yes
	2RHS*P1B	026	PW121B	N/A	PW108B PW110B PW111B PW112B PW113B PW115B PW116B PW118B	No
2P05	2RHS*P1C	026	PW121C	N/A	PW108C PW110C PW111C PW112C	Yes

TABLE 3.2-2
CLASS 2 MULTIPLE PUMP EQUIVALENCY TABLE

Group	Pump ID	ISI-Com Drawing	C-C	C-D	C-G	Selected / Completed
					PW113C PW115C PW116C PW118C	

* Completed examinations

TABLE 3.2-3
CLASS 2 MULTIPLE VALVE EQUIVALENCY TABLE

Group	Valve ID	Piping ISO	Design Type	ISI-Com Drawing	C-G	Selected / Completed
2VG01	2CSL*MOV112	26-01	Butterfly	020	(3) VWMOV112-C, D and LW	Yes
2VG02	2CSL*V121	26-01	Butterfly	057	(3) VWV121-C, D & LW	Yes
2VG03	2CSL*HCV118	26-02	Butterfly	019	(3) VWHCV118-C, D and LW	Yes
2VG04	2CSL*HCV119	26-02	Butterfly	019	(3) VWHCV119-C, D & LW	Yes
2VG05	2RHS*MOV8A	66-14	Butterfly	019	(2) VWMOV8A-C & D	Yes
	2RHS*MOV8B	66-29	Butterfly	019	(2) VWMOV8B-C & D	No
2VG06	2RHS*MOV1C	66-22	Butterfly	020	(3) VWMOV1C-C, D & LW	Yes
2VG07	2RHS*V376	66-13	Butterfly	057	(3) VWV376-C, D & LW	Yes
	2RHS*V377	66-23	Butterfly	057	(3) VWV377-C, D & LW	No
2VG08	2RHS*V378	66-22	Butterfly	057	(3) VWV378-C, D & LW	Yes
2VG09	2RHS*MOV2A	66-13	Butterfly	019	(2) VWMOV2A-C & D	Yes
	2RHS*MOV2B	66-23	Butterfly	019	(2) VWMOV2B-C & D	No

* Completed examinations

3.3 Successive Inspections

The sequence of component examinations established during the first inspection interval will be repeated during the second inspection interval, to the extent practical.

Note: Code Case N-624, modification of the sequence of examinations established during the first interval. (See Appendix I for requirements)

3.4 Aging Management Program

The License Renewal Rule (10 CFR 54) required NMPNS to be able to demonstrate that the effects of aging will be adequately managed so that the intended function(s) of each structure and component (SC) will be maintained consistent with the Current License Basis (CLB) for the period of extended operation.

This paragraph has been added to the updated in-service inspection program to identify that this Section of the existing inspection plan and schedule was compared against the Generic Aging Lessons Learned (GALL), NUREG-1801, Revision 0, Aging Management Program (AMP) XI.M1, ASME Section XI In-service Inspection Subsections IWB, IWC, and IWD, and has been credited for aging management as part of the NMPNS License renewal Application (LRA).

This paragraph serves as a basis capture statement only, as during the extended period of operation, the inspection plan and schedule will be re-written to incorporate the latest Edition and Addenda as referenced in paragraph (b)(2) of Title 10, Part 50, Section 55a, Code of Federal Regulations.

SECTION 4 - ASME CODE CLASS 3 SYSTEMS/COMPONENTS

4.0 CLASS 3 SYSTEMS/COMPONENTS

The ASME Code Class 3 system boundaries subject to examination and testing were developed based upon the requirements of Regulatory Guide 1.26, and the NMP2 USAR. The ASME Code Class 3 components and systems subject to examination and testing are described in detail below:

Note: Systems subject to examination requirements of this section are identified in the Table below.

ASME Code Class 3 Systems	System Identification
Reactor Water Cleanup System (WCS)	012
Residual Heat Removal System (RHS)	014
Diesel Generator Air Start System (EGA)	015
Spent Fuel Pool Cooling System (SFC)	016
Service Water System (SWP)	017
Service Water System (SWQ)	018
Service Water System (SWR)	019

Refer to Appendix C for Section XI Summary Table Details.

4.1 ASME Code Exemptions Employed

4.1.1 IWD-1220

The following components or portions of components are exempted from the VT-1 visual examination requirements of IWD-2500:

(a) Piping NPS 4 (DN100) and smaller;

(b) Vessels, pumps, and valves and their connections to piping NPS 4 (DN100) and smaller;

(c) Components that operate at a pressure of 275 psig (1900 kpa) or less and at a temperature of 200° F (93°C) or less 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;

(d) Welds or portions of welds that are inaccessible due to being encased in concrete, buried underground, located inside a penetration, or encapsulated by guard pipe.

[1] In piping is defined as having a cumulative inlet and a cumulative outlet pipe cross-sectional area neither of which exceeds the nominal OD cross-sectional area of the designed size

4.2 Component/System Examination Development

A narrative discussion of Class 3 components subject to examination and testing are described in detail below:

4.2.1 Category D-A Welded Attachments for Vessels, Piping, Pumps and Valves

Selected samples of welded attachments shall be examined each inspection interval. All welded attachments selected for examination shall be those most subject to corrosion, as determined by NMPNS.

For multiple vessels of similar design, function and service, the welded attachments of only one of the multiple vessels shall be selected for examination.

For welded attachments of piping, pumps, and valves, a 10% sample shall be selected for examination. This percentage sample shall be proportional to the total number of nonexempt welded attachments connected to piping, pumps, and valves in each system subject to these examinations.

Item D1.10 - Pressure Vessel Welded Attachments

Scope of Examination - Perform Visual (VT-1) examination of 100% of the weld length of each welded attachments required each interval.

- Not applicable to Nine Mile Point Nuclear Station

Item D1.20 - Piping Welded Attachments

Scope of Examination - Perform Visual (VT-1) examination of 100% of the weld length of each welded attachment required each interval.

- (238) D1.20 Integral Attachments, (24) required

Item D1.30 - Pumps Welded Attachments

Scope of Examination - Perform Visual (VT-1) examination of 100% of the weld length of each welded attachment required each interval.

- Not applicable to Nine Mile Point Nuclear Station

Item D1.40 - Valve Welded Attachments

Scope of Examination - Perform Visual (VT-1) examination of 100% of the weld length of each welded attachment required each interval.

- Not applicable to Nine Mile Point Nuclear Station

4.2.2 Category D-B, All Pressure Retaining Components

The pressure retaining components within the boundary of each system are visually examined (VT-2) in conjunction with a system leakage test each inspection period in accordance with the Nine Mile Point Nuclear Station Unit 2 System Pressure Test Program.

Item D2.10 – Pressure Retaining Components

Scope of Examination/Testing – Perform visual (VT-2) examination in conjunction with a system leakage test each inspection period.

4.3 Successive Inspections

The sequence of component examinations which was established during the first inspection interval will be repeated during the Third Inspection Interval, to the extent practical.

Note: Code Case N-624, modification of the sequence of examinations established during the first interval. (See Appendix I for requirements)

4.4 Aging Management Program

The License Renewal Rule (10 CFR 54) required NMPNS to be able to demonstrate that the effects of aging will be adequately managed so that the intended function(s) of each structure and component (SC) will be maintained consistent with the Current License Basis (CLB) for the period of extended operation.

This paragraph has been added to the existing in-service inspection program to identify that Section 4 of the existing inspection plan and schedule was compared against the Generic Aging Lessons Learned (GALL), NUREG-1801, Revision 0, Aging Management Program (AMP) XI.M1, ASME Section XI In-service Inspection, Subsections IWB, IWC, and IWD, and has been credited for aging management as part of the NMP License Renewal Application (LRA).

This paragraph serves as a basis capture statement only, as during the extended period of operation, the inspection plan and schedule will be re-written to incorporate the latest Edition and Addenda as referenced in paragraph (b)(2) of Title 10, Part 50, Section 55a, Code of Federal Regulations.

SECTION 5 - ASME CODE CLASS 1, 2 AND 3 COMPONENT SUPPORTS

5.0 CLASS 1, 2 AND 3 COMPONENT SUPPORTS - IWF

Component supports selected for examination shall be the supports of those components that are required to be examined under IWB, IWC and IWD. Class 1, 2 and 3 supports receive a Visual (VT-3) examination to determine their general mechanical and structural condition, and when required, conditions relating to their operability. (Refer to Appendix D for Section XI Summary Table details).

5.1 Supports Exempt From Examination

Supports exempt from the examination requirements of IWF-2000 are those connected to piping and other items exempted from volumetric, surface, or VT-1 or VT-3 visual examination by IWB-1220, IWC-1220, IWD-1220, and IWE-1220.See Sections 2, 3 and 4 of this document for exemptions.

a. In addition, portions of supports that are inaccessible by being encased in concrete, buried underground, or encapsulated by guard pipe are also exempt from the examination requirements of IWF-2000.

b. NMPNS has determined that a support that does not fully meet the definition of a component support, as defined within ASME Section XI, Article IWA-9000, Glossary definition for Component Support, is exempt for examination. Pipe whip restraints, insulation lugs, or unused pipe supports, which do not provide structural stability or support the weight of the pipe, are exempt.

5.2 Support Examination Development

A narrative discussion of Class 1, 2 and 3 component supports subject to examination are described in detail below:

In order to assure that a representative sample of supports within each ASME Code Class is examined, (Code Examination Category F-A, Examination Item Numbers F1.10 Class 1, F1.20 Class 2, F1.30 Class 3, and F1.40 other than piping), selection was based on Class, System and Type, to the extent practical [1].

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[1] All component supports subject to examination have been classified (a, b, c, d, etc.), to the extent practical. As these supports could be classified by one or more of the suffixes for the same support, only one suffix was selected. These classifications are identified in the 10-year inspection Tables.

Table 5-1
CATEGORY F-A SELECTION PROCESS

Exam Item No.	ASME Code Class	Applicable System			Type of Supports
		Class 1	Class 2	Class 3	
F1.10	Code Class 1	CSH CSL DER FWS ICS MSS RCS RHS SLS WCS	ASS CSH CSL ICS MSS RDS RHS	EGA SFC SWP SWQ SWR RHS WCS	A. Supports such as one directional rod hangers B. Supports such as Multidirectional restraints C. Supports that allow thermal movement, springs
F1.20	Code Class 2				
F1.30	Code Class 3				
F1.40	Other than piping				

5.2.1 Examination Category F-A Supports

Item F1.10 - Class 1 Piping Supports

Scope of Examination – Visual (VT-3) examination of 25% of all non-exempt Class 1 piping supports.

- (259) F1.10 Supports, (65) required

Note: The total percentage sample (25% or 65 of Class 1 piping supports) shall be comprised of supports from each system, where the individual sample sizes are proportional to the total number of non-exempt supports of each type and function within each system and distributed and selected as follows:

(a) For piping, pumps and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination;

(b) To the extent practical, the same supports selected for examination during the first inspection interval shall be examined during each successive inspection interval.

(c) Additional selections as may be determined to assure that a representative sample of each type and function within each system is examined.

Item F1.20 - Class 2 Piping Supports

Scope of Examination – Visual (VT-3) examination of 15% of all non-exempt Class 2 piping supports.

- (541) F1.20 Supports, (82) required

Note: The total percentage sample (15% or 82 of Class 2 piping supports) shall be comprised of supports from each system, where the individual sample sizes are proportional to the total number of non-exempt supports of each type and function within each system and distributed and selected as follows:

(a) For piping, pumps and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination;

(b) To the extent practical, the same supports selected for examination during the first inspection interval shall be examined during each successive inspection interval.

(c) Additional selections as may be determined to assure that a representative sample of each type and function within each system is examined.

Item F1.30 - Class 3 Piping Supports

Scope of Examination - Visual (VT-3) examination of 10% of all non-exempt Class 3 piping supports

- (766) F1.30 Supports, (77) required

Note: The total percentage sample (10% or 77 of Class 3 supports) shall be comprised of supports from each system, where the individual sample sizes are proportional to the total number of non-exempt supports of each type and function within each system and distributed and selected as follows:

(a) For piping, pumps and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination;

(b) To the extent practical, the same supports selected for examination during the first inspection interval shall be examined during each successive inspection interval.

(c) Additional selections as may be determined to assure that a representative sample of each type and function within each system is examined.

Item F1.40 - Supports Other than Piping Supports (Class 1, 2, 3 and MC)

Scope of Examination - Visual (VT-3) examination of 100% of all non-exempt Supports, other than piping supports.

- (37) F1.40 Supports, (21) required

Note: For multiple components other than piping, within a system of similar design, function, and service, the supports of only one of the multiple components are required to be examined.

The recording of Hot or Cold positions will be performed in conjunction with the VT-3 examination.

5.3 Snubber Examination and Performance Testing Program

The Nine Mile Point Unit 2 Snubber Program for Examination and Performance Testing of Dynamic Restraints (Snubbers) is defined in the Technical Requirements Manual (TRM) through the Improved Technical Specifications (ITS), and applies to the visual inspection and periodic testing requirements for shock suppressors (snubbers), by assuring the snubbers perform their intended function.

Scope of Examination - All Snubber Visual Examinations/inspections and testing are performed in accordance with plant technical requirements manual of the NMP2 Improved Technical Specifications and are outside the scope of this inspection plan and schedule.

5.4 Multiple Component Support Equivalency Tables

For multiple components within a system of similar design, function and service, the supports of only one

of the multiple components are required to be examined.

5.4.1 Class 1 Multiple Supports

The two Reactor Water Recirculation Pumps 2RCS*P1A and 2RCS*P1B are the only Class 1 pumps at NMP2. The Reactor Pressure Vessel is the only Class 1 vessel.

Table 5.4-1
CLASS 1 MULTIPLE SUPPORTS

Group	Component ID	Support ID	Vendor Fabrication Drawing	Isometric Locator	Selected
1P01	2RCS*P1A	2RCS-PSSH009A1	BZ-70L	64-00-1-12	Yes
		2RCS-PSSH010A1	BZ-70L	64-00-1-11	Yes
		2RCS-PSSH011A1	BZ-70L	64-00-1-09	Yes
		2RCS-PSSH012A1	BZ-70L	64-00-1-10	Yes
		*2RCS-PSSP042A1	BZ-70T	64-00-1-07	No
		*2RCS-PSSP044A1	BZ-70V	64-00-1-06	No
		*2RCS-PSSP046A1	BZ-70X	64-00-1-08	No
		*2RCS-PSSP061A1	BZ-70X	64-00-1-13	No
		*2RCS-PSSP062A1	BZ-70X	64-00-1-15	No
		*2RCS-PSSP063A1	BZ-70X	64-00-1-14	No
		2RCS-PSST059A1	BZ-70X	64-00-1-19	Yes
		2RCS-RA2	767E722	64-00-1-20	Yes
1P01	2RCS*P1B	2RCS-PSSH013A1	BZ-70L	64-00-4-15	No
		2RCS-PSSH014A1	BZ-70L	64-00-1-14	No
		2RCS-PSSH015A1	BZ-70L	64-00-1-12	No
		2RCS-PSSH016A1	BZ-70L	64-00-1-13	No
		*2RCS-PSSP041A1	BZ-70S	64-00-1-11	No
		*2RCS-PSSP043A1	BZ-70U	64-00-1-09	No
		*2RCS-PSSP045A1	BZ-70W	64-00-1-10	No
		*2RCS-PSSP064A1	BZ-70AJ	64-00-1-18	No
		*2RCS-PSSP065A1	BZ-70AK	64-00-1-16	No
		*2RCS-PSSP066A1	BZ-70AH	64-00-1-17	No
		2RCS-PSST060A1	BZ-70AE	64-00-1-19	No
		2RCS-RB2	767E722	64-00-1-20	No

* See paragraph 5.4 Snubbers

5.4.2 Class 2 Multiple Supports

The six Class 2 Pumps 2CSH*P1, 2CSL*P1, 2ICS*P1, 2RHS*P1A, 2RHS*P1B, and 2RHS*P1C are the only Class 2 pumps at NMP2. The Residual Heat Removal Heat Exchangers 2RHS*E1A and 2RHS*E1B are the only Class 2 nonexempt pressure vessels.

Table 5.4-2
CLASS 2 MULTIPLE SUPPORTS

Group	Component ID	Support ID	Vendor Fabrication Drawing	Isometric Locator	Selected
2P01	2CSH*P1	2CSH*P1-SUPPORT	2C-5270	25-series	Yes
2P02	2CSL*P1	2CSL*P1-SUPPORT	2C-5576	26-series	Yes
2P03	2ICS*P1	2ICS*P1-SUPPORT	FD230516	57-series	Yes
2P04	2RHS*P1A	2RHS*P1A-SUPPORT	21A1913AD	66-series	Yes
	2RHS*P1B	2RHS*P1B-SUPPORT	21A1913AD	66-series	No
2P05	2RHS*P1C	2RHS*P1C-SUPPORT	21A1913AD	66-series	No
2HE01	2RHS*E1A	2RHS*E1A-SUPPORT	762E909	66-series	Yes
	2RHS*E1B	2RHS*E1B-SUPPORT	762E909	66-series	No

5.4.3 Class 3 Multiple Supports

The ten Class 3 Pumps 2SFC*P1A, 2SFC*P1B, 2SWP*P1A, 2SWP*P1B, 2SWP*P1C, 2SWP*P1D, 2SWP*P1E, and 2SWP*P1F are the only Class 3 pumps at NMP2. The two SWF Heat Exchangers are the only Class 3 vessels.

Table 5.4-3
CLASS 3 MULTIPLE SUPPORTS

Group	Component ID	Support ID	Vendor Fabrication Drawing	Isometric Locator	Selected
3P01	2SFC*P1A	2SFC*P1A-SUPPORT	N239506#1	07-series	Yes
	2SFC*P1B	2SFC*P1B-SUPPORT	N239506#1	07-series	No
3P02	2SWP*P1A	2SWP*P1A-SUPPORT	N239505#1	21-20	No
	2SWP*P1B	2SWP*P1B-SUPPORT	N239505#1	21-17	Yes
	2SWP*P1C	2SWP*P1C-SUPPORT	N239505#1	21-19	No
	2SWP*P1D	2SWP*P1D-SUPPORT	N239505#1	21-17	No
	2SWP*P1E	2SWP*P1E-SUPPORT	N239505#1	21-21	No

Table 5.4-3
CLASS 3 MULTIPLE SUPPORTS

Group	Component ID	Support ID	Vendor Fabrication Drawing	Isometric Locator	Selected
	2SWP*P1F	2SWP*P1F-SUPPORT	N239505#1	21-18	No
3HE01	2SFC*E1A	2SFC*E1A-SUPPORT	5084312161	07-series	Yes
	2SFC*E1B	2SFC*E1B-SUPPORT	5084312161	07-series	No

Yes – Selected

5.5 Successive Inspections

The sequence of component support examinations established during the first inspection interval shall be repeated during each successive inspection interval, to the extent practical.

Note: Code Case N-624, modification of the sequence of examinations established during the first interval. (See Appendix I for requirements)

5.6 Aging Management Program

The License Renewal Rule (10 CFR 54) required NMPNS to be able to demonstrate that the effects of aging will be adequately managed so that the intended function(s) of each structure and component (SC) will be maintained consistent with the Current License Basis (CLB) for the period of extended operation.

This paragraph has been added to the existing in-service inspection program to identify that Section 5 of the existing inspection plan and schedule was compared against the Generic Aging Lessons Learned (GALL), NUREG-1801, Revision 0, Aging Management Program (AMP) XI.S3, ASME Section XI, Subsections IWF and has been credited for aging management as part of the NMP License Renewal Application (LRA).

This paragraph serves as a basis capture statement only, as during the extended period of operation, the inspection plan and schedule will be re-written to incorporate the latest Edition and Addenda as referenced in paragraph (b)(2) of Title 10, Part 50, Section 55a, Code of Federal Regulations.

SECTION 6 - AUGMENTED INSPECTIONS/EXAMINATIONS

6.0 AUGMENTED INSPECTIONS/EXAMINATIONS

This section of the Third In-service Inspection Plan and schedule provides a summary description of augmented in-service examination requirements. Augmented in-service inspections are those additional inspections/examinations required by the USNRC for systems and components for which the USNRC deems that added assurance of structural reliability is necessary. Augmented in-service inspections are performed in addition to the ASME Code, Section XI inspection/examination requirements. NMPNS plans on utilizing, where applicable, the results of the augmented in-service inspections to satisfy the requirements of the ASME Section XI required examinations.

Refer to Appendix E for Summary Table details.

6.1 Generic Letter 88-01, Augmented IGSCC Examinations

The requirements for an augmented IGSCC inspection program were initially provided by Generic Letter GL 88-01, GL 88-01 Supplement 1, "Intergranular Stress Corrosion Cracking in BWR Austenitic Stainless Steel Piping" and NUREG-0313, Revision 2, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping."

Generic Letter 88-01, USNRC Position on IGSCC in BWR Austenitic Stainless Steel Piping, presents the USNRC staff positions on materials, processes, water chemistry, weld overlay reinforcement, partial replacement, stress improvement of cracked weldments, clamping devices, crack characterization and repair criteria, inspection methods and personnel, inspection schedules, sample expansion, leak detection, and reporting requirements. The technical bases for these positions are detailed in NUREG-0313, Rev. 2, "Technical Report on Material Selection and process Guidelines for BWR Coolant Pressure Boundary Piping."

Generic Letter 88-01, Supplement #1 - In its first supplement to GL 88-01, issued February 4, 1992, the USNRC provided several acceptable alternative staff positions to those originally in the Generic Letter. NMPNS elected to use one of those alternative staff positions.

1. One of those positions allowed sample expansion for Category D welds to be limited to the piping system where the crack was found. NMPNS elected to examine 50% of Category D welds, by system loop, each cycle and used this relaxation of sample expansion criteria should cracking be found.

BWRVIP-75 BWR Vessel and Internals Project Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules

The Electric Power Research Institute (EPRI) report TR-113932, "BWR Vessel and Internals Project, Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules (BWRVIP-75)," dated October 1999, was submitted to the U. S. Nuclear Regulatory Commission (USNRC) for staff review by letter dated October 27, 1999. The BWRVIP-75 report proposed revisions to the extent and frequency for piping inspection contained in Generic Letter (GL) 88-01. The BWRVIP-75 report also provides justification for the proposed inspection criteria for Category A through E welds for the respective conditions of normal water chemistry (NWC) and hydrogen water chemistry (HWC).

The USNRC staff reviewed the BWRVIP-75 report, and proposed revisions and determined that the revised guidance for revisions of Generic Letter 88-01 inspection schedules, is acceptable for inspection of safety-related BWR piping welds, (USNRC Safety Evaluation, TAC No. MA5012, dated May 14, 2002), in lieu of the inspection guidance in GL 88-01 and NUREG-0313, Rev. 2, or as the technical basis for plant-specific request for a license amendment to change technical specifications requiring GL 88-01 or NUREG-0313, Rev. 2

inspections. Further the staff determined that the revised BWRVIP-75 guidance is acceptable for NMPNS referencing as the technical basis for relief from, or as an alternative to, the ASME Code and 10 CFR 50.55a, in order to use the sample schedules and frequencies specified in the revised BWRVIP-75 report that are less than those required by the ASME Code.

NMPNS has determined that the proposed reduction of inspection frequency is supported by the improved quality of reactor water chemistry. Based upon the staff recommendations, in order to qualify for the reduced inspection frequency as defined below, the average conductivity in reactor water coolant should not exceed the recommendations in the BWRVIP-29 report, or later revisions. The average conductivity can be calculated from the measurements made during the entire inspection interval based on the total operating time at a temperature at or above 200 degrees F.

GL 88-01 divided piping welds into 7 categories lettered A through G, of which three are applicable to NMPNS. They are categories A, D, and E. A summary of these categories as well as their applicability and scope of examinations based on normal water chemistry (NWC) is defined below:

6.1.1. **IGSCC Category A Weldments - Identifies welds which are fabricated from resistant materials.**

IGSCC Category A weldments are those welds with no known cracks, that have a low probability of incurring IGSCC problems, because they are made entirely of IGSCC resistant material or have been solution heat treated after welding. Augmented examinations required by GL 88-01 are identified as defined below.

Scope of Examination - IGSCC Category A welds have been incorporated within the Alternate Risk-Informed In-service Inspection Program, See section 7 of this document. There are one hundred thirteen (113), IGSCC Category "A" welds at NMP2.

Subject to Request for Relief: 2ISI-007**RR-RI-ISI-2**, Perform examinations in accordance with the Alternate Risk-Informed Inspection Program.

Note 2: See Appendix E for ASME Section XI Summary Tables.

6.1.2. **IGSCC Category B Weldments - Identifies welds which are fabricated from non-resistant material**

Category B weldments are those welds made of resistant materials, but have had an SI performed either before service or within two years of operation.

Scope of Examination - There are no welds in this category at the Nine Mile Point Nuclear Station.

6.1.3. IGSCC Category C Weldments - Identifies welds which are fabricated from non-resistant materials.

Category C weldments are those welds not made of resistant materials, and have been given an SI process after more than two years of operation.

Scope of Examination - There are no welds in this category at the Nine Mile Point Nuclear Station.

6.1.4. **IGSCC Category D Weldments - non-resistant materials: no stress improvement**

Category D weldments are those welds not made with resistant materials, and have not been given an SI treatment, but have been examined and found to be free of cracks. Included in this category are all bimetallic nozzle weldments made with non-resistant material and 182 inconel weld butter.

Previous Inspection Requirements - All welds were examined at least once every two refueling outages. Approximately 50% of all Category D welds were examined each refueling outage. Welds classified as

category D were examined in accordance with GL 88-01, Table 1, as modified by alternative staff position number 4 for sample expansion, as contained in Supplement 1 to GL 88-01. All 47 Category D welds were currently scheduled to be ultrasonically examined every other refueling outage, with sample expansion limited to the piping system loop where cracking was found.

Scope of Examination - Category D welds will be examined at a frequency of 100% of the population every six years. NMPNS is on a two year fuel cycle, so the frequency is 100% every three outages.

TABLE 6 - 1
IGSCC CATEGORY D WELDS

Category	System No.	Total No. Welds	Total No. Welds Req'd	Total Exams Sched	Total Welds Sched 1ST Period	Total Welds Sched 2ND Period	Total Welds Sched. 3RD Period	Totals Welds Sched. Interval
G-L-D	002 -CSH	1	1	1	0	1	0	1
	003 - CSL	2	2	2	0	2	0	2
	005 - FWS	5	5	10	4	1	5	10
	008 - ISC	2	2	4	1	1	2	4
G-L-D	012 - WCS	18	18	36	18	0	18	36
	011 - RCS	13	13	26	6	7	13	26
	014 - RHS	6	6	12	4	2	6	12
Totals		47	47	91	33	14	44	91

6.1.5. **IGSCC Category E Weldments - All welds included in this category are weld overlays.**

Category E weldments are those welds with known cracks that have been reinforced by an acceptable weld overlay or have been mitigated by an SI treatment welding.

Previous Inspection Requirements - should be inspected once every two refueling outages after repair. Approximately 50% shall be inspected during the first refueling outage and subsequent outages shall be maintained for the rest of the interval.

Scope of Examination - should be inspected using a 25% sample every ten years. Fifty percent (50%) of these examinations are to be completed within the first 6 years of the interval.

- (2) Category E welds, (1) required once every two refueling outages

TABLE 6 - 2
IGSCC CATEGORY E WELDS

Category	System No.	Total No. Welds	Total No. Welds Req'd	Total Exams Sched	Total Welds Sched 1ST Period	Total Welds Sched 2ND Period	Total Welds Sched. 3RD Period	Totals Welds Sched. Interval
G-L-E	002 - CSH	1	1	2	0	1	1	2
	005 - FWS	1	1	1	0	1	0	1
Totals		2	2	3	0	2	1	3

6.1.6. IGSCC Category F Weldments - Cracked, inadequate or no repair

Category F weldments are those welds with known cracks that have been approved by analysis for limited additional service without repair.

Scope of Examination – inspect each refueling outages.

- (0) Category F welds.

6.1.7. IGSCC Category G Weldments - Non-resistant and not inspected by UT

Category G weldments are those welds not made of resistant materials, have not been given an SI treatment.

Scope of Examination - Welds classified as Category G are examined in accordance with GL 88-01.

- Not applicable to Nine Mile Point Nuclear Station

Inspection Schedule - The extent and frequency of inspection for various weldment categories are detailed in Table below.

Note: AMP XI.M7 BWR Stress Corrosion Cracking is applicable and XI.M25 BWR Reactor Water Cleanup System is not applicable to NMP2.

TABLE 6 - 5
IGSCC EXAMINATION REQUIREMENTS

IGSCC CAT	Weld Description	EXISTING INSPECTION FREQUENCY GL 88-01	REVISED INSPECTION FREQUENCY (Note 1) BWRVIP-75		Scope Expansion NWC	NMP2 Applicability
			NWC	HWC		
A	Resistant Materials	25%, Every 10 Year Interval, At least 12% in 6 years	B-F = 25% every 10 years B-J = 10% every 10 years	10% every 10 years	Note 2	Incorporated under Alternate Risk-Informed Program, Currently 113 welds Note 5
B	Non-resistant Materials; Stress Improvement (SI) within 2 years of operation	50%, Every 10 Year Interval, At least 25% in 6 years	25% every 10 years	10% every 10 years	Note 2	Not applicable to NMP2
C	Non-resistant Materials; Stress Improvement (SI) after 2 years of operation	All Within Two Refueling Cycles after the Post-SI Inspection, and All Every 10 Years thereafter, At least 50% in 6 years	25% every 10 years	10% every 10 years	Note 2	Not applicable to NMP2
D	Non-resistant Materials; No Stress Improvement	All Every Two Refueling Outage, 50% each refueling outage	100% every 6 years	100% every 10 years., at least 50% in 1ST. 6 years	Note 3	Currently 47 welds
E	Cracked - Reinforced by weld overlay	All Every Two Refueling Outages, 50% each refueling outage	25% every 10 years	10% every 10 years	Note 4	Currently 1 weld
	Cracked; mitigated by SI		100% every 6 years	100% every 10 years., at least 50% in 1ST. 6 years	Note 3	Currently 1 weld
F	Cracked; Inadequate or no repair	All Every Refueling Outage	Every refueling outage	Every refueling outage	N/A	No weld
G	Non-resistant; Not Inspected (by UT)	All Next refueling Outage	Next outage	Next outage	N/A	No welds

Notes:

1. Where examination sample is less than 100%, approximately half the sample is required to be inspected during the first 10 years of the interval.
2. If one or more welds are determined to be cracked by this examination program, a sample of equal size and approximately the same distribution will be examined during the same outage. If cracking is detected in the second sample, 25% of the remaining category population will be examined. If additional cracking is detected, the entire category population will be examined. The size or distribution of the expanded sample may be altered if technical justification exists.
3. If cracking is detected, the sample size will be expanded
4. The first expanded sample will be the same size as the initial sample.

6.2 Generic Letter 98-05, Boiling Water Reactor Licensees Use of the BWRVIP - 05 Report to Request Relief From Augmented Examination Requirements on Reactor Vessel Shell Welds.

The technical basis providing justification for the permanent elimination of the examination requirements of the reactor pressure vessel shell circumferential welds is contained in BWRVIP-05, "BWR Reactor Pressure Vessel Shell Weld Inspection Recommendations."

Scope of Examination - See Examination Category B-A, Section 2 of this document for additional information.

6.3 NUREG 0619

This NUREG was initially addressed in the FSAR as licensing issue 36. The subject is cracking of the feedwater nozzles and control rod drive return lines in BWR's. Neither of these are problems at NMP2 for the following reasons:

- The feedwater nozzles have been redesigned by General Electric and a topical report was issued covering the redesign and has been accepted by the USNRC.
- The potential CRD return line issue has been solved at NMP2 by removing the CRD return line, therefore, eliminating temperature transients that caused cracking in other BWR facilities.

Note: AMP XI.M5 BWR Feedwater Nozzle, and XI.M6 BWR Control Rod drive Return Line Nozzle are not applicable to NMP2.

6.4 Augmented Inspections

Augmented inspections are those additional inspections determined by NMPNS for systems and components where added inspections are prescribed in Nuclear Engineering Reports (NER's), Deviation Event Reports (DER's), Service Information Letters (SIL's), etc. These augmented inspections in most cases do not comply with Code requirements, therefore, credit can not be claimed.

6.5 In-Vessel Visual Examinations (BWRVIP)

NMPNS has voluntary committed to additional inspections of the NMP2 reactor vessel and internals. These additional inspections are outside the scope of the ASME Section XI Code requirements. Specific inspection requirements are addressed in Nuclear Engineering Reports (NERs).

6.6 NSSS Supplier Recommendations

General Electric Nuclear Energy (GENE) implements the Service Information Letter (SIL) and the Rapid Information Communication Services Information Letters (RICSIL) programs. NMPNS may voluntary commit to additional inspections as applicable to NMP2. These additional inspections are outside the scope of the ASME Section XI Code requirements. Specific inspection requirements are addressed in Nuclear Engineering Reports (NERs).

6.7 Aging Management Program

The License Renewal Rule (10 CFR 54) required NMPNS to be able to demonstrate that the effects of aging will be adequately managed so that the intended function(s) of each structure and component (SC) will be maintained consistent with the Current License Basis (CLB) for the period of extended operation.

This paragraph has been added to the existing in-service inspection program to identify that all or portions of Section 6 of the existing inspection plan and schedule was compared against the Generic Aging Lessons Learned (GALL), NUREG-1801, Revision 0, Aging Management Program (AMP) XI.M3 Reactor Head Closure Studs, XI.M5 BWR Feedwater Nozzle, XI.M6 BWR CRD return Line Nozzle, XI.M7 BWR Stress Corrosion Cracking, and XI.M25 BWR RWCU, and were applicable have been credited for aging management as part of the NMP License Renewal Application (LRA).

This paragraph serves as a basis capture statement only, as during the extended period of operation, the inspection plan and schedule will be re-written to incorporate the latest Edition and Addenda as referenced in paragraph (b)(2) of Title 10, Part 50, Section 55a, Code of Federal Regulations.

SECTION 7 - ALTERNATE RISK-INFORMED INSPECTION PROGRAM

7.0 ALTERNATIVE RISK-INFORMED INSPECTION

As an alternative to the 1989 Edition of ASME Section XI Code, ASME Code Class 1 and 2 piping weld examinations, NMPNS developed an alternative risk-informed in-service inspection program (RI-ISI). The alternative risk-informed in-service inspection process (RI-ISI) summarized in this section was developed based on the Electric Power Research Institute (EPRI) Topical Report (TR) 112657 Rev. B-A titled "Revised Risk-Informed In-service Inspection Evaluation Procedure", here after referred to as the EPRI-ISI-TR, and EPRI TR 1006937 Rev. O-A titled "Extension of EPRI Risk Informed ISI Methodology to Break Exclusion Region Programs", hereafter referred to as the EPRI-RI-BER-TR.

The implementation of the Alternative Risk-Informed In-service Inspection Program, as defined in this section of the inspection plan, will be implemented in accordance with the American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel Code Case N-578-1, titled "Risk-Informed Requirements for Class 1, 2, or 3 Piping, Method B, Section XI, Division 1, approved by ASME on March 28, 2000, as defined below. (See Appendix I for requirements)

7.1 Systems Subject to Risk-Informed Inspection

Systems subject to examination under the RI-ISI program were based on the ASME Code Class 1 and 2 piping system classifications.

The ASME Code Class 1 and 2 components and systems subject to RI-ISI examination are identified below.

A comparison between the proposed Alternative RI-ISI Program and the current ASME Section XI In-service Inspection Program requirements for in-scope piping is given in Table 7-1 below.

Table 7-1 Comparison between RI-ISI and ASME Code

System-Zone No.[1]	RI-ISI Inspection Locations				ASME Section XI 2001 Edition thru 2003 Addenda Examination Requirements			
	Class 1	Class 2	Class 3	NNS	B-F	B-J	C-F-1	C-F-2
ASS-001	0	4	0	0	0	0	0	4
CSH-002	23	164	0	0	2	21	6	158
CSL-003	21	117	0	0	2	19	6	111
DER-004	2	0	0	0	0	3	0	0
FWS-005	104	0	0	0	6	99	0	0
ICS-007	71	210	0	0	1	70	7	203
ISC-008	21	0	0	0	14	9	0	0
MSS-013	255	92	0	0	0	253	0	94
RCS-011	118	0	0	0	12	106	0	0
RDS-010	2	76	0	0	0	2	0	76
RHS-014	170	842	0	0	6	164	26	797
RPV-006	1	0	0	0	0	1	0	0
SLS-009	50	0	0	0	0	50	0	0
WCS-012	167	0	0	0	0	157	0	0
TOTAL	1005	1505	0	0	43	954	45	1443

1. Systems are described in Table 2.2
2. High Risk = Categories 1, 2 and 3
   Medium Risk = Categories 4 and 5
   Ranking includes impact of all degradation mechanisms (e.g., FAC, IGSCC, TASCS, etc.)
3. Includes programs to address Generic Letter 89-08 (FAC) and Generic Letter 88-01 (IGSCC in BWRs)

7.2 Piping Subject to Examination

The alternative examination requirements of this Section shall be used for ASME Code Class 1 and 2 piping evaluated by the EPRI-TR risk-informed process. For ASME Code Class 1 and 2 piping, these requirements are an alternative to the requirements of Examination Categories B-F, B-J, Table IWB-2500-1, Examination Categories C-F-1, or C-F-2, Table IWC-2500-1 and IGSCC Category "A", Generic Letter 88-01 piping welds.

7.3 Element Selection

Element selections require 25% of the locations in the high risk regions (i.e., risk categories 1, 2 & 3) and 10% of the locations in the medium risk regions (i.e., risk categories 4 & 5) be selected for examination, utilizing the appropriate NDE examination methods. Each of the locations is tailored to the applicable degradation mechanism defined by ASME Code Case N-578-1. Table 7-3 provides the number of items attributed to specific degradation mechanisms.

A review of ASME Code Class 1 RI-ISI selections was made to ensure that the percentage was not significantly reduced below 10 percent of the ASME Code Class 1 piping population. The results of this review indicate that the Alternative RI-ISI program will be inspecting greater than 10 percent of the ASME Code Class 1 piping systems.

Table 7-3 Degradation Mechanisms by ASME Code Class

Abbreviation	Degradation Mechanism	ASME Code Class 1 Items	ASME Code Class 2 Items	Total Number of Items
TASCS	Thermal Transients	174	243	417
TT	Thermal Transients	0	0	0
N/A	Thermal Stripping, Cycling and Stratification	0	0	0
IGSCC	Intergranular Stress Corrosion Cracking	49	0	49
TGSCC	Transgranular Stress Corrosion Cracking	0	0	0
ECSCC	External Chloride Stress Corrosion Cracking	0	0	0
PWSCC	Primary Water Stress Corrosion Cracking	0	0	0
MIC	Microbiologically Influenced Corrosion	0	0	0
Pitting	Pitting	0	3	3
CC	Crevice Corrosion Cracking	1	0	1
EC	Cavitation	4	0	4
FAC	Flow Accelerated Corrosion	14	18	32
None	No Degradation Mechanism	766	1244	2010

7.4 Alternative Risk-Informed In-service Inspection Plan and Schedule

The Alternative Risk-Informed In-service Inspection Plan and Schedule was implemented starting with refueling outage eight (RFO-08), the first refueling outage of the second in-service inspection period. The Alternative RI-ISI program required one hundred twenty five (125) element examinations to be completed

over the second ten-year in-service inspection interval. One hundred forty five (145) element examinations have been scheduled for completion in the third ten-year in-service inspection interval.

The applicable ASME Code Case to be used for the Alternative Risk-Informed Inspection Program of ASME Code Class 1 and Code Class 2 piping examinations is ASME Code Case N-578-1, Risk-Informed Requirements for Class 1, 2, or 3 Piping, Method B, Section XI, Division 1, approved by ASME on March 28, 2000. The requirements of the Code Case were applied to the EPRI-TR process.

7.5 Category R-A, Risk-Informed Piping Examinations

All examinations are performed from the inside and/or outside surface using manual/automated inspection equipment, (as applicable), and utilizing volumetric examination techniques.

All high safety significant (HSS) piping structural elements have been classified in accordance with Examination Category R-A. In order to incorporate these examinations into the current in-service inspection database and still maintain alignment with the current ASME Code Class requirements and for accounting/percentage purposes, NMPNS has classified the examination elements in accordance with Table 7-5 below. Refer to Appendix F for RI-ISI Summary Table details.

Table 7-5 Classification Criteria

Abbreviation	Degradation Mechanism	Examination Category	Examination Item Number	
			Class 1	Class 2
TT	Thermal Transient	R-A	R1.11	R2.11
TASCS	Thermal Transient	R-A	R1.11	R2.11
N/A	Thermal Stripping, Cycling and Stratification	R-A	R1.12	R2.12
IGSCC	Intergranular Stress Corrosion Cracking	R-A	R1.16	R2.16
TGSCC	Transgranular Stress Corrosion Cracking	R-A	R1.16	R2.16
ECSCC	External Chloride Stress Corrosion Cracking	R-A	R1.19	R2.19
PWSCC	Primary Water Stress Corrosion Cracking	R-A	R1.15	R2.15
MIC	Microbiologically Influenced Corrosion	R-A	R1.17	R2.17
Pitting	Pitting	R-A	R1.18	R2.18
CC	Crevice Corrosion Cracking	R-A	R1.14	R2.14
EC	Cavitation	R-A	R1.13	R2.13
FAC	Flow Accelerated Corrosion	R-A	R1.18	R2.18
None	No Degradation Mechanism	R-A	R1.20	R2.20
N/A	Socket Welds (HSS) only	R-B	R1.21	R2.21
N/A	Intersecting Longitudinal Weld Seams	R-B	R1.22	R2.22

The elements subject to examination under Examination Category R-A shall be completed during each inspection interval in accordance with Table IWB-2411-1 or Table IWB-2412-1.

A narrative discussion of ASME Code Class 1 and Class 2 components subject to RI-ISI examination are described in detail below:

Items R1.10 High-Safety-Significant Piping Structural Elements

7.5.1 Items R1.11 and R2.11 - Elements Subject to Thermal Fatigue

Scope of Examination - Volumetric examination, (1) The length for the examination volume shall be increased to include 1/2 inch, beyond each side of the base metal thickness transition or counterbore; (2) Includes all elements identified in accordance with the risk-informed selection process ; (4) The examinations shall include any longitudinal weld at the location selected for examination as defined in (2). The longitudinal weld examination requirements shall be met for both transverse and parallel flaws examination volume defined in (2); (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-7(a), 8(c), 9, 10, 11 as applicable. refer to the 1989 Edition of Section XI.

- (174) R1.11 Elements subject to Thermal Fatigue (48) selected
- (243) R2.11 Elements subject to Thermal Fatigue (23) selected

ASME Section XI Interpretation XI-1-98-74

When performing a volumetric examination and no identifiable transition or counterbore area is determined for the weld, the requirements of note 1 in Table 1 of ASME Code Case N-578-1 does not apply.

7.5.2 Items: R1.12 and R2.12 Elements Subject to High Cycle Mechanical Fatigue

Scope of Examination - Visual (VT-2) examination each refueling outage; (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers refer to the 1989 Edition. (11) VT-2 examinations may be conducted during a system pressure test or a pressure test specific to that element.

- (N/A) R1.12 Elements subject to High Cycle Mechanical Fatigue
- (N/A) R2.12 Elements subject to High Cycle Mechanical Fatigue

Note: Not applicable to Nine Mile Point Nuclear Station

7.5.3 Items: R1.13 and R2.13 Elements Subject to Erosion Cavitation

Scope of Examination - Volumetric examination; (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (8) The examination volume shall include base metal, welds, and weld HAZ in the affected regions of carbon and low alloy steel, and the welds and weld HAZ of austenitic steel. Examinations shall verify the minimum wall thickness required. Acceptance criteria for localized thinning is in the course of preparation. The examination method and examination region shall be sufficient to characterize the extent of the element degradation; (10) Paragraph and Figure numbers IWB-2500-8(c) refer to the 1989 Edition.

- (4) R1.13 Elements subject to Erosion Cavitation, (1) selected
- (N/A) R2.13 Elements subject to Erosion Cavitation

7.5.4 **Items: R1.14 and R2.14 Elements Subject to Crevice Corrosion Cracking**

Scope of Examination - Volumetric examination, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (7) The examination volume shall include the volume surrounding the weld, weld heat affected zone, and base metal, where applicable, in the crevice region. Examination should focus on detection of cracks initiating and propagating from the inner surface; (10) Paragraph and Figure numbers refer to the 1989 Edition.

- (1) R1.14 Elements subject to Crevice Corrosion Cracking, (0) selected
- (N/A) R2.14 Elements subject to Crevice Corrosion Cracking

Note: Currently within the industry there are no qualified procedures, techniques and configurations identified by EPRI.

7.5.5 **Items: R1.15 and R2.15 Elements Subject to Primary Water Stress Corrosion Cracking (PWSCC) Note 6**

Scope of Examination - Visual VT-2 examination each refueling outage, (2) Includes all elements identified in accordance with the risk-informed selection process ; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (6) Applies to mill-annealed Alloy 600 nozzle welds and heat affected zone (HAZ) without stress relief; (10) Paragraph and Figure numbers refer to the 1989 Edition; (11) VT-2 examinations may be conducted during a system pressure test or a pressure test specific to that element.

- (N/A) R1.15 Elements subject to PWSCC
- (N/A) R2.15 Elements subject to PWSCC

Note: Not applicable to Nine Mile Point Nuclear Station

7.5.6 **Items: R1.16 and R2.16 Elements Subject to Intergranular or Transgranular Stress Corrosion Cracking (IGSCC, TGSCC)**

Scope of Examination - Volumetric examination, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-8(c), 9, 10 and 11, refer to the 1989 Edition.

- (49) R1.16 Elements subject to IGSCC (20) selected, Examinations performed in accordance with the current IGSCC program.
- (N/A) R2.16 Elements subject to IGSCC.

7.5.7 **Items: R1.17 and R2.17 Elements Subject to Localized Microbiologically Corrosion (Microbiologically-Induced Corrosion (MIC), or Pitting)**

Scope of Examination - Visual (VT-3 of internal surfaces or volumetric (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (8) The examination volume shall include base metal, welds, and weld HAZ in the affected regions of carbon and low alloy steel, and the welds and weld HAZ of austenitic steel. Examinations shall verify the minimum wall thickness required. Acceptance criteria for localized thinning is in the course of preparation. The examination method and examination region shall be sufficient to characterize the extent of the element degradation; (10) Paragraph and Figure numbers IWB-2500-8(c), 9, 10 and 11, refer to the 1989 Edition.

- (N/A) R1.17 Elements subject to MIC
- (N/A) R2.17 Elements subject to MIC

Note: Not applicable to Nine Mile Point Nuclear Station

7.5.8 **Items: R1.18 and R2.18 Elements Subject to Flow Accelerated Corrosion (FAC)**

Scope of Examination - Examination, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (9) In accordance with the FAC program; (10) Paragraph and Figure numbers refer to the 1989 Edition.

- (14) R1.18 Elements subject to FAC, Examinations performed in accordance with current FAC program.
- (18) R2.18 Elements subject to FAC. Examinations performed in accordance with current FAC program.

7.5.9 **Items: R1.19 and R2.19 Elements Subject to External Chloride Stress Corrosion Cracking (ECSCC)**

Scope of Examination - Surface examination to, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-8(c) refer to the 1989 Edition.

- (N/A) R1.19 Elements subject to ECSCC
- (N/A) R2.19 Elements subject to ECSCC

Note: Not applicable to Nine Mile Point Nuclear Station

7.5.10 **Items: R1.20 and R2.20 Elements not Subject to a Damage Mechanism**

Scope of Examination - Volumetric examination to, (1) The length for the examination volume shall be increased to include 1 /2 inch, beyond each side of the base metal thickness transition or counterbore; (2) Includes all elements identified in accordance with the risk-informed selection process; (4) The examinations shall include any longitudinal weld at the location selected for examination in (2). The longitudinal weld examination requirements shall be met for both transverse and parallel flaws examination volume defined in (2); (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-8(c), 7(a), 9, 10, 11, refer to the 1989 Edition.

- (768) R1.20 Elements subject to No Degradation, (45) selected
- (1244) R2.20 Elements subject to No Degradation, (8) selected

ASME Section XI Interpretation XI-1-98-74

When performing a volumetric examination and no identifiable transition or counterbore area is determined for the weld, the requirements of note 1 in Table 1 of ASME Code Case N-578-1 does not apply.

7.6 **Category R-B, Risk-Informed Piping Examinations**

All high safety significant (HSS) piping structural elements have been classified in accordance with Examination Category R-A, Table 7-5 as defined above. For those examinations for which no examination

item number is prescribed, Category R-B has been designated in order to incorporate these examinations into the current in-service inspection database and still maintain alignment with the current ASME Code Class requirements and for accounting/percentage purposes. A narrative discussion of the components subject to this classification is described in detail below:

7.6.1 Items: R1.21 and R2.21 Socket Weld Elements Located in High Safety Significant Systems

Scope of Examination - Visual (VT-2) examination, For those socket welds located in (HSS) risk categories 1, 2, and 3, perform visual examination each refueling outage as prescribed in footnote (12) of Table 1 of Code Case N-578-1. VT-2 examinations are performed in accordance with the system pressure test program.

- (37) R1.21 Socket welds subject to a VT-2 examination, None required.
- (12) R2.21 Socket welds subject to a VT-2 examination, None required

Note: Not applicable to NMPNS, not located on any HSS piping structural elements.

7.6.2 Items: R1.22 and R2.22 Intersecting Longitudinal Weld Seams

Scope of Examination - All longitudinal pipe welds intersecting any of the selected circumferential welds will also be examined.

- (134) Class 1 and 2 longitudinal welds subject to examination

7.7 Category R-C, Risk-Informed BER Piping Examinations

All examinations are performed from the inside and/or outside surface using manual/automated inspection equipment, (as applicable), and utilizing volumetric examination techniques.

All high safety significant (HSS) piping structural elements have been classified in accordance with Examination Category R-A. In order to incorporate these examinations into the current in-service inspection database and still maintain alignment with the current ASME Code Class requirements and for accounting/percentage purposes, NMPNS has classified the BER examination elements in accordance with Table 7-7 below.

Table 7-7 BER Classification Criteria

Abbreviation	Degradation Mechanism	Examination Category	Examination Item Number			
			Class 1	Class 2	Class 3	Class 4
TT	Thermal Transient	R-C	R1.11	R2.11	R3.11	R4.11
TASCS	Thermal Transient	R-C	R1.11	R2.11	R3.11	R4.11
N/A	Thermal Stripping, Cycling and Stratification	R-C	R1.12	R2.12	R3.12	R4.12
IGSCC	Intergranular Stress Corrosion Cracking	R-C	R1.16	R2.16	R3.16	R4.16
TGSCC	Transgranular Stress Corrosion Cracking	R-C	R1.16	R2.16	R3.16	R4.16
ECSCC	External Chloride Stress Corrosion Cracking	R-C	R1.19	R2.19	R3.19	R4.19
PWSCC	Primary Water Stress Corrosion Cracking	R-C	R1.15	R2.15	R3.15	R4.15
MIC	Microbiologically Influenced Corrosion	R-C	R1.17	R2.17	R3.17	R4.17

Table 7-7 BER Classification Criteria

Abbreviation	Degradation Mechanism	Examination Category	Examination Item Number			
			Class 1	Class 2	Class 3	Class 4
Pitting	Pitting	R-C	R1.18	R2.18	R3.18	R4.18
CC	Crevice Corrosion Cracking	R-C	R1.14	R2.14	R3.14	R4.14
EC	Cavitation	R-C	R1.13	R2.13	R3.13	R4.13
FAC	Flow Accelerated Corrosion	R-C	R1.18	R2.18	R3.18	R4.18
None	No Degradation Mechanism	R-C	R1.20	R2.20	R3.20	R4.20

The elements subject to examination under Examination Category R-C shall be completed during each inspection interval in accordance with Table IWB-2411-1 or Table IWB-2412-1.

The Alternative RI-BER program requires twenty four (24) element examinations to be completed over the third ten-year in-service inspection interval.

A narrative discussion of ASME Code Class 1, Class 2, Class 3 and Class 4 components subject to RI-BER examination are described in detail below:

Items R1.10 High-Safety-Significant Piping Structural Elements

7.7.1 **Items R1.11, R2.11, R3.11 and R4.11 - Elements Subject to Thermal Fatigue**

Scope of Examination - Volumetric examination, (1)The length for the examination volume shall be increased to include 1 /2 inch, beyond each side of the base metal thickness transition or counterbore; (2) Includes all elements identified in accordance with the risk-informed selection process ; (4) The examinations shall include any longitudinal weld at the location selected for examination as defined in (2). The longitudinal weld examination requirements shall be met for both transverse and parallel flaws examination volume defined in (2); (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-7(a), 8(c), 9, 10, 11 as applicable. refer to the 1989 Edition.

- (46) R1.11 Elements subject to Thermal Fatigue (10) selected
- (N/A) R2.11 Elements subject to Thermal Fatigue
- (N/A) R3.11 Elements subject to Thermal Fatigue
- (N/A) R4.11 Elements subject to Thermal Fatigue

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When performing a volumetric examination and no identifiable transition or counterbore area is determined for the weld, the requirements of note 1 in Table 1 of ASME Code Case N-578-1 does not apply.

7.7.2 **Items: R1.12, R2.12, R3.12 and R4.12 Elements Subject to High Cycle Mechanical Fatigue**

Scope of Examination - Visual VT-2 examination each refueling outage; (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers refer to the 1989 Edition. (11) VT-2 examinations may be conducted during a system pressure test or a pressure test specific to that element.

- (N/A) R1.12 Elements subject to High Cycle Mechanical Fatigue
- (N/A) R2.12 Elements subject to High Cycle Mechanical Fatigue
- (N/A) R3.12 Elements subject to High Cycle Mechanical Fatigue
- (N/A) R4.12 Elements subject to High Cycle Mechanical Fatigue

Note: Not applicable to Nine Mile Point Nuclear Station

7.7.3 **Items: R1.13, R2.13, R3.13 and R4.13 Elements Subject to Erosion Cavitation**

Scope of Examination - Volumetric examination; (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (8) The examination volume shall include base metal, welds, and weld HAZ in the affected regions of carbon and low alloy steel, and the welds and weld HAZ of austenitic steel. Examinations shall verify the minimum wall thickness required. Acceptance criteria for localized thinning is in the course of preparation. The examination method and examination region shall be sufficient to characterize the extent of the element degradation; (10) Paragraph and Figure numbers IWB-2500-8(c) refer to the 1989 Edition.

- (N/A) R1.13 Elements subject to Erosion Cavitation
- (N/A) R2.13 Elements subject to Erosion Cavitation
- (N/A) R3.13 Elements subject to Erosion Cavitation
- (N/A) R4.13 Elements subject to Erosion Cavitation

Note: Not applicable to Nine Mile Point Nuclear Station

7.7.4 **Items: R1.14, R2.14, R3.14 and R4.14 Elements Subject to Crevice Corrosion Cracking**

Scope of Examination - Volumetric examination, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (7) The examination volume shall include the volume surrounding the weld, weld heat affected zone, and base metal, where applicable, in the crevice region. Examination should focus on detection of cracks initiating and propagating from the inner surface; (10) Paragraph and Figure numbers refer to the 1989 Edition.

- (N/A) R1.14 Elements subject to Crevice Corrosion Cracking
- (N/A) R2.14 Elements subject to Crevice Corrosion Cracking
- (N/A) R3.14 Elements subject to Crevice Corrosion Cracking
- (N/A) R4.14 Elements subject to Crevice Corrosion Cracking

Note: Currently within the industry there are no qualified procedures, techniques and configurations identified by EPRI.

7.7.5 **Items: R1.15, R2.15, R3.15 and R4.15 Elements Subject to Primary Water Stress Corrosion Cracking (PWSCC) Note 6**

Scope of Examination - Visual VT-2 examination each refueling outage, (2) Includes all elements identified in accordance with the risk-informed selection process ; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (6) Applies to mill-annealed Alloy 600 nozzle welds and heat affected zone (HAZ) without stress relief; (10) Paragraph and Figure numbers refer to the 1989 Edition; (11) VT-2 examinations may be conducted during a system pressure test or a pressure test specific to that element.

- (N/A) R1.15 Elements subject to PWSCC
- (N/A) R2.15 Elements subject to PWSCC
- (N/A) R3.15 Elements subject to PWSCC
- (N/A) R4.15 Elements subject to PWSCC

Note: Not applicable to Nine Mile Point Nuclear Station

7.7.6 **Items: R1.16, R2.16, R3.16 and R4.16 Elements Subject to Intergranular or Transgranular Stress Corrosion Cracking (IGSCC, TGSCC)**

Scope of Examination - Volumetric examination, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-8(c), 9, 10 and 11, refer to the 1989 Edition.

- (N/A) R1.16 Elements subject to IGSCC
- (N/A) R2.16 Elements subject to IGSCC
- (N/A) R3.16 Elements subject to IGSCC.
- (N/A) R4.16 Elements subject to IGSCC

7.7.7 **Items: R1.17, R2.17, R3.17 and R4.17 Elements Subject to Localized Microbiologically Corrosion (Microbiologically-Induced Corrosion (MIC), or Pitting)**

Scope of Examination - Visual (VT-3 of internal surfaces or volumetric (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (8) The examination volume shall include base metal, welds, and weld HAZ in the affected regions of carbon and low alloy steel, and the welds and weld HAZ of austenitic steel. Examinations shall verify the minimum wall thickness required. Acceptance criteria for localized thinning is in the course of preparation. The examination method and examination region shall be sufficient to characterize the extent of the element degradation; (10) Paragraph and Figure numbers IWB-2500-8(c), 9, 10 and 11, refer to the 1989 Edition.

- (N/A) R1.17 Elements subject to MIC
- (N/A) R2.17 Elements subject to MIC
- (N/A) R3.17 Elements subject to MIC
- (N/A) R4.17 Elements subject to MIC

7.7.8 **Items: R1.18, R2.18, R3.18 and R4.18 Elements Subject to Flow Accelerated Corrosion (FAC)**

Scope of Examination - Examination to, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (9) In accordance with the FAC program; (10) Paragraph and Figure numbers refer to the 1989 Edition.

- (1) R1.18 Elements subject to FAC, Examinations performed in accordance with current FAC program.
- (N/A) R2.18 Elements subject to FAC
- (N/A) R3.18 Elements subject to FAC
- (N/A) R4.18 Elements subject to FAC

7.7.9 **Items: R1.19, R2.19, R3.19 and R4.19 Elements Subject to External Chloride Stress Corrosion Cracking (ECSCC)**

Scope of Examination - Surface examination to, (2) Includes all elements identified in accordance with the risk-informed selection process; (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-8(c) refer to the 1989 Edition.

- (N/A) R1.19 Elements subject to ECSCC
- (N/A) R2.19 Elements subject to ECSCC
- (N/A) R3.19 Elements subject to ECSCC
- (N/A) R4.19 Elements subject to ECSCC

7.7.10 **Items: R1.20, R2.20, R3.20 and R4.20 Elements not Subject to a Damage Mechanism**

Scope of Examination - Volumetric examination to, (1) The length for the examination volume shall be increased to include ½ inch, beyond each side of the base metal thickness transition or counterbore; (2) Includes all elements identified in accordance with the risk-informed selection process; (4) The examinations shall include any longitudinal weld at the location selected for examination in (2). The longitudinal weld examination requirements shall be met for both transverse and parallel flaws examination volume defined in (2); (5) Initially selected elements are to be examined in the same sequence during successive inspection intervals, to the extent practical; (10) Paragraph and Figure numbers IWB-2500-8(c), 7(a), 9, 10, 11, refer to the 1989 Edition.

- (68) R1.20 Elements subject to No Degradation, (10) selected
- (7) R2.20 Elements subject to No Degradation, (4) selected
- (4) R3.20 Elements subject to No Degradation, (None) selected
- (2) R4.20 Elements subject to No Degradation, (None) selected

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When performing a volumetric examination and no identifiable transition or counterbore area is determined for the weld, the requirements of note 1 in Table 1 of ASME Code Case N-578-1 does not apply.

7.8 Augmented Inspections

Augmented inspection requirements of NUREG-0313, Rev. 2, USNRC Generic Letter 88-01, Supplement. 1, are discussed in detail within Section 6 of the In-service Inspection Plan and Schedule.

Augmented inspections, to the extent practical shall be used to satisfy the percentage requirements of Inspection Program "B".

Consistence with the EPRI-TR, Category A, Generic Letter 88-01 (NUREG-0313, Rev 2) welds are integrated into the proposed alternative RI-ISI program. As such, NMPNS response to Generic Letter 88-01 and its supplement remains unchanged for IGSCC Categories B through G at this time. Another augmented inspection program, Generic Letter 89-08 – Flow Accelerated Corrosion Program (FAC), is credited in the proposed RI-ISI program but is not affected or changed by the proposed RI-ISI program. Any other existing augmented inspection programs are unaffected by this submittal.

7.9 Examination Category B-P and C-H, Pressure Retaining Components

System pressure tests are conducted on all ASME Code Class 1, Class 2 and Class 3 systems and components in accordance with the Nine Mile Point Unit 2 System Pressure Testing Program. Visual examinations required by the RI-ISI program shall be performed in accordance with the current system pressure testing program.

7.10 Successive Inspections

The sequence of risk-informed piping weld examinations established during the second inspection interval will be repeated during the subsequent inspection interval, to the extent practical.

Note: Code Case N-624, modification of the sequence of examinations established during the first interval. (See Appendix I for requirements)

In accordance with IWB-2420(b), piping welds examined during the second inspection interval are evaluated in accordance with IWB-3142.4, and were determined by analysis to qualify as acceptable for continued service, the areas containing these indications shall require reexamination during the third inspection interval. Applicable welds are uniquely identified within the RI-ISI inspection plan Tables.

7.11 Unaffected Portions of ASME Section XI

Non-related portions of the ASME Section XI Code, (inspection intervals, acceptance criteria for evaluation of flaws, expansion criteria for flaws discovered, and qualification on examination techniques and personnel are essentially unaffected by the Alternative Risk-Informed Inspection Program.

SECTION 8 - ACCEPTANCE STANDARDS

8.0 ACCEPTANCE STANDARDS

Flaws and/or relevant conditions detected during an in-service examination shall be compared against the acceptance standards of Section XI, 2001 Edition, through 2003 Addenda as defined in Tables 8-1 through 8-5 below.

8.1 Acceptance by Volumetric or Surface Examination

A component whose volumetric or surface examination either reconfirms the absence of flaws/conditions or detects flaws indications that do not exceed the acceptance criteria identified in Tables 8-1 through 8-5, shall be acceptable for continued service. Verified changes of flaws/conditions from prior examinations shall be recorded.

Acceptance of components for continued service with indications/conditions exceeding the acceptance criteria above shall be corrected in accordance with paragraphs 8.2 through 8.6.

8.2 Acceptance by Repair/Replacement Activity

A component whose volumetric or surface examination reveals flaws/conditions that exceed the acceptance criteria of Tables 8-1 through 8-5 shall be unacceptable for continued service until the additional examination requirements are satisfied and the component is corrected by a repair/replacement activity to the extent necessary to meet the acceptance criteria in 8.1.

Note 1: The additional examination requirements of IWB-2430, IWC-2430, or IWF-2430, (as applicable) shall be performed for service induced defects/conditions, and/or those construction or manufacturing defects determined by Nuclear Engineering to be detrimental to the quality or safety of the component/system.

8.3 Acceptance by Analytical Evaluation

A component whose volumetric or surface examination reveals flaws that exceed the acceptance criteria of Tables 8-1 through 8-5 are acceptable for continued service without a repair/replacement activity if an analytical evaluation meets the acceptance criteria of IWB-3600 or IWC-3600 as applicable.

Where the acceptance criteria of IWB-3600 or IWC-3600 are satisfied, the area containing the flaw shall be subsequently reexamined in accordance with 8.4.1, or 8.4.2 .

Note 2: Reexamination shall be accomplished only on service induced defects/conditions.

8.4 Successive Inspections

8.4.1 Class 1 Components

Pursuant to the Section XI Code, sub-article IWB-2420 (b), in the case, where examinations reveal the presence of service-induced defects that exceed the acceptance standards and the component is analyzed as acceptable for continued service, the areas containing such flaws shall be reexamined during the next three (3) inspection periods of Inspection Program B (IWB-2412-1). Provided the flaw remains essentially unchanged for three successive inspection periods, the component examination schedule will revert to the original schedule of successive inspections.

8.4.2 Class 2 Components

Pursuant to the Section XI Code, sub-article IWC-2420 (b), in the case, where examinations reveal the presence of service-induced defects that exceed the acceptance standards and the component is analyzed as acceptable for continued service, the areas containing such flaws shall be reexamined during the next inspection period of Inspection Program B (IWC-2412-1). Provided the flaw remains essentially unchanged for the next inspection period, the component examination schedule will revert to the original schedule of successive inspections.

8.4.3 Class 3 Components

Pursuant to the Section XI Code, sub-article IWD-2420 (b), in the case, where examinations reveal the presence of service-induced defects that exceed the acceptance standards and the component is analyzed as acceptable for continued service, the areas containing such flaws shall be reexamined during the next inspection period of Inspection Program B (IWD-2412-1). Provided the flaw remains essentially unchanged for the next inspection period, the component examination schedule will revert to the original schedule of successive inspections.

8.4.4 Class MC Components

For ASME Code Class MC, see Containment Inspection Plan and Schedule CNG-NMP2-CISI-003.

8.4.5 Class 1, 2 and 3 Component Supports

Pursuant to ASME Code, sub-article IWF-2420(b), when a component support is accepted for continued service, the component support shall be reexamined during the next inspection period of Inspection Program B. When the re-examination do not require additional corrective measures, the component support will revert to the original schedule of successive inspections.

8.5 Acceptance by Engineering Evaluation

Examinations that reveal indications/conditions exceeding the acceptance criteria identified in Tables 8-1 through 8-5 will be submitted to Nuclear Engineering for evaluation and disposition:

A. Indications/conditions found to be acceptable by the materials and welding criteria specified in the Construction Code and/or Section III Edition applicable to the construction of the component shall be acceptable for continued service.

B. Indications/conditions determined to be acceptable by the NMPNS Design and/or Manufacturer's Specifications shall be acceptable for continued service.

C. Indications/conditions believed to be surface anomalies (e.g., fabrication marks, scratches, surface abrasion, material roughness or other conditions are acceptable for continued service provided the indication/condition is removed by light flapping and/or grinding (surface preparation), and the material removed does not violate the design minimum wall thickness.

D. If the evaluations conducted on a component support demonstrates that the support was functional for its intended safety function, additional exams are not required.

E. When supplemental examinations of 8.7 are required, if either the thickness of the base metal is reduced by no more than 10% of the nominal plate thickness or the reduced thickness can be shown by analysis to satisfy the requirements of the Design Specifications, the component shall be

acceptable by evaluation.

F. Where the flaw or area of degradation are accepted by engineering evaluation, the area containing the flaw or degradation shall be reexamined in accordance with 8.4.

Nuclear Engineering evaluation and/or disposition may include the need for corrective measures, repairs, maintenance, analytical evaluation, or replacement, as appropriate.

8.6 Acceptance by Corrective Measures or Repair/Replacement Activity

A Component supports whose examinations reveal conditions described in -3410(a) is unacceptable for continued service until such conditions are corrected by one or more of the following:

(a) Adjustment and reexamination in accordance with IWF-2200 for conditions such as:

(1) Detached or loosened mechanical connections;

(2) Improper hot or cold settings of spring supports and constant load supports;

(3) Misalignment of supports; or

(4) Improper displacement settings of guides and stops.

(b) Repair/replacement activities in accordance with IWA-4000 and re-examination in accordance with IWF-2200;

8.7 Acceptance by Evaluation or Test

A component support or portion of a component support which is unacceptable per Table 8-4, for continued service may be analyzed and/or tested to the extent necessary to substantiate its integrity for its intended service.

8.8 Acceptance by Supplemental Examination

Components containing indications and/or relevant conditions shall be acceptable for continued service if the results of supplemental examinations meet the acceptance requirements of 8.1.

Examinations that detect flaws or evidence of degradation that requires evaluation in accordance with the requirements of 8.5 may be supplemented by other examination methods and techniques (IWA-2240) to determine the character of the flaw (i.e., size, shape, and orientation) or degradation. Visual examinations that detect surface flaws or areas that are suspect shall be supplemented by either surface or volumetric examination.

8.9 Acceptance Criteria in Course of Preparation

If acceptance criteria for a particular component, examination category, or examination method are not specified, defects that exceed the acceptance criteria for materials and welds specified in the Construction Code and/or Section III Edition applicable to the construction of the component shall be evaluated to determine disposition.

8.10 Additional Examinations

8.10.1 Class 1 Sample Expansion

The additional examination requirements identified in IWB-2430 shall be performed for service induced flaws or relevant conditions, and/or those construction or manufacturing defects determined by Nuclear Engineering to be detrimental to the quality or safety of the component/system only. When this situation exists, additional examinations shall include the following:

a. The additional examinations shall include an additional number of welds, areas, or parts included in the inspection item equal to the number of welds, areas, or parts included in the inspection item that were scheduled to be performed during the present inspection period. The additional examinations shall be selected from welds, areas, or parts of similar material and service. This additional selection may require inclusion of piping systems other than the one containing the flaw or relevant conditions.

b. If the additional examinations reveal flaws or relevant conditions exceeding the acceptance standards, the examinations shall be further extended to include additional examinations during the current outage. These additional examinations shall include the remaining number of welds, areas, or parts of similar material and service subject to the same type of flaw or relevant conditions.

Additional examinations will be performed before the end of the outage.

Note: Code Case N-586-1, Alternative additional examination requirements for Class 1, 2 and 3 piping, components and supports. (See Appendix I for requirements)

8.10.2 Class 2 Sample Expansion

The additional examination requirements identified in IWC-2430 shall be performed for service induced flaws or relevant conditions, and/or those construction or manufacturing defects determined by Nuclear Engineering to be detrimental to the quality or safety of the component/system only. When this situation exists, additional examinations shall include the following:

a. The additional examinations shall include an additional number of welds, areas, or parts included in the inspection item equal to 20% of the number of welds, areas, or parts included in the inspection item that were scheduled to be performed during the interval. The additional examinations shall be selected from welds, areas, or parts of similar material and service. This additional selection may require inclusion of piping systems other than the one containing the flaw or relevant conditions.

b. If the additional examinations reveal flaws or relevant conditions exceeding the acceptance standards, the examinations shall be further extended to include additional examinations during the current outage. These additional examinations shall include the remaining number of welds, areas, or parts of similar material and service subject to the same type of flaw or relevant conditions.

Additional examinations will be performed before the end of the outage.

Note: Code Case N-586-1, Alternative additional examination requirements for Class 1, 2 and 3 piping, components and supports. (See Appendix I for requirements)

8.10.3 Class 3 Sample Expansion

The additional examination requirements identified in IWD-2430 shall be performed for service induced flaws or relevant conditions, and/or those construction or manufacturing defects determined by Nuclear Engineering to be detrimental to the quality or safety of the component/system only. When this situation exists, additional

examinations shall include the following:

a. The additional examinations shall include an additional number of welds, areas, or parts included in the inspection item equal to 20% of the number of welds, areas, or parts included in the inspection item that were scheduled to be performed during the interval. The additional examinations shall be selected from welds, areas, or parts of similar material and service. This additional selection may require inclusion of piping systems other than the one containing the flaw or relevant conditions.

b. If the additional examinations reveal flaws or relevant conditions exceeding the acceptance standards, the examinations shall be further extended to include additional examinations during the current outage. The extent of the additional shall be determined by NMPNS based upon engineering evaluation of the root cause of the flaws or relevant conditions.

Additional examinations will be performed before the end of the outage.

Note: Code Case N-586-1, Alternative additional examination requirements for Class 1, 2 and 3 piping, components and supports. (See Appendix I for requirements)

8.10.4 Component Supports Sample Expansion

The additional examination requirements identified in IWF-2430 shall be performed for service induced defects/condition, and/or those construction or manufacturing defects determined by Nuclear Engineering to be detrimental to the quality or safety of the component/system only. When this situation exists, additional examinations shall include the following:

a. The additional examinations shall include the component supports immediately adjacent to those component supports for which corrective action is required. The additional examinations shall be extended to include additional supports within the system, equal in number and of the same type and function as those scheduled for examination during the inspection period.

b. If the additional examinations reveal flaws or relevant conditions exceeding the acceptance standards, the examinations shall be further extended to include additional examinations during the current outage. These additional examinations shall include the remaining component supports within the system of the same type and function.

c. When the additional examinations reveal flaws or relevant conditions, the examinations shall be extended during the current outage, to include all nonexempt supports potentially subject to the same failure modes that required corrective action. Also these additional examinations shall include nonexempt component supports in other systems when the support failures requiring corrective action indicate non-system related support failure modes.

Additional examinations will be performed before the end of the outage.

Note: Code Case N-586-1, Alternative additional examination requirements for Class 1, 2 and 3 piping, components and supports. (See Appendix I for requirements)

8.10.5 Class MC Sample Expansion

For ASME Code Class MC, see Containment Inspection plan and schedule CNG-NMP2-CISI-003.

8.10.6 IGSCC Sample Expansion

A. **IGSCC Categories A, B or C**

If one or more cracked welds in IGSCC Categories A, B. or C, are found by a sample inspection during the 10 year interval, an additional sample of the welds in that category shall be inspected, approximately equal in number to the original sample. This additional sample should be similar in distribution (according to pipe size, system, and location) to the original sample, unless it is determined that there is a technical reason to select a different distribution. If any cracked welds are found in this sample, all of the welds in that IGSCC Category should be inspected.

B. **IGSCC Category E**

If significant crack growth, or additional cracks are found during the inspection of one or more IGSCC Category E welds, all other Category E welds should be examined.

a. Significant crack growth for overlayed welds is defined as crack extension to deeper than 75% of the original wall thickness, or for cracks originally deeper than 75% of the pipe wall, evidence of crack growth into the effective weld overlay.

b. Significant crack growth for SI mitigated Category E welds is defined as growth to a length or depth exceeding the criteria for SI mitigation. (10% of circumference or 30% in depth).

Note: Based on discussions held with the BWRVIP during the public meeting, the NRC staff requested that the criteria for sample expansion for Category E welds (resistant material) be modified such that, for the first expansion, an equal number to the original inspection population be examined; for the second expansion, fifty percent (50%) of the total population is examined; and for the third expansion, the full population (100%) is examined.

C. **IGSCC Category D**

Category D weld expansions are limited to piping systems where cracking was identified.

If cracking is detected, the sample size will be expanded to a sample equal in number to the size of the initial sample. If cracking is detected in the additional sample, all remaining Category welds will be examined. Sample expansion can be limited, with technical justification, to the system or type component (i.e., safe-end to nozzle) in which flaws were detected. However, the sample size should include a number equal to the original sample or otherwise include all the welds within the system or component type that expansion is being limited.

8.10.7 Risk-Informed Sample Expansion

A. Examinations performed in accordance with -2500 that reveal flaws or relevant conditions exceeding the acceptance criteria of 8-1 shall be extended to include additional examinations. The additional examinations shall include piping structural elements with the same postulated failure mode and the same or higher failure potential.

1. The number of additional elements shall be the number of piping structural elements with the same postulated failure mode originally scheduled for that refueling outage.

2. The scope of the additional examinations may be limited to those High-Safety-Significant

(HSS) piping structural elements within systems, whose materials and service conditions are determined by an evaluation to have the same postulated failure mode as the piping structural element that contained the original flaw or relevant condition.

B. If the additional examinations required by -2430(a) reveal flaws or relevant conditions exceeding the acceptance standards, the examinations shall be further extended to include additional examinations.

1. These examinations shall include all remaining piping elements, whose postulated failure modes are the same as the piping structural elements originally examined.

2. An evaluation shall be performed to establish when those examinations are to be conducted. The evaluation must consider failure mode and potential.

Additional examinations will be performed before the end of the outage.

8.11 Defects Found Outside Section XI Examination

Defects/conditions that are found outside the course of an ASME Section XI examination, shall be compared against the acceptance standards of Tables 8-1 through 8-5, as applicable.

TABLE 8-1 - CLASS 1 ACCEPTANCE STANDARDS

EXAMINATION CATEGORY	COMPONENT OR PART EXAMINED	ACCEPTANCE STANDARD
B-A	Vessel Welds	IWB-3510
B-B	Vessel Welds	IWB-3510
B-D	Full Penetration Welded Nozzles in Vessels	IWB-3512
B-F, B-J	Dissimilar and Similar Metal Welds in Piping and Vessel Nozzles	IWB-3514
B-G-1	Bolting > 2" dia.	IWB-3515/3517
B-G-2	Bolting ≤ 2" dia.	IWB-3517
B-K	Welded Attachments for Vessels, Piping, Pumps & Valves	IWB-3516
B-L-1, B-M-1	Welds in Pumps & Valves	IWB-3518
B-L-2, B-M-2	Pump Casings & Valve Bodies	IWB-3519
B-N-1 B-N-2 B-N-3	Interior Surfaces & Internal Components of Reactor Vessels	IWB-3520
B-O	Control Rod Drive and Instrument Nozzle Housing Welds	IWB-3523
B-P	Pressure Retaining Boundary	IWB-3522
B-Q	Steam Generator Tubing	IWB-3521

TABLE 8-2 – CLASS 2 ACCEPTANCE STANDARDS

EXAMINATION CATEGORY	COMPONENT OR PART EXAMINED	ACCEPTANCE STANDARD
C-A	Welds in Pressure Vessels	IWC-3510
C-B	Vessel Nozzle Welds	IWC-3511
C-C	Welded Attachments for Vessels, Piping, Pumps and Valves	IWC-3512
C-D	Bolting	IWC-3513
C-F-1,C-F-2	Welds in Piping	IWC-3514
C-G	Welds in Pumps and Valves	IWC-3515
C-H	Pressure Retaining Components	IWC-3516

TABLE 8-3 - CLASS 3 ACCEPTANCE STANDARDS

EXAMINATION CATEGORY	COMPONENT OR PART EXAMINED	ACCEPTANCE STANDARD
D-A	Integral Attachments (VT-1)	Mfg. Code & Applicable Standards

* ASME Section XI Acceptance Standard in course of preparation. The requirements of IWC-3200 may be used.

TABLE 8-4 COMPONENT SUPPORT ACCEPTANCE STANDARDS

EXAMINATION CATEGORY	COMPONENT OR PART EXAMINED	ACCEPTANCE STANDARD
F-A	Supports	IWF-3410

SECTION 9 - RECORDS AND REPORTS

9.0 RECORDS AND REPORTS

This section provides the requirements for the preparation and submittal of In-service Inspection records and reports as required by the applicable Edition and Addenda of the ASME Boiler and Pressure Vessel Code. This section also addresses additional reporting requirements for IGSCC components.

9.1 General

Examinations, tests, replacements, and repair records are prepared in accordance with the requirements of the ASME Boiler and Pressure Vessel Code, Section XI.

As a alternate to the requirements of IWA-6000, NMPNS is implementing ASME Code Case N-532-4, "Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission, Section XI, Division 1".

9.2 Owner's Activity Report

An Owner's Activity Report Form OAR-1 (Figure 9-1), shall be prepared and certified upon completion of each refueling outage.

Each Form OAR-1 shall contain the following:

a. A listing of item(s) with flaws or relevant conditions that exceeded the acceptance criteria of Section XI and that required evaluation to determine acceptability for continued service shall be provided with the information and format of Table 1. The information is required whether or not the flaw or relevant condition was discovered during a scheduled examination or test.

b. An abstract for repair/replacement activities that were required due to an item containing a flaw or relevant condition that exceeded Section XI acceptance criteria shall be provided with the information and format of Table 2. This information is required even if the discovery of the flaw or relevant condition that necessitated the repair/replacement activity did not result from an examination or test required by Section XI. If no acceptance criteria for a particular item is not specified in Section XI, the provisions of IWA-3100(b) shall be used to determine which repair/replacement activities are required to be included in the abstract.

c. If no items met the criteria of 2(a) or (b), the term "None" should be recorded in the applicable table.

d. If there are multiple inspection plans with different intervals, periods, Editions or Addenda, they shall be identified on Form OAR-1.

e. Form OAR-1 shall be certified by the Owner and presented to the Inspector for the required signature.

9.3 Cover Sheet

Each Owner's Activity Report will have a cover sheet that provides the following information:

a. Date of document completion

b. Name and address of Owner

c. Name and address of generating plant

d. Name and number designation of the plant

e. Commercial service date for the unit

9.4 Owner's Activity Report Submittal

Each Form OAR-1 shall be submitted to the USNRC within 90 days of the completion of the refueling outage.

9.5 Reporting Requirements for IGSCC

If any cracks are identified that do not meet the criteria for continued operation without evaluation given in Section XI of the Code, USNRC approval of flaw evaluation and/or repairs in accordance with IWB-3000 and IWA-4000 is required.

9.6 Reporting Requirements for Class MC and CC

Reporting requirements for ASME Code Class MC and CC are incorporated in CNG-NMP2-CISI-003 Containment Inspection Plan and Schedule.

9.7 Reporting Requirements for NUREG 0619

NUREG 0619 is not applicable to Nine Mile Point Nuclear Station Unit 2.

9.8 Reporting Requirements for Risk-Informed Examinations

As Risk-Informed weld examinations are considered an alternative to the ASME Section XI requirements, the reporting requirements shall be as required for ASME Section XI welds.

FIGURE 9-1

FORM OAR-1
OWNER'S ACTIVITY REPORT

As required by the provisions of the ASME Code Case N-532-4 Page of

Report Number _____

Plant Nine Mile Point Nuclear Station, P. O. Box 63, Lycoming, New York 13093
(Name and Address of Plant)

Plant Unit 2 Commercial Service Date April 5, 1988 Refueling Outage Number RFO-02

Current Inspection Interval Third Inservice Inspection Interval April 5, 2008 to April 4, 2018
(1st, 2nd, 3rd, 4th, Other)

Current Inspection Period First Inservice Inspection Period April 5, 2008 to April 4, 2011
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the Inspection Plans 2001 Edition, through 2003 Addenda

Date and Revision of Inspection Plans CNG-NMP2-ISI-003, Revision 00, September 1, 2007

Edition and Addenda of ASME Section XI applicable to Repairs and Replacements, if different than the Inspection Plan ___
(if applicable)

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this report are correct: (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of _____ conform to the requirements of Section XI.
(refueling outage number)

Signed _____ Date _____
(General Supervisor – Corporate Engineering Programs)

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of _____ and employed by _____ of _____ have inspected the items described in this Owner's Activity Report and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

_____ Commissions _____
Inspector's Signature National Board, State, Province, and Endorsements

Date _____ 19____

FIGURE 9-1 (Continued)

TABLE 1

ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRE EVALUATION FOR CONTINUED SERVICE

As required by the provisions of the ASME Code Case N-532-4

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EXAMINATION CATEGORY	ITEM NUMBER	ITEM DESCRIPTION	EVALUATION DESCRIPTION

FIGURE 9-1 (Continued)

TABLE 2
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE
As required by the provisions of the ASME Code Case N-532-4

Page of

CODE CLASS	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER

FIGURE 9-2

FORM NIS-2A
REPAIR/REPLACEMENT CERTIFICATION RECORD
As required by the provisions of the ASME Code Case N-532-4

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OWNER'S CERTIFICATE OF COMPLIANCE

I certify that the _____ activities represented by Repair/Replacement Plan Number _____ conforms to the requirements of Section XI.

Edition and Addenda of Section XI used: _____

Code Case used: _____
(if applicable)

Signed _____ Date _____ ,19____
Owner or Owner's designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of _____ and employed by _____ of _____ have inspected the items described in Repair/Replacement Plan No. _____ , and state that to the best of my knowledge and belief, the Owner has performed all the activities described in the Repair/Replacement Plan in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the activities described in the Repair/Replacement Plan. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

_____ Commissions _____
Inspector's Signature — National Board, State, Province, and Endorsements

Date _____ 19____

Figure 9-3 – ASME Section XI Summary Table

Date: 09/28/07
Revision: 00
Code Edition: A03

Nine Mile Point – Unit 2
Document ID / Section XI Summary

Page #

B-A Pressure Retaining Welds in Reactor Vessel

Item Number	Item Description	Zone	Tbl	No of Comp	No Req	Number of Components Scheduled / Completed 1st. Period	2nd. Period	3rd. Period
a.	b	c	d	e	f	g, / h, I	j, / k,I	m, / n,o

Legend

Date: Date of Summary Table print out
Revision: Revision number of inspection plan and schedule
Code Edition: A03 (2003 Addenda

a	ASME Examination Item Number
b.	Examination Item Description
c.	Zone or system identification number
d.	Table number identifier
e.	Number of components subject to examination
f.	Number of components required for the interval
g / h, I	Number items scheduled in first period / Number items completed in first period, Percent completed for firdt period
j / k, I	Number items scheduled in second period / Number items completed in second period, Percent completed for second period
m / n, o	Number items scheduled in third period / Number items completed in third period, Percent completed for third period

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Examination Category B-D 2

Examination Category B-F 3

Examination Category B-G-1 4

Examination Category B-G-2 5

Examination Category B-J 6

Examination Category B-K 7

Examination Category B-L-2 8

Examination Category B-M-2 9

Examination Category B-N-1 10

Examination Category B-N-2 11

Examination Category B-O 12

Examination Category B-P 13

ASME CODE CLASS 1
SUMMARY TABLES
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B-A PRESSURE RETAINING WELDS IN REACTOR VESSEL

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B1.11	CIRCUMFERENTIAL SHELL WELDS All Welds, 100% weld length, Deferral permissible	006	A	4	4	1 / 0	25.0 %	0 / 0	25.0 %	3 / 0	100.0 %
B1.12	LONGITUDINAL SHELL WELDS All Welds, 100% of weld length. Deferral permissible	006	A	12	12	4 / 0	33.3 %	4 / 0	66.7 %	4 / 0	100.0 %
B1.21	CIRCUMFERENTIAL HEAD WELDS Access. length of All welds, 100% weld length, Deferral permissible.	006	A	4	4	2 / 0	50.0 %	1 / 0	75.0 %	1 / 0	100.0 %
B1.22	MERIDIONAL HEAD WELDS Accessible length of All welds, 100% weld length, Deferral permissible.	006	A	12	12	4 / 0	33.3 %	5 / 0	75.0 %	3 / 0	100.0 %
B1.30	SHELL-TO-FLANGE WELD 100% of weld length, Partial Deferral Permissable See footnote(3) and (5).	006	A	2	2	1 / 0	50.0 %	0 / 0	50.0 %	1 / 0	100.0 %
B1.40	HEAD-TO-FLANGE WELD 100% of weld length, Partial Deferral Permissable see footnote(4) and (5).	006	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
	Category Total:			35	35	12 / 0	34.3 %	11 / 0	65.7 %	12 / 0	100.0 %

B-D FULL PENETRATION WELDS OF NOZZLES IN VESSELS (INSPECTION PROGRAM B)

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B3.100	REACTOR VESSEL-NOZZLE INSIDE RADIUS SECTION										
	All Nozzles, See notes (2) and (5), 25% but not more than 50% First Period										
		006-N1	A	2	2	0 / 0	0.0 %	0 / 0	0.0 %	2 / 0	100.0 %
		006-N10	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		006-N16	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N18	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		006-N2	A	10	10	6 / 0	60.0 %	0 / 0	60.0 %	4 / 0	100.0 %
		006-N3	A	4	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N4	A	6	6	3 / 0	50.0 %	1 / 0	66.7 %	2 / 0	100.0 %
		006-N5	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N6	A	3	3	2 / 0	66.7 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N7	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		006-N8	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		006-N9	A	2	2	1 / 0	50.0 %	0 / 0	50.0 %	1 / 0	100.0 %
		Item Total:		33	28	13 / 0	46.4 %	5 / 0	64.3 %	10 / 0	100.0 %
B3.200	REACTOR VESSEL-NOZZLE INSIDE RADIUS SECTION										
	All nozzles, Code Case N-648-1 VT in lieu of UT										
		006-N18	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N2	A	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		006-N3	A	2	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %
		006-N6	A	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		006-N7	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		006-N8	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N9	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		12	5	0 / 0	0.0 %	3 / 0	60.0 %	2 / 0	100.0 %
B3.90	REACTOR VESSEL-NOZZLE-TO-VESSEL WELDS										
	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval, See note (2), (3), and (5)										
		006-N1	A	2	2	0 / 0	0.0 %	0 / 0	0.0 %	2 / 0	100.0 %
		006-N10	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		006-N16	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N18	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N2	A	10	10	6 / 0	60.0 %	0 / 0	60.0 %	4 / 0	100.0 %
		006-N3	A	4	4	1 / 0	25.0 %	2 / 0	75.0 %	1 / 0	100.0 %
		006-N4	A	6	6	3 / 0	50.0 %	1 / 0	66.7 %	2 / 0	100.0 %
		006-N5	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N6	A	3	3	2 / 0	66.7 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N7	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		006-N8	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-N9	A	2	2	1 / 0	50.0 %	0 / 0	50.0 %	1 / 0	100.0 %
		Item Total:		33	33	13 / 0	39.4 %	8 / 0	63.6 %	12 / 0	100.0 %
		Category Total:		78	66	26 / 0	39.4 %	16 / 0	63.6 %	24 / 0	100.0 %

B-F PRESSURE RETAINING DISSIMILAR METAL WELDS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B5.10	REACTOR VESSEL-NOZZLE-TO-SAFE END BUTT WELDS NPS 4 or LARGER All welds, May coincide with Cat B-D examinations, incorporated under RI-ISI program, See Notes 1, 2										
		002	A	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		003	A	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		005	A	6	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		008	A	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		011	A	12	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	A	6	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		30	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
B5.20	REACTOR VESSEL-NOZZLE-TO-SAFE END BUTT WELDS, LESS THAN NPS 4 All welds May coincide with Category B-D examinations, See note 1										
		007	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Category Total:		31	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %

B-G-1 PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN DIAMETER

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B6.10	REACTOR VESSEL-CLOSURE HEAD NUTS All nuts, Deferral permissible.										
		006	A	76	76	25 / 0	32.9 %	25 / 0	65.8 %	26 / 0	100.0 %
B6.180	PUMPS-BOLTS AND STUDS All bolts & studs Limit to one pump among group of valves and under Cat B-L-2										
		011-P1A	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		011-P1B	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
B6.190	PUMPS-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED All flange surf, Limit to one flange among group of flanges and under Cat B-L-2										
		011-P1A	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		011-P1B	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
B6.20	REACTOR VESSEL-CLOSURE STUDS All studs, Deferral permissible										
		006	A	76	76	25 / 0	32.9 %	25 / 0	65.8 %	26 / 0	100.0 %
B6.200	PUMPS-NUTS, BUSHINGS, AND WASHERS All nuts, bush. & wash, Limit to one pump among group pumps and Cat B-L-2										
		011-P1A	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		011-P1B	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
B6.210	VALVES-BOLTS AND STUDS All bolts and studs, Limited to one valve among group of valves and under Category BM-2,										
		013-V14	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
B6.220	VALVES-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED All flange surfaces, Limited to valve selected under Category BM-2										
		013-V14	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
B6.40	REACTOR VESSEL-THREADS IN FLANGE All threads in flange, Deferral permissible										
		006	A	76	76	25 / 0	32.9 %	25 / 0	65.8 %	26 / 0	100.0 %
B6.50	REACTOR VESSEL-CLOSURE WASHERS, BUSHINGS All washers & Bushings, Deferral permissible										
		006	A	77	77	26 / 0	33.8 %	25 / 0	66.2 %	26 / 0	100.0 %
		Category Total:		313	308	103 / 0	33.4 %	100 / 0	65.9 %	105 / 0	100.0 %

B-G-2 PRESSURE RETAINING BOLTING, 2 INCHES AND LESS IN DIAMETER

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B7.10	REACTOR VESSEL-BOLTS, STUDS, AND NUTS Limited under Cat. B-B. Only when disassembled or removed. Deferral not permissible										
		006	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
B7.50	PIPING-BOLTS, STUDS, AND NUTS One flange among group of flanges and only when disassembled or removed										
		007	A	5	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		012	A	3	2	1 / 0	50.0 %	0 / 0	50.0 %	1 / 0	100.0 %
		013	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		013-V13	A	18	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		Item Total:		28	5	2 / 0	40.0 %	1 / 0	60.0 %	2 / 0	100.0 %
B7.70	VALVES-BOLTS, STUDS, AND NUTS Limited under B-M-2 and only when disassembled or removed										
		002-V1	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		002-V2	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		002-V3	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		003-V4	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		003-V5	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		003-V6	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		005-V7	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		005-V8	A	4	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		005-V9	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		007-V10	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		007-V11	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		007-V12	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		011-V17	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		011-V18	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		011-V19	A	8	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		012-V33	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		012-V34	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		012-V35	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		013-V13	A	18	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		013-V14	A	8	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		013-V15	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		013-V16	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-V20	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V21	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V22	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V23	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V24	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V25	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V26	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V27	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V28	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V29	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V30	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V31	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V32	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		Item Total:		84	35	11 / 0	31.4 %	12 / 0	65.7 %	12 / 0	100.0 %
		Category Total:		113	41	13 / 0	31.7 %	14 / 0	65.9 %	14 / 0	100.0 %

B-J PRESSURE RETAINING WELDS IN PIPING

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B9.11	CIRCUMFERENTIAL PIPE WELDS, NPS 4 or LARGER At least 25% of the welds										
		002	A	20	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		003	A	19	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		005	A	93	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		006	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	A	67	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		011	A	92	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		012	A	106	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	A	98	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	A	140	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		636	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
B9.21	CIRCUMFERENTIAL PIPE WELDS, LESS THAN NPS 4 At least 25% of the welds										
		004	A	3	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		008	A	8	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		009	A	50	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		010	A	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		012	A	42	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	A	101	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	A	12	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		219	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
B9.31	BRANCH CONNECTION WELDS, NPS 4 or LARGER At least 25% of the welds										
		005	A	6	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		011	A	14	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		012	A	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	A	19	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		42	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
B9.32	BRANCH CONNECTION WELDS, LESS THAN NPS 4 At least 25%										
		002	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		012	A	3	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	A	10	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	A	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		19	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
B9.40	SOCKET WELDS At least 25% of the welds										
		008	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		012	A	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	A	25	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	A	8	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		38	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Category Total:		954	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %

B-K INTEGRAL ATTACHMENTS FOR VESSELS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B10.10	PRESSURE VESSEL-INTEGRALLY WELDED ATTACHMENTS										
	100% of the length of the welded attachments and only one attachment amoung group of vessels										
		006	A	7	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
B10.20	PIPING-INTEGRALLY WELDED ATTACHMENTS										
	10% of all Welded attachments associated with component supports selected under IWF2510										
		002	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		003	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		005	A	17	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %
		007	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		011	A	4	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		012	A	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	A	36	4	3 / 0	75.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014	A	4	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		Item Total:		66	8	3 / 0	37.5 %	3 / 0	75.0 %	2 / 0	100.0 %
	Category Total:			73	9	3 / 0	33.3 %	3 / 0	66.7 %	3 / 0	100.0 %

B-L-2 PUMP CASINGS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B12.20	PUMPS-PUMP CASINGS										
	Internal surfaces of one pump among group of pumps and only when disassembled for maint repair or										
		011-P1A	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		011-P1B	A	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		Category Total:		2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %

B-M-2 VALVE BODIES

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B12.50	VALVES-VALVE BODIES EXCEEDING 4 INCHES NOMINAL PIPE SIZE Internal surfaces of one valve among each group of valves if diss for maint, repair or Vol exam, on										
		002-V1	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		002-V2	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		002-V3	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		003-V4	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		003-V5	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		003-V6	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		005-V7	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		005-V8	A	4	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		005-V9	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		007-V10	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		007-V11	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		007-V12	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		011-V17	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		011-V18	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		011-V19	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		012-V33	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		012-V34	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		012-V35	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		013-V13	A	18	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		013-V14	A	8	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		013-V15	A	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		013-V16	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-V20	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V21	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V22	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V23	A	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V24	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V25	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V26	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V27	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V28	A	2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V29	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V30	A	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V31	A	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V32	A	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
	Item Total:			78	35	11 / 0	31.4 %	12 / 0	65.7 %	12 / 0	100.0 %
	Category Total:			78	35	11 / 0	31.4 %	12 / 0	65.7 %	12 / 0	100.0 %

B-N-1 INTERIOR OF REACTOR VESSEL

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
B13.10	REACTOR VESSEL-VESSEL INTERIOR First refuel outage then once each inspection period areas above & below reactor core	006	A	114	342	114 / 0 33.3 %	114 / 0 66.7 %	114 / 0 100.0 %
	Category Total:			114	342	114 / 0 33.3 %	114 / 0 66.7 %	114 / 0 100.0 %

B-N-2 INTEGRALLY WELDED CORE SUPPORT STRUCTURES AND INTERIOR ATTACHMENTS TO REACTOR VESSEL

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
B13.20	REACTOR VESSEL (BWR)-INTERIOR ATTACHMENTS WITHIN BELTLINE REGION) All welds Deferral Permissable	006	A	2	2	2 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
B13.30	REACTOR VESSEL (BWR)-INTERIOR ATTACHMENTS BEYOND BELTLINE REGION) Accessible welds	006	A	9	9	3 / 0	33.3 %	3 / 0	66.7 %	3 / 0	100.0 %
B13.40	REACTOR VESSEL (BWR)-CORE SUPPORT STRUCTURE Accessible surfaces	006	A	4	4	0 / 0	0.0 %	2 / 0	50.0 %	2 / 0	100.0 %
	Category Total:			15	15	5 / 0	33.3 %	5 / 0	66.7 %	5 / 0	100.0 %

B-O PRESSURE RETAINING WELDS IN CONTROL ROD HOUSINGS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
B14.10	REACTOR VESSEL-WELDS IN CONTROL ROD DRIVE HOUSINGS 10% peripheral CRD Housings, Deferral Permissable	006	A	80	14	4 / 0 28.6 %	4 / 0 57.1 %	6 / 0 100.0 %
	Category Total:			80	14	4 / 0 28.6 %	4 / 0 57.1 %	6 / 0 100.0 %

B-P ALL PRESSURE RETAINING COMPONENTS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
B15.10	Pressure Retaining Components System Leakage Test each Refueling Outage	006	A	4	20	4 / 0 20.0 %	8 / 0 60.0 %	8 / 0 100.0 %
	Category Total:			4	20	4 / 0 20.0 %	8 / 0 60.0 %	8 / 0 100.0 %

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C-A PRESSURE RETAINING WELDS IN PRESSURE VESSELS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
C1.10	SHELL CIRCUMFERENTIAL WELDS Welds at gross struct. discon. only. Limit to 1 simil. vess. amoung vess.										
		014-E1A	B	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-E1B	B	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		2	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
C1.20	HEAD CIRCUMFERENTIAL WELDS Head to shell weld limit to 1 sim. vess. amoung vess.										
		014-E1A	B	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-E1B	B	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		Category Total:		4	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %

C-B PRESSURE RETAINING NOZZLE WELDS IN VESSELS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
C2.21	NOZZLE-TO-SHELL (NOZZLE TO HEAD or NOZ TO NOZ) WELD > 1/2 IN. NOMINAL THICKNESS WITHOUT REINFORCING PLATE All nozzles at terminal ends of piping runs selected under Category GF, Limited to one vessel										
		014-E1A	B	2	2	0 / 0	0.0 %	2 / 0	100.0 %	0 / 0	100.0 %
		014-E1B	B	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		4	2	0 / 0	0.0 %	2 / 0	100.0 %	0 / 0	100.0 %
C2.22	NOZZLE INSIDE RADIUS SECTION> 1/2 IN. NOMINAL THICKNESS WITHOUT REINFORCING PLATE All nozzles at terminal ends of piping runs selected under Category GF, Limit to one vessel										
		014-E1A	B	2	2	0 / 0	0.0 %	0 / 0	0.0 %	2 / 0	100.0 %
		014-E1B	B	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		4	2	0 / 0	0.0 %	0 / 0	0.0 %	2 / 0	100.0 %
		Category Total:		8	4	0 / 0	0.0 %	2 / 0	50.0 %	2 / 0	100.0 %

C-C INTEGRAL ATTACHMENTS FOR VESSELS, PIPING, PUMPS, AND VALVES

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
C3.10	PRESSURE VESSELS-INTEGRALLY WELDED ATTACHMENTS										
	Only one welded attachment shall be selected among group of vessels or single vessel										
		014-E1A	B	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-E1B	B	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
C3.20	PIPING-INTEGRALLY WELDED ATTACHMENTS										
	10% of welded attachments associated with component supports selected under IWF2510										
		002	B	7	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		003	B	4	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		007	B	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		010	B	14	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		013	B	10	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014	B	33	4	0 / 0	0.0 %	2 / 0	50.0 %	2 / 0	100.0 %
		Item Total:		70	10	3 / 0	30.0 %	4 / 0	70.0 %	3 / 0	100.0 %
C3.30	PUMPS-INTEGRALLY WELDED ATTACHMENTS										
	10% of welded attachments associated with component supports selected under IWF2510										
		003-P1	B	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		007-P1	B	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-P1A	B	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-P1B	B	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014-P1C	B	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		5	3	1 / 0	33.3 %	1 / 0	66.7 %	1 / 0	100.0 %
		Category Total:		77	14	4 / 0	28.6 %	5 / 0	64.3 %	5 / 0	100.0 %

C-D PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN DIAMETER

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
C4.30	PUMPS-BOLTS AND STUDS Limited to one bolted connection among group of bolted connections (one pump in a group of pumps)							
		003-P1	B	1	1	0 / 0 0.0 %	1 / 0 100.0 %	0 / 0 100.0 %
	Category Total:			1	1	0 / 0 0.0 %	1 / 0 100.0 %	0 / 0 100.0 %

C-F-1 PRESSURE RETAINING WELDS IN AUSTENITIC STEEL OR HIGH ALLOY PIPING

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
C5.11	CIRCUMFERENTIAL PIPE WELDS > 3/8 IN. NOMINAL WALL THICKNESS FOR PIPING >NPS 4 7.5% but not less than 28 welds										
		002	B	6	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		003	B	6	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	B	7	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	B	26	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		45	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Category Total:		45	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %

C-F-2 PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL PIPING

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
C5.51	CIRCUMFERENTIAL WELD 7.5%, But not less than 28 welds										
		001	B	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		002	B	156	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		003	B	109	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	B	201	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		010	B	76	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	B	87	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	B	762	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		1395	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
C5.61	CIRCUMFERENTIAL WELDS> 1/5" NOMINAL WALL THICKNESS FOR PIPING> NPS 2 AND < NPS 4 7.5%, But not less than 28 welds										
		013	B	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
C5.70	SOCKET WELDS 7.5%, But not less than 28 welds										
		014	B	12	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
C5.81	CIRCUMFERENTIAL PIPE BRANCH CONNECTIONS OF BRANCH PIPING> NPS 2 7.5%, But not less than 28 welds										
		002	B	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		003	B	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	B	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	B	5	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	B	23	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		34	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Category Total:		1443	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %

C-G PRESSURE RETAINING WELDS IN PUMPS AND VALVES

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
C6.10	PUMP CASING WELDS Only one pump among each group of pump										
		002-P1	B	10	10	3 / 0	30.0 %	0 / 0	30.0 %	7 / 0	100.0 %
		003-P1	B	7	7	0 / 0	0.0 %	3 / 0	42.9 %	4 / 0	100.0 %
		014-P1A	B	8	8	0 / 0	0.0 %	0 / 0	0.0 %	8 / 0	100.0 %
		014-P1B	B	8	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014-P1C	B	8	8	3 / 0	37.5 %	0 / 0	37.5 %	5 / 0	100.0 %
		Item Total:		41	33	6 / 0	18.2 %	3 / 0	27.3 %	24 / 0	100.0 %
C6.20	VALVE BODY WELDS Only one valve among each group of valves										
		003-V01	B	3	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		003-V02	B	3	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		003-V03	B	3	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		003-V04	B	3	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-V05	B	4	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V06	B	3	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		014-V07	B	6	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-V08	B	3	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-V09	B	4	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		Item Total:		32	9	3 / 0	33.3 %	3 / 0	66.7 %	3 / 0	100.0 %
		Category Total:		73	42	9 / 0	21.4 %	6 / 0	35.7 %	27 / 0	100.0 %

C-H ALL PRESSURE RETAINING COMPONENTS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
C7.10	Pressure Retaining Components System Leakage Test each inspection period	-	B	1	3	1 / 0 33.3 %	1 / 0 66.7 %	1 / 0 100.0 %
	Category Total:			1	3	1 / 0 33.3 %	1 / 0 66.7 %	1 / 0 100.0 %

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D-A INTEGRAL ATTACHMENTS FOR CLASS 3 VESSELS, PIPING, PUMPS, AND VALVES

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
D1.20	PIPING WELDED ATTACHMENTS 100% of weld length, 10% sample, proportional to number connected to piping in each system										
		014	C	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		015	C	16	2	0 / 0	0.0 %	0 / 0	0.0 %	2 / 0	100.0 %
		016	C	12	2	1 / 0	50.0 %	0 / 0	50.0 %	1 / 0	100.0 %
		017	C	177	18	6 / 0	33.3 %	9 / 0	83.3 %	3 / 0	100.0 %
		018	C	28	3	1 / 0	33.3 %	0 / 0	33.3 %	2 / 0	100.0 %
		019	C	4	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		Item Total:		238	27	9 / 0	33.3 %	9 / 0	66.7 %	9 / 0	100.0 %
		Category Total:		238	27	9 / 0	33.3 %	9 / 0	66.7 %	9 / 0	100.0 %

D-B ALL PRESSURE RETAINING COMPONENTS

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
D2.10	Pressure Retaining Components System Leakage Test each inspection period	-	C	1	3	1 / 0 33.3 %	1 / 0 66.7 %	1 / 0 100.0 %
	Category Total:			1	3	1 / 0 33.3 %	1 / 0 66.7 %	1 / 0 100.0 %

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F-A **Class 1 Piping Supports**

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
F1.10A	25% of Class 1 One Directional Categorized to identify support types by component function A, B, C, etc										
		002	D	5	2	1 / 0	50.0 %	0 / 0	50.0 %	1 / 0	100.0 %
		003	D	2	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		005	D	7	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		007	D	13	4	1 / 0	25.0 %	1 / 0	50.0 %	2 / 0	100.0 %
		009	D	6	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		012	D	20	5	1 / 0	20.0 %	2 / 0	60.0 %	2 / 0	100.0 %
		013	D	42	11	4 / 0	36.4 %	3 / 0	63.6 %	4 / 0	100.0 %
		014	D	19	5	1 / 0	20.0 %	2 / 0	60.0 %	2 / 0	100.0 %
		Item Total:		114	32	10 / 0	31.3 %	10 / 0	62.5 %	12 / 0	100.0 %
F1.10B	25% of Class 1 Multidirectional Categorized to identify support types by component function A, B, C, etc,										
		005	D	5	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		007	D	7	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		009	D	8	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %
		012	D	6	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		013	D	21	6	1 / 0	16.7 %	1 / 0	33.3 %	4 / 0	100.0 %
		014	D	6	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %
		Item Total:		53	16	4 / 0	25.0 %	6 / 0	62.5 %	6 / 0	100.0 %
F1.10C	25% of Class 1 Allows Thermal Movement Categorized to identify support types by component function A, B, C, etc,										
		002	D	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		003	D	2	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		004	D	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		005	D	18	5	1 / 0	20.0 %	1 / 0	40.0 %	3 / 0	100.0 %
		007	D	7	2	0 / 0	0.0 %	2 / 0	100.0 %	0 / 0	100.0 %
		009	D	3	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		011	D	10	3	1 / 0	33.3 %	2 / 0	100.0 %	0 / 0	100.0 %
		012	D	14	4	1 / 0	25.0 %	2 / 0	75.0 %	1 / 0	100.0 %
		013	D	20	5	2 / 0	40.0 %	2 / 0	80.0 %	1 / 0	100.0 %
		014	D	16	4	2 / 0	50.0 %	1 / 0	75.0 %	1 / 0	100.0 %
		Item Total:		92	27	8 / 0	29.6 %	12 / 0	74.1 %	7 / 0	100.0 %
F1.20A	15% of Class 2 One Directional Categorized to identify support types by component function A, B, C, etc.										
		002	E	41	7	1 / 0	14.3 %	2 / 0	42.9 %	4 / 0	100.0 %
		003	E	22	4	1 / 0	25.0 %	2 / 0	75.0 %	1 / 0	100.0 %
		007	E	16	3	1 / 0	33.3 %	1 / 0	66.7 %	1 / 0	100.0 %
		013	E	12	2	1 / 0	50.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014	E	158	25	7 / 0	28.0 %	11 / 0	72.0 %	7 / 0	100.0 %
		Item Total:		249	41	11 / 0	26.8 %	17 / 0	68.3 %	13 / 0	100.0 %
F1.20B	15% of Class 2 Multidirectional Categorized to identify support types by component function A, B, C, etc.										
		002	E	31	5	2 / 0	40.0 %	2 / 0	80.0 %	1 / 0	100.0 %
		003	E	13	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %
		007	E	17	3	0 / 0	0.0 %	0 / 0	0.0 %	3 / 0	100.0 %
		010	E	37	6	3 / 0	50.0 %	2 / 0	83.3 %	1 / 0	100.0 %
		013	E	7	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %
		014	E	70	11	4 / 0	36.4 %	1 / 0	45.5 %	6 / 0	100.0 %
		Item Total:		175	29	9 / 0	31.0 %	7 / 0	55.2 %	13 / 0	100.0 %

F-A **Class 2 Piping Supports**

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
F1.20C	15% of Class 2 Allows Thermal Movement Categorized to identify support types by component function A, B, C, etc.							
		001	E	1	1	1 / 0 100.0 %	0 / 0 100.0 %	0 / 0 100.0 %
		002	E	10	2	1 / 0 50.0 %	0 / 0 50.0 %	1 / 0 100.0 %
		003	E	6	1	0 / 0 0.0 %	1 / 0 100.0 %	0 / 0 100.0 %
		007	E	10	2	0 / 0 0.0 %	1 / 0 50.0 %	1 / 0 100.0 %
		013	E	19	3	3 / 0 100.0 %	0 / 0 100.0 %	0 / 0 100.0 %
		014	E	71	11	4 / 0 36.4 %	4 / 0 72.7 %	3 / 0 100.0 %
		Item Total:		117	20	9 / 0 45.0 %	6 / 0 75.0 %	5 / 0 100.0 %
F1.30A	10% of Class 3 One Directional Categorized to identify types by component support function A, B, C, etc. within each system							
		014	F	3	1	0 / 0 0.0 %	0 / 0 0.0 %	1 / 0 100.0 %
		015	F	26	3	1 / 0 33.3 %	0 / 0 33.3 %	2 / 0 100.0 %
		016	F	70	7	3 / 0 42.9 %	1 / 0 57.1 %	3 / 0 100.0 %
		017	F	208	20	7 / 0 35.0 %	7 / 0 70.0 %	6 / 0 100.0 %
		018	F	22	3	1 / 0 33.3 %	1 / 0 66.7 %	1 / 0 100.0 %
		019	F	4	1	1 / 0 100.0 %	0 / 0 100.0 %	0 / 0 100.0 %
		Item Total:		333	35	13 / 0 37.1 %	9 / 0 62.9 %	13 / 0 100.0 %
F1.30B	10% of Class 3 Multidirectional Categorized to identify types by component support function A, B, C, etc. within each system							
		012	F	1	1	0 / 0 0.0 %	1 / 0 100.0 %	0 / 0 100.0 %
		015	F	3	1	1 / 0 100.0 %	0 / 0 100.0 %	0 / 0 100.0 %
		016	F	84	9	3 / 0 33.3 %	1 / 0 44.4 %	5 / 0 100.0 %
		017	F	254	26	12 / 0 46.2 %	6 / 0 69.2 %	8 / 0 100.0 %
		018	F	32	4	4 / 0 100.0 %	0 / 0 100.0 %	0 / 0 100.0 %
		019	F	12	2	1 / 0 50.0 %	1 / 0 100.0 %	0 / 0 100.0 %
		Item Total:		386	43	21 / 0 48.8 %	9 / 0 69.8 %	13 / 0 100.0 %
F1.30C	10% of Class 3 Allows Thermal Movement Categorized to identify types by component support function A, B, C, etc. within each system							
		012	F	1	1	0 / 0 0.0 %	1 / 0 100.0 %	0 / 0 100.0 %
		016	F	9	1	1 / 0 100.0 %	0 / 0 100.0 %	0 / 0 100.0 %
		017	F	34	4	2 / 0 50.0 %	0 / 0 50.0 %	2 / 0 100.0 %
		018	F	3	1	1 / 0 100.0 %	0 / 0 100.0 %	0 / 0 100.0 %
		Item Total:		47	7	4 / 0 57.1 %	1 / 0 71.4 %	2 / 0 100.0 %
F1.40A	100% of the supports, For multiple components, only one of multiple components required Only one of the multiple components are required							
		011-P1A	G	2	2	0 / 0 0.0 %	0 / 0 0.0 %	2 / 0 100.0 %
		011-P1B	G	2	0	0 / 0 0.0 %	0 / 0 0.0 %	0 / 0 0.0 %
		Item Total:		4	2	0 / 0 0.0 %	0 / 0 0.0 %	2 / 0 100.0 %

F-A **Supports Other Than Piping Supports**

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
F1.40B	100% of the supports, For multiple components, only one of multiple components required Only one of the multiple components are required										
		002-P1	G	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		003-P1	G	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		006-RPV	G	7	7	2 / 0	28.6 %	3 / 0	71.4 %	2 / 0	100.0 %
		007-P1	G	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		014-E1A	G	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-E1B	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014-P1A	G	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014-P1B	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014-P1C	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		016-E1A	G	1	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		016-E1B	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		016-P1A	G	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		016-P1B	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		017-P1A	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		017-P1B	G	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		017-P1C	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		017-P1D	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		017-P1E	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		017-P1F	G	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		25	15	4 / 0	26.7 %	6 / 0	66.7 %	5 / 0	100.0 %
F1.40C	100% of the supports, For multiple components, only one of multiple components required Only one of the multiple omponents are required										
		011-P1A	G	4	4	0 / 0	0.0 %	4 / 0	100.0 %	0 / 0	100.0 %
		011-P1B	G	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		8	4	0 / 0	0.0 %	4 / 0	100.0 %	0 / 0	100.0 %
		Category Total:		1603	271	93 / 0	34.3 %	87 / 0	66.4 %	91 / 0	100.0 %

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APPENDIX E - IGSCC 88-01 SUMMARY TABLES

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Examination Category D 29

Examination Category E 30

IGSCC GENERIC LETTER 88-01
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GL-A **Resistant Materials**

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
G-L-A1	USNRC Generic Letter 88-01, Supplement 1, Class 1, UT 25% every 10 years (at least 12% in 6 years, incorporated under RI-ISI Program										
		008	-	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		011	-	105	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	-	6	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		113	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Category Total:		113	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %

GL-D **Non-resistant Materials; No Stress Improvement**

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
G-L-D1	USNRC Generic Letter 88-01, Supplement 1, Class 1 UT At least 100% every 3 refueling cycles, 100% every 6 years BWRVIP-75										
		002	-	1	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		003	-	2	2	0 / 0	0.0 %	2 / 0	100.0 %	0 / 0	100.0 %
		005	-	5	10	4 / 0	40.0 %	1 / 0	50.0 %	5 / 0	100.0 %
		008	-	2	4	1 / 0	25.0 %	1 / 0	50.0 %	2 / 0	100.0 %
		011	-	13	26	6 / 0	23.1 %	7 / 0	50.0 %	13 / 0	100.0 %
		012	-	18	36	18 / 0	50.0 %	0 / 0	50.0 %	18 / 0	100.0 %
		014	-	6	12	4 / 0	33.3 %	2 / 0	50.0 %	6 / 0	100.0 %
		Item Total:		47	91	33 / 0	36.3 %	14 / 0	51.6 %	44 / 0	100.0 %
	Category Total:			47	91	33 / 0	36.3 %	14 / 0	51.6 %	44 / 0	100.0 %

GL-E **Known crack, but reinforced by weld overlay**

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period	2nd Period	3rd Period
G-L-E1	Once every two refueling cycles 25% every 10 years, BWRVIP-75							
		002	-	1	2	0 / 0 0.0 %	1 / 0 50.0 %	1 / 0 100.0 %
		005	-	1	1	0 / 0 0.0 %	1 / 0 100.0 %	0 / 0 100.0 %
		Item Total:		2	3	0 / 0 0.0 %	2 / 0 66.7 %	1 / 0 100.0 %
		Category Total:		2	3	0 / 0 0.0 %	2 / 0 66.7 %	1 / 0 100.0 %

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APPENDIX F - RISK-INFORMED SUMMARY TABLES

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Examination Item R1.20 31

CLASS 2 PIPING

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Examination Category R-B 33

CLASS 1 PIPING

Examination Item R1.21 33

CLASS 2 PIPING

Examination Item R2.21 33

Examination Category R-C 34

CLASS 1 BER PIPING

Examination Item R1.11 34
Examination Item R1.18 34
Examination Item R1.20 34

CLASS 2, 3 and 4 BER PIPING

Examination Item R2.20 34
Examination Item R3.20 34
Examination Item R4.20 34

Systems subject to examination requirements of this Appendix are identified in the Table below:

System Descriptions	System Abbreviations	System Identification Number
Auxiliary Steam	ASS	001
High Pressure Core Spray System	CSH	002
Low Pressure Core Spray	CSL	003
Reactor Building Equipment Drains	DER	004
Feedwater System	FWS	005
Reactor Pressure Vessel	RPV	006
Reactor Core Isolation Cooling	ICS	007
Reactor Vessel Instrumentation System	ISC	008
Standby Liquid Control System	SLS	009
Control Rod Drive Hydraulic System	RDS	010
Reactor Recirculation System	RCS	011
Reactor Water Cleanup System	WCS	012
Main Steam System	MSS	013
Residual Heat Removal System	RHS	014

ALTERNATIVE RISK-INFORMED
SUMMARY TABLES
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R-A Risk-Informed Piping Examinations

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
R1.11	Elements Subject to Thermal Fatigue Code Case N-578-1, Class 1										
		002	-	11	3	0 / 0	0.0 %	3 / 0	100.0 %	0 / 0	100.0 %
		003	-	8	2	0 / 0	0.0 %	2 / 0	100.0 %	0 / 0	100.0 %
		004	-	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		005	-	46	14	4 / 0	28.6 %	5 / 0	64.3 %	5 / 0	100.0 %
		007	-	13	4	0 / 0	0.0 %	4 / 0	100.0 %	0 / 0	100.0 %
		008	-	6	6	1 / 0	16.7 %	2 / 0	50.0 %	3 / 0	100.0 %
		009	-	10	2	0 / 0	0.0 %	1 / 0	50.0 %	1 / 0	100.0 %
		012	-	47	10	1 / 0	10.0 %	9 / 0	100.0 %	0 / 0	100.0 %
		013	-	10	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		014	-	22	6	3 / 0	50.0 %	3 / 0	100.0 %	0 / 0	100.0 %
		Item Total:		174	48	9 / 0	18.8 %	29 / 0	79.2 %	10 / 0	100.0 %
R1.13	Elements Subject to Corrosive, Erosive, or Cavitation Wastage Code Case N-578-1, Class 1										
		014	-	4	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
R1.14	Elements Subject to Crevice Corrosion Cracking Code Case N-578-1, Class 1										
		010	-	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
R1.16	Elements Subject to Intergranular Stress Corrosion Cracking(IGSCC) Code Case N-578-1, Class 1										
		002	-	2	2	0 / 0	0.0 %	2 / 0	100.0 %	0 / 0	100.0 %
		003	-	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		005	-	6	3	2 / 0	66.7 %	1 / 0	100.0 %	0 / 0	100.0 %
		008	-	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		011	-	13	5	2 / 0	40.0 %	0 / 0	40.0 %	3 / 0	100.0 %
		012	-	18	10	1 / 0	10.0 %	9 / 0	100.0 %	0 / 0	100.0 %
		014	-	6	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		49	20	5 / 0	25.0 %	12 / 0	85.0 %	3 / 0	100.0 %
R1.18	Elements Subject to Flow Accelerated Corrosion(FAC) Code Case N-578-1, Class 1, in accordance with FAC program										
		005	-	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		012	-	10	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		14	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
R1.20	Elements not Subject to a Damage Mechanism Code Case N-578-1, Class 1										
		002	-	10	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		003	-	11	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		004	-	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		005	-	50	6	1 / 0	16.7 %	2 / 0	50.0 %	3 / 0	100.0 %
		006	-	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		007	-	58	5	1 / 0	20.0 %	1 / 0	40.0 %	3 / 0	100.0 %
		008	-	15	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		009	-	40	2	0 / 0	0.0 %	0 / 0	0.0 %	2 / 0	100.0 %
		010	-	1	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		011	-	105	10	2 / 0	20.0 %	3 / 0	50.0 %	5 / 0	100.0 %
		012	-	92	4	1 / 0	25.0 %	1 / 0	50.0 %	2 / 0	100.0 %
		013	-	245	11	5 / 0	45.5 %	3 / 0	72.7 %	3 / 0	100.0 %
		014	-	138	4	1 / 0	25.0 %	3 / 0	100.0 %	0 / 0	100.0 %
		Item Total:		768	45	11 / 0	24.4 %	14 / 0	55.6 %	20 / 0	100.0 %

R-A Risk-Informed Piping Examinations

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
R2.11	Elements Subject to Thermal Fatigue Code Case N-578-1, Class 2										
		014	-	243	23	1 / 0	4.3 %	11 / 0	52.2 %	11 / 0	100.0 %
R2.18	Elements Subject to Flow Accelerated Corrosion(FAC) Code Case N-578-1, Class 2										
		014	-	18	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
R2.20	Elements Not Subject to a Damage Mechanism Code Case N-578-1, Class 2										
		001	-	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		002	-	164	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		003	-	117	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		007	-	210	3	0 / 0	0.0 %	3 / 0	100.0 %	0 / 0	100.0 %
		010	-	76	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	-	92	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	-	581	4	0 / 0	0.0 %	4 / 0	100.0 %	0 / 0	100.0 %
		Item Total:		1244	8	0 / 0	0.0 %	8 / 0	100.0 %	0 / 0	100.0 %
		Category Total:		2515	145	26 / 0	17.9 %	74 / 0	69.0 %	45 / 0	100.0 %

R-B Risk-Informed Piping Examinations

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
R1.21	Socket-Welds requiring VT-2 examination each refueling outage VT-2 examination in conjunction with system pressure test, Code Case N-578-1										
		012	-	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		013	-	25	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		014	-	8	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Item Total:		37	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
R2.21	Socket-Welds requiring VT-2 examination each refueling outage Code Case N-578-1, Class 2										
		014	-	12	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Category Total:		49	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %

R-C Risk-Informed Piping Examinations

Item Number	Item Description	Zone	Tbl	No of Comp	No. Req.	Number of Components Scheduled / Completed 1st Period		2nd Period		3rd Period	
R1.11	Elements Subject to Thermal Fatigue Code Case N-578-1, Class 1, BER										
		005	-	21	7	1 / 0	14.3 %	2 / 0	42.9 %	4 / 0	100.0 %
		012	-	25	3	1 / 0	33.3 %	2 / 0	100.0 %	0 / 0	100.0 %
		Item Total:		46	10	2 / 0	20.0 %	4 / 0	60.0 %	4 / 0	100.0 %
R1.18	Elements Subject to Flow Accelerated Corrosion(FAC) Code Case N-578-1, Class 1, in accordance with FAC program, BER										
		012	-	1	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
R1.20	Elements not Subject to a Damage Mechanism Code Case N-578-1, Class 1, BER										
		005	-	6	1	1 / 0	100.0 %	0 / 0	100.0 %	0 / 0	100.0 %
		007	-	5	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		012	-	13	1	0 / 0	0.0 %	0 / 0	0.0 %	1 / 0	100.0 %
		013	-	44	7	4 / 0	57.1 %	3 / 0	100.0 %	0 / 0	100.0 %
		Item Total:		68	10	5 / 0	50.0 %	3 / 0	80.0 %	2 / 0	100.0 %
R2.20	Elements Not Subject to a Damage Mechanism Code Case N-578-1, Class 2, BER										
		007	-	3	3	0 / 0	0.0 %	3 / 0	100.0 %	0 / 0	100.0 %
		013	-	4	1	0 / 0	0.0 %	1 / 0	100.0 %	0 / 0	100.0 %
		Item Total:		7	4	0 / 0	0.0 %	4 / 0	100.0 %	0 / 0	100.0 %
R3.20	Elements Not Subject to a Damage Mechanism Code Case N-578-1, Class 3, BER										
		012	-	4	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
R4.20	Elements not Subject to a Damage Mechanism Code Case N-578-1, Class 4, BER										
		005	-	2	0	0 / 0	0.0 %	0 / 0	0.0 %	0 / 0	0.0 %
		Category Total:		128	24	7 / 0	29.2 %	11 / 0	75.0 %	6 / 0	100.0 %

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APPENDIX G - ASME SECTION XI CODE BOUNDARY DIAGRAMS

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ASME Section XI Code Boundary Classification Diagram Listing G-2

CODE BOUNDARY CLASSIFICATION BOUNDARY DIAGRAMS

The NMP2 ASME Section XI Code Boundary Classification Diagrams identifying ASME Code Class 1, 2 and 3 system boundaries are provided in the following diagrams as listed below:

CODE BOUNDARY DIAGRAM LISTING		
Piping and Instrument Boundary Diagram Number	**System Title**	**Code**
2-A, B, C, D, E	Symbols	N/A
1-A, B, C, D, E, F, G, H, J, K	Main Steam	MSS
6-B	Feedwater	FWS
13-A, B, C, D, E	Reactor Building Closed Loop Cooling Water	CCP
25-A	Auxiliary Steam	ASS
25-F	Turbine Gland Seal and Exhaust	TME
28-A, B, C	Reactor Vessel Instrument	ISC
29-A, B, C	Reactor Recirculation	RCS
30-B, C	Control Rod Drive Hydraulics	RDS
31-A, B, C, D, E, F, G	Residual Heat Removal	RHS
32-A	Low Pressure Core Spray	CSL
33-A, B	High Pressure Core Spray	CSH
35-A, B, C, D	Reactor Core Isolation Cooling	ICS
36-A	Standby Liquid Control	SLS
37-A, B	Reactor Water Cleanup	WCS
29-A, B, C	Reactor Pressure Vessel	RPV
28-A	Reactor Vessel Instrumentation	ISC
67-A	Reactor Building Equipment Drains	DER
104-A	Diesel Generator Air Start System	EGA
38-A	Spent Fuel Pool Cooling	SFC
11-A	Service Water	SWP

CODE BOUNDARY DIAGRAM LISTING		
Piping and Instrument Boundary Diagram Number	**System Title**	**Code**
11-A	Service Water	SWQ
11-A	Service Water System	SWR

APPENDIX H - RELIEF REQUESTS / ALTERNATIVES

H.0 RELIEF REQUESTS / ALTERNATIVES

During the First and Second Ten Year In-service Inspection Intervals, there were cases where component configuration and/or interference prevented the code required volume or surface area from being examined in it's entirety. In each case where such limitations were encountered, the details were documented on a Request for Relief or Alternate and submitted to the Nuclear Regulatory Commission as required by Title 10, Part 50, Section 55a of the Code of Federal Regulations for review and approval.

H.1 NMPNS has determined based on a detailed review that previous granted Requests for Relief or Alternates that certain limitations still exist and therefore, will require re-approval for the Third In-service Inspection Interval. Those requests for relief or Alternates on components which remain applicable for the Third In-service Inspection Interval have been provided within this Appendix.

Appendix H includes a listing that provides the identification and current status of each Request for Relief or Alternate submitted to the USNRC, and form an integral part of the current Inspection Plan and Schedule.

Note: Examination volume or surface area that cannot be examined due to interference by another component or part geometry, a reduction in examination coverage on any weld will be considered acceptable provided the reduction in coverage for that weld is less than 10%. Subject of ASME Code Case N-460 Examination volume or surface area interference that does not meet the coverage requirements of Code Case N-460, will be documented in the form of a Request for Relief per 10 CFR 50.55a (g)(4)(iv).

In cases where parts of the required examination areas cannot by effectively examined because of a combination of component design or current inspection technique limitations, NMPNS will continue to evaluate the development of new or improved examination techniques with the intent of applying these techniques where a practical improvement on the examination can be achieved.

CLASS 1, 2 AND 3 RELIEF REQUEST SUMMARY STATUS

Relief Req. No.	System or Component	Exam Cat. / Item No.	Summary of Request for Relief	Proposed Alternatives	Relief Request Status[4]
2ISI-001A Formally (2ISI-001)	Reactor Pressure Vessel	B-A, B1.11	The permanent elimination of RPV circumferential welds	Perform 100% of longitudinal welds and 2 to 3% of circumferential welds that intersect longitudinal welds	Granted TAC MD3696 11/05/07 Note 5
2ISI-002 Formally (RR-IWB-7)	Reactor Pressure Vessel	B-A, B1.22, B1.21	Relief is requested from performing 100% of CRV	Perform exams to the maximum extent practical	
2ISI-003 Formally (RR-IWB-3)	Reactor Pressure Vessel	B-A, B1.30	Request Relief from performing 100% of CRV	Perform exams to the maximum extent practical	
2ISI-004 Formally (RR-IWB-2)	Reactor Pressure Vessel	B-D, B3.90	Relief is requested from performing 100% CRV	Examine to the maximum extent practical	
2ISI-005 Formally (RR-IWB-1)	Reactor Pressure Vessel	B-O, B14.10	Relief is requested from 100% examination CRD Housings	NMPNS proposes to perform additional examination as defined in the Relief Request	
2ISI-006 Formally (RR-IWB-13)	Reactor Pressure Vessel	B-G-1, B6.40	Relief is requested from performing 100% CRV	Perform exams to the maximum extent practical	
2ISI-007 Formally (RR-RI-ISI-2)	Various	B-F, B5.10, B5.20, B5.30, B5.100, B5.110, B5.120 B-J, B9.11, B9.21, B9.31, B9.32, B9.40 C-F-1, C5.11, C5.21, C5.30, C5.40 C-F-2, C5.51, C5.61, C5.70, C5.81 IGSCC "A"	Relief is requested from ASME Section XI Class 1 and 2 piping examination requirements..	Implement Alternate Risk-Informed Inservice Inspection Program	
2ISI-008 Formally (RR-IWC-5)	Low Pressure Core Spray and Residual Heat Removal	C-G C6.20	Relief is requested from performing 100% of the Code Required Surface	Perform exams to the maximum extent practical	
2ISI-009 Formally (RR-IWC-1)	High Pressure Core Spray, Low Pressure Core Spray, Residual Heat Removal, Reactor Core Isolation Cooling	C-G C6.10 C-C C3.10	Relief is requested from performing 100% of the Code Required Surface	Perform exams to the maximum extent practical	

CLASS 1, 2 AND 3 RELIEF REQUEST SUMMARY STATUS					
Relief Req. No.	**System or Component**	**Exam Cat. / Item No.**	**Summary of Request for Relief**	**Proposed Alternatives**	**Relief Request Status[4]**

Standard Legend Notes

Note 1 Submitted to USNRC, awaiting USNRC Safety Evaluation
Note 2 Withdrawn from USNRC Consideration
Note 3 Resubmitted following Request for Information, awaiting USNRC Evaluation
Note 4 General – Unless the status identifies the Request for Relief as granted, implementation is prohibited
Note 5 Request 2ISI-001A has been updated to identify new ASME Section XI Edition/Addenda for inspection interval only.

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-010

Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(i)

A. COMPONENT IDENTIFICATION:

System: Reactor Pressure Vessel

Code Class: ASME Code Class 1

Component Description: Reactor Vessel Interior Surfaces, Interior Attachments and Core Support Structure

Components Affected:

Components	Description	Code Category	Code Item Number
Core Spray Piping and Sparger Top Guide Jet Pumps Control Rod Guide Tubes	Accessible areas of reactor vessel interior	B-N-1	B13.10
Jet Pump Riser Braces	Interior attachments within the Beltline Region	B-N-2	B13.20
Guide Rod Brackets Surveillance Specimen Holder Brackets Steam Dryer Hold-Down Brackets Steam Dryer Support Feedwater Brackets Core Spray Piping Brackets	Interior attachments beyond the Beltline Region	B-N-2	B13.30
Shroud Support	Core Support Structure	B-N-2	B13.40

B. APPLICABLE CODE REQUIREMENTS:

The applicable ASME Code, Section XI, for the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

ASME Code Section XI, Sub-article IWB-2500, Table IWB-2500-1, requires the following:

Visual VT-3 Examination of Accessible areas, Examination Category B-N-1, "Interior of Reactor Vessel", Examination Item Number B13.10, "Reactor Vessel Interior," each inspection period.

Visual VT-1 Examination of Accessible surfaces, Examination Category B-N-2, "Welded Core Support Structures," Examination Item Number B13.40, "Reactor Vessel Core Support Structure." Once each inspection interval.

Visual VT-1 Examination of Accessible Welds, Examination Category B-N-2, "Interior Attachments to Reactor Vessels," Examination Item Numbers B13.20, "Reactor Vessel Interior Attachments within the Beltline Region," once each inspection interval.

Visual VT-3 Examination of Accessible Welds, Examination Category B-N-2, "Interior Attachments to Reactor Vessel," Examination Item Number B13.30, "Reactor Vessel Interior Attachments beyond the Beltline Region," once each inspection interval.

C. REASON FOR REQUEST FOR RELIEF:

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(a)(3), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief from the requirement of ASME Code Section XI, Sub article IWB-2500, Table IWB-2500-1, in order to consolidate inspections and examinations of reactor pressure vessel interior areas utilizing the latest superior techniques, while still maintaining an acceptable level of quality and safety that satisfies the requirements of 10 CFR 50.55a(a)(3)(i) and will not adversely impact the health and safety of the public.

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:

Currently, in addition to the ASME Section XI examination requirements, NMPNS implements inspections of the reactor vessel interior (RVI) components and sub-components in accordance with the BWRVIP guidelines. The BWRVIP guidelines have been written to address the safety-significance RVI components and to inspect these components using appropriate methods and examination frequencies. In addition the NRC has agreed in principal with the BWRVIP approach and has issued safety evaluations (SE) for these guidelines.

NMPNS has compared the proposed alternative inspection methods, scope of inspection, inspection frequency and acceptance criteria and has determined that an acceptable level of quality and safety as compared to the Section XI examination requirements therefore justifying that the proposed alternative inspections would adequately identify the aging degradation of the RVI components in a timely manner. See Attachment 1 for comparison.

B13.10 Reactor Vessel Interior Accessible Areas (B-N-1)

The ASME Section XI Code requires a VT-3 examination of reactor vessel interior surfaces that are made accessible every inspection period during each 10 year interval. This is non-specific examination requiring examination of surfaces made accessible during refueling. The various BWRVIP Inspection and Evaluation Guidelines require, as a minimum a VT-3 inspection of reactor vessel interior components. Additionally, the BWRVIP guidelines require that many component welds and weld heat affected zones in this category be inspected by a VT-1, EVT-1, or UT. The BWRVIP inspection method meets (VT-3) or exceeds (VT-1, EVT-1, or UT) the examination method requirements specified by the Code. The BWRVIP inspection requirements for reactor vessel interior accessible areas provide an acceptable level of quality and safety as compared to the Code requirements by providing equivalent or in most cases superior inspection methods.

B13.20 Interior Attachments Within the Beltline (B-N-2)

The ASME Section XI Code requires a VT-1 examination of accessible reactor inside surface attachment welds once each 10 year interval. The BWRVIP requires an EVT-1 inspection on a majority of attachment welds in the beltline region in the first 12 years and then 25% during each subsequent 6 years. The BWRVIP EVT-1 is an enhance examination where the equipment and conditions are such that they can achieve a ½ mil (0.0005 inch) resolution on the inspection surface. The enhanced flaw detection capability of an EVT-1, with the less frequent inspection frequency and the use of the same flaw evaluation criteria, results in the BWRVIP inspection requirements providing the same level of quality and safety as that provided by the ASME Code.

B13.30 Interior Attachment Beyond the Beltline region (B-N-2)

The BWRVIP requires as a minimum the same VT-3 inspection as the Code for interior attachment welds beyond the beltline region and in some cases specifies an enhanced visual inspection technique EVT-1. The inspection frequency for EVT-1 is every 6 years while the Code

required VT-3 is once every 10 years. Therefore the level of quality and safety provided by the BWRVIP requirements is equivalent to that provided by the Code.

B13.40 Integrally Welded Core Support Structure (B-N-2)

The ASME Section XI Code requires a VT-3 of accessible surfaces each 10 years, while the BWRVIP requires as a minimum the same VT-3 inspection as the Code or either an enhanced visual EVT-1 or a volumetric examination. Therefore the BWRVIP requirements provide a level of quality and safety equivalent to that provided by the ASME Code.

Proposed Alternative:

In accordance with 10 CFR 50.55a(a)(3)(i), Nine Mile Point Nuclear Station will implement in lieu of the ASME Section XI requirements the BWRVIP inspection guidelines applicable to the component and sub-components. The following alternate provisions for the subject Code required examinations are proposed: The particular BWRVIP guidelines that are applicable to the various RVI components are:

BWRVIP-18	"BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines"
BWRVIP-25	"BWR Core Plate Inspection and Flaw Evaluation Guidelines"
BWRVIP-26	"BWR Top Guide Inspection and Flaw Evaluation Guidelines"
BWRVIP-38	"BWR Shroud Support Inspection and Flaw Evaluation Guidelines"
BWRVIP-41	"BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines"
BWRVIP-47	"BWR Lower Plenum Inspection and Flaw Evaluation Guidelines"
BWRVIP-48	"BWR Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines"
BWRVIP-76	"BWR Core Shroud Inspection and Flaw Evaluation Guidelines"

NMPNS will also follow the requirements of BWRVIP-94, "Program Implementation Guidelines." BWRVIP-94 states that where guidance in existing BWRVIP documents has been supplemented or revised by subsequent correspondence approved by the BWRVIP Executive Committee, the most current approved guidance will be implemented.

E. IMPLEMENTATION SCHEDULE

Relief is requested for the Third Ten-Year In-service Inspection Interval of the Nine Mile Point Unit 2 Inservice Inspection Program, beginning April 5, 2008 and scheduled to end April 4, 2018.

F. PRECEDENTS:

USNRC Safety Evaluation for Entergy Nuclear Operations, Vermont Yankee Nuclear Power Station, TAC No. MC0960, dated September 19, 2005.

G. ATTACHMENTS:

Attachment 1 Comparison of ASME Category B-N-1 and B-N-2 Requirements with BWRVIP Guideline Requirements

H. REFERENCES:

1. Letter USNRC to BWRVIP, dated April 27, 1998, "Final Supplement to Safety Evaluation of BWRVIP-07 Report"
2. Letter USNRC to BWRVIP, dated September 15, 1998, "Safety Evaluation of BWRVIP-06 Report"
3. Letter USNRC to BWRVIP, dated September 29, 1999, "Final Safety Evaluation of BWRVIP, BWR Top Guide Inspection and Flaw Evaluation Guideline (BWRVIP-26). "EPRI Report TR-107285, December 1996"

4. Letter USNRC to BWRVIP, dated September 29, 1999, "Final Safety Evaluation of BWRVIP. BWR Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines (BWRVIP-48), "EPRI Report TR-108724"
5. Letter USNRC to BWRVIP, dated October 6, 1999, "Staff Reevaluation of Table 1 in BWRVIP-07 Report"
6. Letter USNRC to BWRVIP, dated October13, 1999, "Final Safety Evaluation of BWRVIP, BWR Lower Plenum Inspection and Flaw Evaluation Guidelines (BWRVIP-47), "EPRI Report TR-108727"
7. Letter USNRC to BWRVIP, dated December 2, 1999, "Final Safety Evaluation of BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines (BWRVIP-18)"
8. Letter USNRC to BWRVIP, dated December 19, 1999, "Final Safety Evaluation of BWRVIP, "BWR Core Plate Inspection and Flaw Evaluation Guidelines (BWRVIP-25)" EPRI Report TR-107284, December 1996"
9. Letter USNRC to BWRVIP, dated July 24, 2000, "Final Safety Evaluation of the "BWRVIP, BWR Shroud Support Inspection and Flaw Evaluation Guidelines (BWRVIP-38), "EPRI Report TR-108823"
10. Letter USNRC to BWRVIP, dated February 4, 2001, "Final Safety Evaluation of the "BWRVIP, BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines (BWRVIP-41)".
11. Letter USNRC to BWRVIP, dated August 20, 2001, "Final Safety Evaluation of the "BWRVIP, Shroud Vertical Weld Inspection and Evaluation Guidelines (BWRVIP-63)"
12. Letter USNRC to BWRVIP, dated August 17, 2006, "Final Safety Evaluation of "BWRVIP, BWR Core Shroud Inspection and Flaw Evaluation Guidelines (BWRVIP-76)"

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-010

Attachment 1

Comparison of ASME Category B-N-1 and B-N-2 Requirements with BWRVIP Guidance Requirements[1]

ASME Item No Table IWB-2500-1	Component	ASME Exam Scope	ASME Exam	ASME Frequency	Applicable BWRVIP Document	BWRVIP Exam Scope	BWRVIP Exam	BWRVIP Frequency
B13.10	Reactor Vessel Interior	Accessible Areas (Non-specific)	VT-3	Each Period	BWRVIP-18, 25, 26, 38, 41, 47, 48, 76			
B13.20	Interior Attachments Within Beltline – Riser Brace	Accessible Welds	VT-1	Each 10-year Interval	BWRVIP-48 Table 3-2	Riser Brace Attachment	EVT-1	100% in first 12 years, 25% during each subsequent 6 years
	Lower Surveillance Specimen Holder Brackets					Bracket Attachment	VT-1	Each 10-year Interval
B13.30	Interior Attachments Beyond Beltline – Steam Dryer Hold-down Brackets	Accessible Welds	VT-3	Each 10-year Interval	BWRVIP-48 Table 3-2	Bracket Attachment	VT-3	Each 10-year Interval
	Guide Rod Brackets				BWRVIP-48 Table 3-2	Bracket Attachment	VT-3	Each 10-year Interval
	Steam Dryer Support Brackets				BWRVIP-48 Table 3-2	Bracket Attachment	EVT-1	Each 10-year Interval
	Feedwater Sparger Brackets				BWRVIP-48 Table 3-2	Bracket Attachment	EVT-1	Each 10-year Interval
	Core Spray Piping Brackets				BWRVIP-48 Table 3-2	Bracket Attachment	EVT-1	Every 4 Refueling Cycles
	Upper Surveillance Specimen Holder Brackets	(Rarely Accessible)			BWRVIP-48 Table 3-2	Bracket Attachment	VT-3	Each 10-year Interval
	Shroud Support (Weld H9)				BWRVIP-38 3.1.3.2, Figure 3-5	Weld H9	EVT-1 or UT	Minimum of 6 years for EVT-1, Maximum of 10 years for UT
	Shroud Support Legs (H12 Qelds)				BWRVIP-38 3.2.3	Not Required Note 2	Not Required Note 2	Not Required Note 2
B13.40	Integrally Welded Core Support Structure – Shroud Support	Accessible Surfaces	VT-3	Each 10-year Interval	BWRVIP-38 3.1.3.2, Figure 3-5	Weld H8, H9	EVT-1 or UT	Minimum of 6 years for EVT-1, Maximum of 10 years for UT
	Shroud				BWRVIP-76 2.2.1	Welds H1, H2	EVT-1 or UT	Maximum 10 years
					BWRVIP-76 Figure 3-3	Vertical and Ring Segment Welds Below H@	EVT-1 or UT	Minimum of 6 years for EVT-1, Maximum of 10 years for UT
					BWRVIP-76 3.5	Tie Rod repair	VT-3	All 4 within 10 years

Notes;

(1) This Table provides only an overview of the requirements. For more details, refer to ASME Code Section XI, Table IWB-2500-1, and the appropriate BWRVIP documents.

(2) Periodically, NMPNS will have access to the lower plenum welds due to maintenance activities not related to the inspection recommendations in the BWRVIP guidelines. In each

case, NMPNS will perform inspection of the shroud support leg welds to the extent practical. When inspection tooling and methodologies are developed that allow access to the lower plenum without disassembly beyond normal refueling activities, shroud support leg welds will be inspected with an appropriate nondestructive examination method. Results of the inspection will be used to determine a re-inspection schedule. NMPNS will adopt future inspection methods and schedules as they are developed and included into the BWRVIP-38 report and approved by the NRC staff.

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-002

Proposed Request for Relief
In Accordance with 10 CFR 50.55a(g)(5)(iii)

A. COMPONENT IDENTIFICATION:

System: Reactor Recirculation System

Code Class: ASME Code Class 1

Component Description: Two (2) Circumferential and Two (2) Meridional Reactor Vessel Bottom Head Welds:

Components Affected:

Weld Numbers	Description	Code Category	Code Item Number
2RPV-DB	Meridional bottom head radial plate-to-bottom head radial plate	B-A	B1.22
2RPV-DC	Meridional bottom head radial plate-to-bottom head radial plate	B-A	B1.22
2RPV-DG	Circumferential bottom head dollar plate-to-bottom head dollar plate	B-A	B1.21
2RPV-DR	Circumferential bottom head dollar plate-to-bottom head dollar plate	B-A	B1.21

B. APPLICABLE CODE REQUIREMENTS:

The ASME Code, Section XI, applicable to the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third Ten-Year In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

Sub-article IWB-2500, Table IWB-2500-1 requires essentially 100% volumetric examination of all reactor vessel bottom head welds each inspection interval (i.e., Examination Category B-A, *Pressure Retaining Welds in Reactor Vessel*, Item No's. B1.21, *Circumferential Head Welds*, and B1.22, *Meridional Head Welds)*.

C. REASON FOR REQUEST FOR RELIEF:

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(g)(5)(iii), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief from the requirement of ASME Code Section XI, Sub-article IWB-2500, Table IWB-2500-1, Volumetric Examination of Examination Category B-A, "Pressure Retaining Welds in Reactor Vessel", Examination Item Number B1.21,"Circumferential Head Welds" and B1.22, "Meridional Head Welds."

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:

The original design of the reactor pressure vessel bottom head assembly does not provide accessibility for the manual volumetric examinations on the bottom head circumferential and

meridional welds due to interference with the Control Rod Drive (CRD) penetrations and the Reactor Pressure Vessel (RPV) support skirt.

Only approximately 12" to 24" on each end of circumferential bottom head dollar plate welds 2RPV-DG and 2RPV-DR can be examined due to interference with the CRD penetration housings.

Approximately one foot cannot be examined on each of the other bottom head meridional welds 2EPV-DB and 2RPV-DC due to interference with the RPV support skirt.

Table 1 below provides the percent of Code Required Volume (CRV) achieved during the inspection interval and based upon the results has essentially remained unchanged from the previous inspection interval.

Table 1
Percent of Code Required Volume Achieved

COMPONENT IDENTIFICATION	PERCENT OF CODE REQUIRED VOLUME ACHIEVED
2RPV-DB	89% coverage achieved
2RPV-DC	82% coverage achieved
2RPV-DG	19% coverage achieved
2RPV-DR	21% coverage achieved

The subject examinations have been completed to the maximum extent possible, additional coverage is not possible without redesign of the reactor vessel bottom head

Proposed Alternative:

Nine Mile Point Nuclear Station will continue to implement to the maximum extent possible the inservice examination requirements of ASME Code Section XI, Table IWB-2500-1, Examination Category B-A, Item No. B1.21 and B1.22,

In summary, NMPNS has concluded that based on the permanent limitations and the percent of examination coverage achieved that continued approval of the request for relief is justified in accordance with 10 CFR 50.55a(g)(5)(iii).

E. IMPLEMENTATION SCHEDULE

Relief is requested for the Third Ten-Year Inservice Inspection Interval. (April 5, 2008 to April 4, 2018)

F. PRECEDENTS

This request for relief was originally submitted as RR-IWB-7, under NMPNS letter dated July 30, 1999 and relief was granted. (Reference 1).

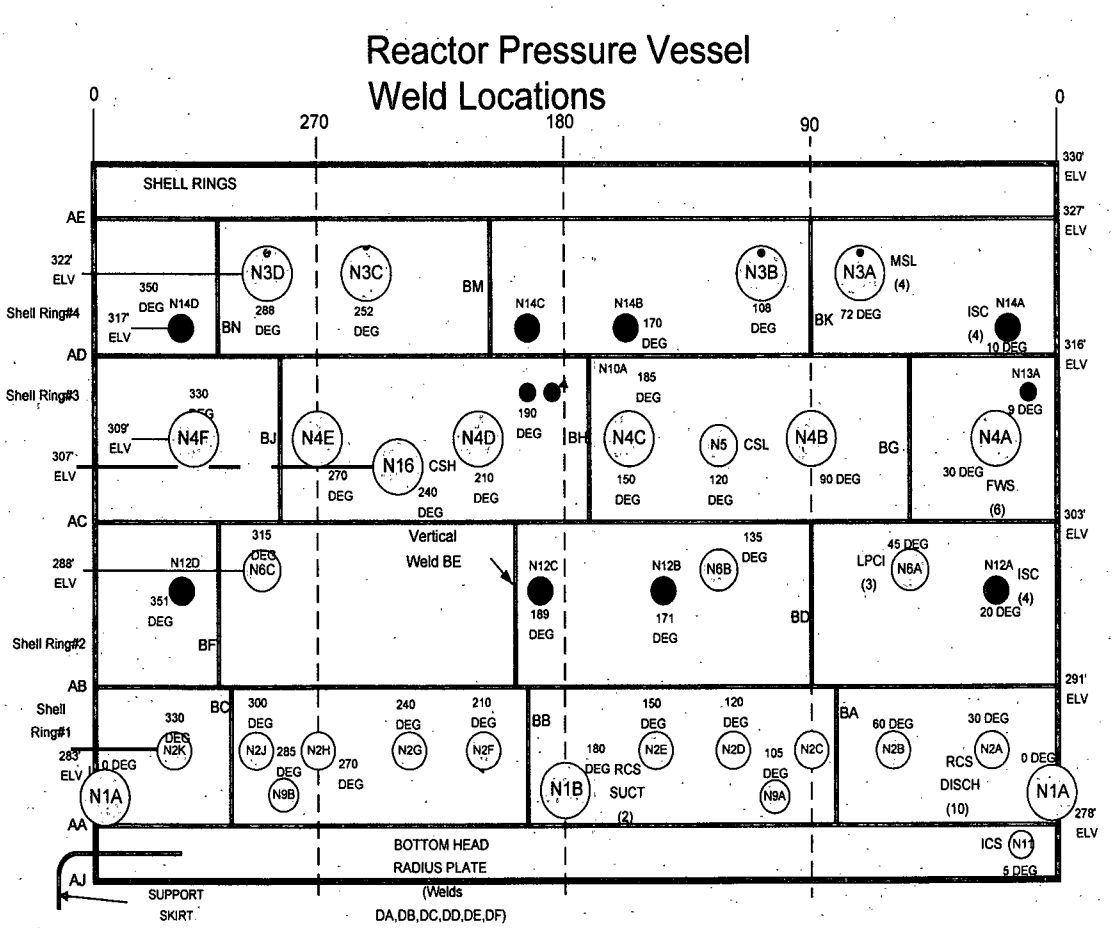
G. ATTACHMENTS:

Figure 1 – Typical weld locations

H. REFERENCES

1. USNRC Safety Evaluation, dated March 3, 2000, TAC No. MA6273

Figure 1


Reactor Pressure Vessel
Weld Locations
0
270
180
90
0
SHELL RINGS
AE
AD
AC
AB
AA
AJ
330' ELV
327' ELV
316' ELV
303' ELV
291' ELV
278' ELV
Shell Ring#4
Shell Ring#3
Shell Ring#2
Shell Ring#1
322' ELV
317' ELV
309' ELV
307' ELV
288' ELV
283' ELV
N3D
N3C
N3B
N3A
MSL (4)
N14D
N14C
N14B
N14A
ISC (4)
BM
BN
BK
N4F
N4E
N16
CSH
N4D
N4C
N5
CSL
N4B
N4A
N13A
FWS (6)
BJ
BH
BG
N12D
N6C
Vertical Weld BE
N12C
N12B
N6B
N6A
LPCI (3)
N12A
ISC (4)
BF
BD
N2K
N2J
N2H
N2G
N2F
N2E
N2D
N2C
N2B
N2A
RCS DISCH (10)
N9B
N9A
N1A
N1B
BC
BB
BA
BOTTOM HEAD RADIUS PLATE (Welds DA,DB,DC,DD,DE,DF)
SUPPORT SKIRT
ICS
N11
RCS SUCT (2)

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-003

Proposed Request for Relief
In Accordance with 10 CFR 50.55a(g)(5)(iii)

A. COMPONENT IDENTIFICATION:

System: Reactor Pressure Vessel

Code Class: ASME Code Class 1

Component Description: Reactor Pressure Vessel Flange to Shell Weld

Components Affected:

Weld Numbers	Description	Code Category	Code Item Number
2RPV-AE	Reactor Pressure Vessel Flange to Shell Weld	B-A	B1.30

B. APPLICABLE CODE REQUIREMENTS:

The ASME Code, Section XI, applicable to the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

Sub-article IWB-2500, Table IWB-2500-1 requires essentially 100% volumetric examination of the reactor vessel flange to shell weld each inspection interval (i.e., Examination Category B-A, Pressure Retaining Welds in Reactor Vessel, Item No. B1.30, Shell to Flange Weld).

C. REASON FOR REQUEST FOR RELIEF:

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(g)(5)(iii), Nine Mile Point Nuclear Station, LLC, Unit 2 requests relief from the requirement of ASME Code Section XI, Sub article IWB-2500, Table IWB-2500-1, Volumetric Examination of Examination Category B-A, "Pressure Retaining Welds in Reactor Vessel", Examination Item Number B1.30, "Shell to Flange Weld."

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:

The original design configuration of the shell to flange weld does not allow access from both sides of the weld due to the inside diameter taper from the flange forging to the thinner upper shell course.

Examination of the shell to flange weld was performed to the maximum extent possible from both the Reactor Pressure Vessel shell course and from the flange seal surface. Because of unparallel surfaces above the shell to flange weld it is impossible to achieve further coverage without redesign of the reactor pressure vessel flange.

The percent of Code Required Volume achieved during the inspection interval has essentially remained unchanged. Table 1 below provides the results of the percent of CRV achieved.

Table 1 Percent of Code Required Volume Achieved		
COMPONENT IDENTIFICATION	Examination Surface	PERCENT OF CODE REQUIRED VOLUME ACHIEVED DURING INSPECTION INTERVAL
2RPV-AE-SS	From the shell side	52% CRV Achieved
2RPV-AE-FS	From the flange side	100% CRV Achieved

Proposed Alternative

Nine Mile Point Nuclear Station will continue to implement to the maximum extent possible the inservice examination requirements of the ASME Code Section XI, Table IWB-2500-1, Examination Category B-A, Item No. B1.30 as follows:

Perform essentially 100% volumetric examination of flange to shell weld 2RPV-AE from the flange side during the first inspection period, and to the extent possible conduct volumetric examination of the shell to flange weld from the shell side during the third inspection period.

In summary, NMPNS has concluded that based on the permanent limitations, the percent of examination coverage achieved that continued approval of the request for relief is justified in accordance with 10 CFR 50.55a(g)(5)(iii).

E. IMPLEMENTATION SCHEDULE

Relief is requested for the Third Ten-Year Inservice Inspection Interval (April 5, 2008 to April 4, 2018)

F. PRECEDENTS

This request for relief was originally submitted as RR-IWB-3, under NMPNS letter dated July 30, 1999 and granted under USNRC Safety Evaluation, dated March 3, 2000 (Reference 1).

G. ATTACHMENTS:

None

H. REFERENCES

1. USNRC Safety Evaluation, dated 03/03/00, TAC No. MA6273.

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-004

Proposed Request for Relief
In Accordance with 10 CFR 50.55a(g)(5)(iii)

A. COMPONENT IDENTIFICATION:

System: Reactor Pressure Vessel

Code Class: ASME Code Class 1

Component Description: Thirty-three (33) reactor pressure vessel nozzle-to-shell welds

Components Affected:

System	Nozzle Types	Number of Nozzles	Examination Category	Examination Item Number
RCS	N1 Nozzle	2	B-D	B3.90
RCS	N2 Nozzles	10	B-D	B3.90
MSS	N3 Nozzles	4	B-D	B3.90
FWS	N4 Nozzles	6	B-D	B3.90
CSL	N5 Nozzles	1	B-D	B3.90
RHS	N6 Nozzles	3	B-D	B3.90
ICS	N7 Nozzles	1	B-D	B3.90
ISC	N9 Nozzles	2	B-D	B3.90
RPV	N10 Nozzles	1	B-D	B3.90
CSH	N16 Nozzles	1	B-D	B3.90
RPV CH	N8 Nozzles	1	B-D	B3.90
RPVCH	N18 Nozzles	1	B-D	B3.90

B. APPLICABLE CODE REQUIREMENTS:

The ASME Code, Section XI, applicable to the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

Sub-article IWB-2500, Table IWB-2500-1 requires essentially 100% volumetric examination of the nozzle to shell welds each inspection interval (i.e., Examination Category B-D, Full Penetration Welds of Nozzles in Vessels (Inspection Program B), Item No. B3.90, Nozzle-to-Vessel Welds).

C. REASON FOR REQUEST FOR RELIEF:

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(g)(5)(iii), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief from the requirement of ASME Code Section XI, Sub article IWB-2500, Table IWB-2500-1, Volumetric Examination of Examination Category B-D, "Full Penetration Welds of Nozzles in Vessels (Inspection Program B)", Examination Item Number B3.90, "Nozzle-to-Vessel Welds."

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:

The volumetric examination of these Reactor Pressure Vessel nozzle-to-shell welds is limited to varying extents due to nozzle-to-shell blend areas, vessel scanner tracks, close proximity of other nozzles, limited access from the nozzle side of welds and mechanical limitations.

Table 1 identifies each nozzle to shell weld that was examined to the maximum extent possible with the principal deterrent to achieving Code Compliance being the design configuration of the weld joints.

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-004

Proposed Alternative

Nine Mile Point Nuclear Station will continue to implement to the maximum extent possible the inservice examination requirements of the ASME Code Section XI, Table IWB-2500-1, Examination Category B-D, Item No. B3.90, utilizing the latest UT techniques and equipment.

NMPNS has demonstrated that the permanent limitations and the percent of examination coverage achieved has essentially remained unchanged and will continue to be met. Therefore, the requested duration of the proposed alternative is justified

Table 1
Percent of Code Required Volume Achieved

COMPONENT IDENTIFICATION	PERCENT OF CODE REQUIRED VOLUME ACHIEVED **During Inspection Interval**
2RPV-KA05	64.5% CRV achieved
2RPV-KA06	64.5% CRV achieved
2RPV-KA07	64.5% CRV achieved
2RPV-KA13	65.3% CRV achieved
2RPV-KA14	64% CRV achieved
2RPV-KA16	65% CRV achieved
2RPV-KA17	64.7% CRV achieved
2RPV-KA20	66.3% CRV achieved
2RPV-KA21	58% CRV achieved
2RPV-KA22	64.7% CRV achieved
2RPV-KA23	65.3% CRV achieved
2RPV-KA24	64.5% CRV achieved
2RPV-KA27	63% CRV achieved
2RPV-KA31	64% CRV achieved
2RPV-KA32	70% CRV achieved
2RPV-KA33	65.8% CRV achieved

In summary, NMPNS has concluded that based on the permanent limitations, the percent of examination coverage achieved that continued approval of the request for relief is justified in accordance with 10 CFR 50.55a(g)(5)(iii).

E. IMPLEMENTATION SCHEDULE:

Relief is requested for the Third Ten-Year Inservice Inspection Interval (April 5, 2008 to April 4, 2018)

F. PRECEDENTS:

This request for relief was originally submitted as RR-IWB-2, under NMPNS letter dated July 30, 1999 and granted under NRC Safety Evaluation, dated March 3, 2000 (Reference 1).

G. ATTACHMENTS:

None

H. REFERENCES

1. USNRC Safety Evaluation, dated 03/03/00, TAC No. MA6273

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-005

Proposed Request for Relief
In Accordance with 10 CFR 50.55a(g)(5)(iii)

A. COMPONENT IDENTIFICATION:

System: Reactor Pressure Vessel

Code Class: ASME Code Class 1

Component Description: Reactor Vessel pressure retaining welds in control rod housings

Components Affected:

Weld Numbers	Description	Code Category	Code Item Number
2RPV-CRDH001A through 2RPV-CRDH040A	Pressure retaining welds in Control Rod Housings	B-O	B14.10
2RPV-CRDH001B through 2RPV-CRDH040B	Pressure retaining welds in Control Rod Housings	B-O	B14.10

B. APPLICABLE CODE REQUIREMENTS:

The applicable ASME Code, Section XI, for Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third 10-Year Interval, In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

Sub-article IWB-2500, Table IWB-2500-1 requires essentially 100% volumetric or surface examination of 10 percent of peripheral CRD housings each inspection interval (i.e., Examination Category B-O, Pressure Retaining Welds in Control Rod Housings, Item No. B14.10, Welds in CRD Housing).

C. REASON FOR REQUEST FOR RELIEF:

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(g)(5)(iii), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief from the requirement of ASME Code Section XI, Sub-article IWB-2500, Table IWB-2500-1, Volumetric or Surface Examination of Examination Category B-O, "Pressure Retaining Welds in Control Rod Housings", Examination Item Number B14.10, "Welds in CRD Housing."

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:

Limited accessibility for all 40 peripheral CRD housing welds are due to inherent obstructions caused by surrounding cables, tubing, and foundations which are not practical to remove or replace.

Each of the 40 peripheral CRD housing has two welds. Therefore, eight welds are required to be examined. Assuming Code Case N-460 minimum coverage allowable of 90%, eight (8) full weld examinations equals a minimum requirement of 720 total percentage points.

Portions of six (6) additional welds were examined to the extent possible, such that, fourteen (14) welds were actually examined. (See Table 1 below). Examination coverage ranged from 27% to 100%. The total of examined percentage points summed to 953, thus exceeding the 720 percentage points required. Although the use of an inspection mirror achieved 100% coverage on three of the welds (thus reducing the original population for which relief is sought from 8 to 5) this request is still required.

This request for relief has been updated to reference the applicable Code edition and addenda and the percentage of coverage that was achieved during the previous inspection interval.

Table 1
Percent of Code Required Volume Achieved

Original Sample		Additional Sample	
2RPV-CRDH007A	54% Coverage achieved	2RPV-CRDH001A	43% Coverage achieved
2RPV-CRDH007B	54% Coverage achieved	2RPV-CRDH001B	80% Coverage achieved
2RPV-CRDH0036A	54% Coverage achieved	2RPV-CRDH004A	43% Coverage achieved
2RPV-CRDH0036B	54% Coverage achieved	2RPV-CRDH004B	75% Coverage achieved
2RPV-CRDH0037A	54% Coverage achieved	2RPV-CRDH005A	100% Coverage achieved
2RPV-CRDH0037B	54% Coverage achieved	2RPV-CRDH005B	100% Coverage achieved
2RPV-CRDH0038A	100%Coverage achieved		
2RPV-CRDH0038B	100% Coverage achieved		

Proposed Alternative:

Nine Mile Point Nuclear Station will continue to implement the following alternate provisions for the subject CRD Housing weld examinations.

The ISI examination requirements of the ASME Code Section XI, Table IWB-2500-1, Examination Category B-O, Item No. B14.10, shall be performed, to the maximum extent possible, and shall include:

Partial examinations of 10% of the welds plus six (6) additional welds, such that the aggregate total is greater than or equal to eight full examinations (720 total percentage points.)

E. IMPLEMENTATION SCHEDULE:

NMPNS has demonstrated that the permanent limitations and the percent of examination coverage achieved has essentially remained unchanged and will continue to be met. Therefore, the requested duration of the proposed request for relief is justified.

Relief is requested for the Third Ten-Year In-service Inspection Interval (April 5, 2008 to April 4, 2018)

F. PRECEDENTS:

This request for relief was originally submitted as RR-IWB-1, under NMPNS letter dated July 30, 1999 and relief was granted (Reference 1).

G. ATTACHMENTS:

Figure 1 – Unit 2 Plan View

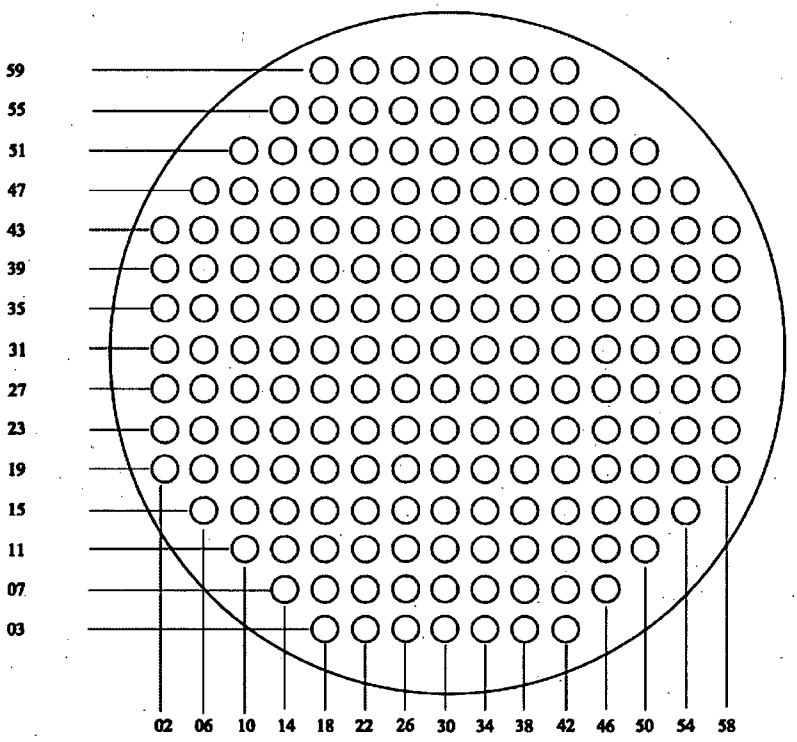
H. REFERENCES:

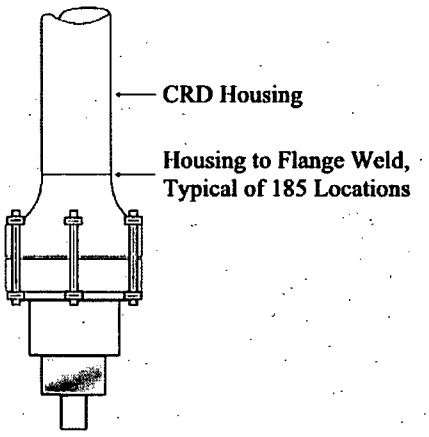
1. USNRC Safety Evaluation, dated March 3, 2000, TAC No. MA6273

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-005

Figure 1

UNIT-2 PLAN VIEW





Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-006

Proposed Request for Relief
In Accordance with 10 CFR 50.55a(g)(5)(iii)

A. COMPONENT IDENTIFICATION:

System: Reactor Pressure Vessel

Code Class: ASME Code Class 1

Component Description: 2MSS*REV1 (2RPV-TF001 thru 2RPV-TF076), Threads in Reactor Vessel Flange

Components Affected:

Weld Numbers	Description	Code Category	Code Item Number
2RPV-TF001 thru 2RPV-TF076	Threads in Reactor Vessel Flange	B-G-1	B6.40

B. APPLICABLE CODE REQUIREMENTS:

The applicable ASME Code, Section XI, for the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

Sub-article IWB-2500 requires components specified in Table IWB-2500-1 to be examined. Table IWB-2500-1 requires volumetric examination of essentially 100% of the volume described by Figure IWB-2500-12 of Examination Category B-G-1, "Pressure Retaining Bolting Greater Than 2 in. Diameter", Examination Item Number B6.40, "*Threads in Reactor Vessel Flange*.

C. REASON FOR REQUEST FOR RELIEF:

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(g)(5)(iii), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief from the requirement of ASME Code Section XI, Sub-article IWB-2500 , Table IWB-2500-1, Volumetric Examination of Examination Category B-G-1, "Pressure Retaining Bolting Greater Than 2 in. Diameter", Examination Item Number B6.40, "*Threads in Reactor Vessel Flange* ."

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:

The groove that the o-ring seal is placed in limits the accessibility of the transducers used to ultrasonically interrogate this base material. As a result, 100% volumetric interrogation is deemed *impractical*.

Nine Mile Point Nuclear Station has considered the consequences of a failure of this system and finds that, due to the conservatism of design inherent to the reactor pressure vessel, catastrophic failure of this component is considered highly unlikely (as reflected in the FSAR choice of the design basis accident.) Therefore, further analysis of the consequences of failure of the reactor pressure vessel flange threads is not required.

Proposed Alternative:

Nine Mile Point Nuclear Station will continue to implement to the maximum extent possible the in-service examination requirements of the ASME Code Section XI, Table IWB-2500-1, Examination Category B-G-1, Item No. B6.40 for each of the 76 ligament areas, ie., CRV = 90.2%.

In summary, NMPNS has concluded that based on the percent of examination coverage achieved that continued approval of the request for relief is justified in accordance with 10 CFR 50.55a(g)(5)(iii).

Lastly, These examinations document interrogated volumes greater than 90%, but less than 100%, in all cases. There are no additional techniques that could be utilized to increase the volume examined for each of the ligament areas.

E. IMPLEMENTATION SCHEDULE:

Relief is requested for the Third Ten-Year In-service Inspection Interval (April 5, 2008 to April 4, 2018)

F. PRECEDENTS:

This request for relief was originally submitted under RR-IWB-13, under NMPNS letter dated July 30, 1999 and granted under NRC Safety Evaluation, dated March 3, 2000 (Reference 1).

G. ATTACHMENTS:

None

H. REFERENCES:

1. USNRC Safety Evaluation. Dated March 3, 2000, TAC No. MA6273

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-007

Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(i)

A. COMPONENT IDENTIFICATION

System: Various ASME Code Class 1 and 2 Systems

Code Class: ASME Code Class 1 and 2

Component Description: ASME Code Class 1 and 2 Piping Welds

Components Affected:

Weld Numbers	Description	Code Category	Code Item Number
Various	ASME Code Class 1 Piping Welds	B-F	B5.10, B5.20, B5.30, B5.100, B5.110, B5.120
Various	ASME Code Class 1 Piping Welds	B-J	B9.11, B9.21, B9.31, B9.32, B9.40
Various	ASME Code Class 2 Piping Welds	C-F-1	C5.11, C5.21, C5.30, C5.40
Various	ASME Code Class 2 Piping Welds	C-F-2	C5.51, C5.61, C5.70, C5.81
Various	IGSCC Category A Piping Welds	A	N/A

B. APPLICABLE CODE REQUIREMENTS

The applicable ASME Code, Section XI, for the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

C. REASON FOR REQUEST FOR RELIEF

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(a)(3), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief from the requirement of ASME Code Section XI, Sub-article IWB-2500 and IWC-2500, Tables IWB-2500-1 and IWC-2500-1, Examination Categories B-F, B-J, C-F-1 and C-F-2, "Pressure Retaining Welds in Piping", and IGSCC Category "A" welds.

ASME Section XI Examination Categories B-F, B-J, C-F-1, and C-F-2 currently contain the requirements for examination of piping components via nondestructive examination (NDE). The previously approved RI-ISI program (Reference 1) will be substituted for Class 1 and Class 2 piping (Examination Categories B-F, B-J, C-F-1, C-F-2 and IGSCC Category A welds) in accordance with 10 CFR 50.55a(a)(3)(i) by alternatively providing an acceptable level of quality and safety. Other non-related portions of the ASME Section XI Code will be unaffected.

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS

Pursuant to 10 CFR 50.55a(a)(3), NRC approval of the Nine Mile Point Nuclear Station, Unit 2 Alternate Risk-Informed In-service Inspection program (RI-ISI) as an alternative to the current 2001 Edition through the 2003 Addenda, ASME Section XI inspection requirements for Class 1, Examination Category B-F and B-J, Class 2, Examination Category C-F-1 and C-F-2, and IGSCC Examination Category "A" piping welds is requested. The Nine Mile Point Unit 2 RI-ISI Program has been developed in accordance with the EPRI methodology contained in EPRI TR-112657, "Risk-Informed In-service Inspection Evaluation Procedure" (Reference 2). It was approved for use at Nine Mile Point Nuclear Station during the second inspection period of the second ten-year inspection

interval and is still applicable for the third in-service inspection interval. The Nine Mile Point Unit 2 specific RI-ISI program is summarized in Table 1. The RI-ISI program has been updated consistent with the intent of NEI-04-05 (Reference 3) and continues to meet EPRI TR-112657 and Regulatory Guide 1.174 risk acceptance criteria.

The ASME Code Section XI Code required minimum percentage (50%) was completed in the second period of the second ISI Interval and the remaining fifty percent (50%) of the RI-ISI program welds were completed by the end of the third Inspection Interval, as required by Reference 1. This Relief Request is to align the RI-ISI Interval and the Code Year with the Third Interval ISI program. 100% of the RI-ISI Program weld examinations will be completed in the Third Inspection Interval.

NMPNS will continue to implement the Risk-Informed Inservice Inspection Program in accordance with ASME Code Case N-578-1, "Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method B, Section XI, Division 1." In addition, NMPNS intends to perform additional examinations required due to the identification of flaws, which are determined to exceed the acceptance standards, during the current refueling outage prior to the units return to service.

The ultrasonic examination volume to be used based on degradation mechanism and component configuration will be the examination figures specified in Section 4 of EPRI TR-112657.

NMPNS intends that for ultrasonic examination procedures, equipment, and personnel used to detect and size flaws in piping welds shall be qualified by performance demonstration in accordance with ASME Section XI Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems." The volumetric scanning will be in both axial and circumferential directions to detect flaws in these orientations.

As part of the RI-ISI living program update, the delta risk assessment was re-evaluated and was determined to continue to meet the delta risk acceptance criteria of EPRI TR-112657.

E. IMPLEMENTATION SCHEDULE

Relief is requested for the Third Ten-Year In-service Inspection Interval of the Nine Mile Point Unit 2 In-service Inspection Program, beginning April 5, 2008 and scheduled to end April 4, 2018.

F. PRECEDENTS

USNRC previously approved the Nine Mile Point Nuclear Station, Unit 2 Alternate Risk-Informed In-service Inspection Program via Reference 1.

Per our commitment in section 4 of our original relief request (Reference 5), NMPNS during the re-evaluation process following each inspection period, considers both the plant and industry operating experience and updates the RI-ISI program as required.

G. ATTACHMENTS

Table 1 - Inspection Location Selection Comparison ASME Section XI Code and EPRI TR-112657 by Risk Category."

H. REFERENCES

1. USNRC Letter dated May 31, 2001 "Nine Mile Point Nuclear Station, Unit No. 2 – "Approval to Use a Risk-Informed Inservice Inspection Program for the Second 10-Year Interval" (TAC No. MB0297).

2. EPRI TR-112657. Electric Power Research Institute Report for Alternative Requirements of Risk-Informed In-service Inspection Evaluation Procedure, EPRI, Polo Alto, CA: 1999, Rev B-A.

3. NEI-04-05, "Living Program Guidance to Maintain Risk-Informed In-service Inspection Programs for Nuclear Plant Piping Systems", dated April 2004.

4. Request for Additional Information Related to Byron Station, Units 1 and 2, Request for relief 13R-02, TAC Ns MD3855 and MD3856, dated August 8, 2007

5. NMPC Letter dated October 16, 2000, Request for Authorization to Use Risk-Informed Inservice Inspection Alternative."

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-007

Table 1
Inspection Location Selection Comparison Between ASME Section XI Code and EPRI TR-112657 by Risk Category

System	Risk		Consequence Rank	Failure Potential		Code Category	1st. Approved RI-ISI Interval			New RI-ISI Interval		
	Category	Rank		DMs	Rank		Weld Count	RI-ISI	Other	Weld Count	RI-ISI	Other
001-ASS	6B	Low	Medium	None	Low	C-F-2	4	0		4	0	
002-CSH	2	High	High	TASCS	Medium	B-J	11	3		11	3	
002-CSH	4	Medium	High	None	Low	B-J, C-F-1	6	1		6	1	
002-CSH	6B	Low	Medium	None	Low	C-F-2	164	0		165	0	
002-CSH	7	Low	Low	None	Low	C-F-1	4	0		4	0	
003-CSL	2	High	High	TASCS	Medium	B-J	8	2		8	2	
003-CSL	4	Medium	High	None	Low	B-J, C-F-1	10	1		10	1	
003-CSL	6B	Low	Medium	None	Low	B-J, C-F-2	114	0		114	0	
003-CSL	7	Low	Low	None	Low	C-F-1	4	0		4	0	
004-DER	2	High	High	TASCS	Medium	B-J	1	1(c)		1	1(c)	
004-DER	7	Low	Low	None	Low	B-J	2	0		2	0	
005-FWS	2	High	High	TASCS	Medium	B-J	31	8		31	8	
005-FWS	4(1)	Medium (High)	High	FAC	Low (High)	B-J	4	0		4	0	
005-FWS	4	Medium	High	None	Low	B-J	43	5		43	5	
005-FWS	5B	Medium	Medium	CC	Medium	B-J	2	1		0 (f)	0	
005-FWS	5B	Medium	Medium	TASCS	Medium	B-J	11	1		11	2	
005-FWS	5B	Medium	Medium	TASCS, CC	Medium	B-J	4	0		4(i)	0	
005-FWS	6B	Low	Medium	None	Medium	B-J	6	0		8(f)	0	
007-ICS	2	High	High	TT, TASCS	Medium	B-J	9	3		10(g)	3	
007-ICS	4	Medium	High	None	Low	B-J, C-F-2	41	5		43(h)	5	
007-ICS	5B	Medium	Medium	TT, TASCS	Medium	B-J	3	1		4(i)	1	
007-ICS	6B	Low	Medium	None	Low	B-J, C-F-2	223	0		223	0	
007-ICS	7	Low	Low	None	Low	N/A	1	0		1	0	
008-ISC	2	High	High	TASCS	Medium	B-J	3	1		3	1	
008-ISC	4	Medium	High	None	Low	B-J	2	1		2	1	
008-ISC	5B	Medium	Medium	TASCS	Medium	B-J	3	1(c)		3	1(c)	
008-ISC	6B	Low	Medium	None	Low	B-F, B-J	11	0		11	0	
013-MSS	4	Medium	High	None	Low	B-J	84	9		84	9	
013-MSS	5B	Medium	Medium	TASCS	Medium	B-J	10	1		10	1	
013-MSS	6B	Low	Medium	None	Low	B-F, B-J, C-F-2	238	0		243(a)	0	
013-MSS	7	Low	Low	None	Low	B-J	8	0		10(a)	0	
011-RCS	4(2)	Medium (High)	High	IGSCC	Low (Medium)	B-J	1	1		1	1	
011-RCS	4	Medium	High	None	Low	B-J	105	10		105	10	
010-RDS	2	High	High	CC	Medium	B-J	1	1		0(b)	0	
010-RDS	4	Medium	High	None	Low	B-J	1	1		2(b)	1	
010-RDS	6B	Low	Medium	None	Low	C-F-2	76	0		76	0	
014-RHS	2	High	High	EC	Medium	B-J	4	1		4	1	
014-RHS	2	High	High	TASCS	Medium	B-J	22	6		22	6	
014-RHS	4	Medium	High	None	Low	B-J, C-F-1, C-F-2	77	8		77	8	
014-RHS	5B(3)	Medium(High)	Medium	TASCS,FAC	Medium	C-F-2	17	0		17	0	
014-RHS	5B	Medium	Medium	TASCS	Medium	C-F-2	208	23		208	23	
014-RHS	6B(3)	Low(High)	Medium	FAC	Low(High)	B-J, C-F-2	3	0		3	0	
014-RHS	6A	Low	Low	TASCS	Medium	N/A	16	0		16	0	

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-007

Table 1
Inspection Location Selection Comparison Between ASME Section XI Code and EPRI TR-112657 by Risk Category

System	Risk		Consequence Rank	Failure Potential		Code Category	1ST. Approved RI-ISI Interval			New RI-ISI Interval		
	Category	Rank		DMs	Rank		Weld Count	RI-ISI	Other	Weld Count	RI-ISI	Other
014-RHS	6B	Low	Medium	None	Low	B-J, C-F-2	537	0		536(e)	0	
014-RHS	7	Low	Low	None	Low	B-J, C-F-1, C-F-2	104	0		104	0	
006-RPV	2	High	High	IGSCC, CC	Medium	B-J	21	6		0(d)	0	
006-RPV	4	Medium	High	None	Low	B-J	3	0		3	0	
006-RPV	4(2)	Medium(High)	High	IGSCC	Low(Medium)	B-F	9	2		30(d)	4	
006-RPV	6B	Low	Medium	None	Low	B-J	1	0		1	0	
009-SLS	2	High	High	TASCS	Medium	B-J	3	1		3	1	
009-SLS	4	Medium	High	None	Low	B-J	14	2		14	2	
009-SLS	5B	Medium	Medium	TASCS	Medium	B-J	7	1		7	1	
009-SLS	6B	Low	Medium	None	Low	B-J	26	0		26	0	
012-WCS	2	High	High	TASCS	Medium	B-J	10	0		10	0	
012-WCS	2	High	High	TASCS,IGSCC	Medium	B-J	8	5		8	5	
012-WCS	4(2)	Medium(High)	High	IGSCC	Low(Medium)	B-J	10	5		10	5	
012-WCS	4(1)	Medium(High)	High	FAC	Low(High)	B-J	4	0		4	0	
012-WCS	4	Medium	High	None	Low	B-J	75	4		75	4	
012-WCS	5B(3)	Medium(High)	Medium	TASCS,FAC	Medium(High)	B-J	4	0		4	0	
012-WCS	5B	Medium	Medium	TASCS	Medium	B-J	25	3		25	3	
012-WCS	6B(3)	Medium(High)	Medium	FAC	Low(High)	B-J	2	0		2	0	
012-WCS	6B	Low	Medium	None	Low	B-J	15	0		15	0	
012-WCS	7	Low	Low	None	Low	B-J	8	0		8	0	
							2482	125		2492	120	

Notes to Table 1:

(a) MSS – main steam drain modification added five (5) welds to RC 6 and 7.
(b) RDS – one (1) weld moved from RC 2 to RC 4 as a result of CC updated evaluation;
(c) Socket welds require only a VT-2 examination each outage, in conjunction with system leakage test
(d) RPV – twenty-one (21) welds moved from RC 2 to RC 4 as a result of CC updated evaluation;
(e) RHS – one (1) weld deleted from RC 6 as a result of piping modification;
(f) FWS – two (2) welds were moved from RC 5 to RC 6 as a result of CC updated evaluation;
(g) ICS – one (1) weld added to RC 2 as a result of piping and valve modification;
(h) ICS – two (2) welds added to RC 4 as a result of piping and valve modification;
(i) ICS – one (1) weld added to RC 5 as a result of piping and valve modification;
(j) FWS- CC mechanism removed as a result of CC update evaluation;

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-008

Proposed Request for Relief
In Accordance with 10 CFR 50.55a(g)(5)(iii)

A. COMPONENT IDENTIFICATION:

System: Low Pressure Core Spray (LPCS) and Residual Heat Removal (RHS)

Code Class: ASME Code Class 2

Component Description: LPCS and RHS valve body welds

Components Affected:

Weld Numbers	Description	Code Category	Code Item Number
2CSL*HCV118, VWHCV118-C	Valve Body Welds	C-G	C6.20
2CSL*HCV118, VWHCV118-D	Valve Body Welds	C-G	C6.20
2CSL*HCV118, VWHCV118-LW	Valve Body Welds	C-G	C6.20
2CSL*HCV119, WVHCV119-C	Valve Body Welds	C-G	C6.20
2CSL*HCV119, WVHCV-119-D	Valve Body Welds	C-G	C6.20
2CSL*HCV119, WVHCV119-LW	Valve Body Welds	C-G	C6.20
2CSL*MOV112, VWMOV112-C	Valve Body Welds	C-G	C6.20
2CSL*MOV112, VWMOV112-D	Valve Body Welds	C-G	C6.20
2CSL*MOV112, VWMOV112-LW	Valve Body Welds	C-G	C6.20
2CSL*V121, VWV121-C	Valve Body Welds	C-G	C6.20
2CSL*V121, VBW121-LW	Valve Body Welds	C-G	C6.20
2RHS*V376, VWV376-LW	Valve Body Welds	C-G	C6.20
2RHS*V378, VWV378-LW	Valve Body Welds	C-G	C6.20
2RHS*MOV8A, VWMOV8A-D	Valve Body Welds	C-G	C6.20
2RHS*MOV1C, VWMOV1C-C	Valve Body Welds	C-G	C6.20
2RHS*MOV1C, VWMOV1C-D	Valve Body Welds	C-G	C6.20
2RHS*MOV1C, VWMOV1C-LW	Valve Body Welds	C-G	C6.20
2RHS*MOV2A, VWMOV2A-C	Valve Body Welds	C-G	C6.20
2RHS*MOV2A, VWMOV2A-D	Valve Body Welds	C-G	C6.20
2RHS*MOV8A, VWMOV8A-C	Valve Body Welds	C-G	C6.20

B. **APPLICABLE CODE REQUIREMENTS:**

The ASME Code, Section XI, applicable to the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

Sub-article IWC-2500 requires components specified in Table IWC-2500-1 to be examined. Table IWC-2500-1 requires essentially 100% surface examination of all components in each piping run examined under Examination Category C-F each inspection interval (i.e., Examination Category C-G, Pressure Retaining Welds in Pumps and Valves, Item No. C6.20 Valve Body Welds).

C. **REASON FOR REQUEST FOR RELIEF:**

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(g)(5)(iii), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief from the requirement of ASME Code Section XI, Sub-article IWC-2500, Table IWC-2500-1, 100% Surface Examination of Examination Category C-G, "Pressure Retaining Welds in Pumps and Valves, " Examination Item Number C6.20, "Valve Body Welds.

Accessibility to the valve body welds is limited due to permanent interferences.

D. **BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:**

A significant portion of the required code coverage has been achieved, as noted below in Table 1, for the twenty welds for which relief is requested. This coverage assures an acceptable level of inservice structural integrity. To increase the percent of coverage, major redesign and modification would be required without a compensating increase in the level of quality or safety.

TABLE 1
PERCENT CODE REQUIRED SURFACE ACHIEVED

COMPONENT IDENTIFICATION	CODE REQUIRED SURFACE ACHIEVED	COMPONENT IDENTIFICATION	CODE REQUIRED SURFACE ACHIEVED
2CSL*HCV118, VWHCV118-C	86% MT coverage	2RHS*V376, VWV376-LW	82% coverage
2CSL*HCV118, VWHCV118-D	86% MT coverage	2RHS*V378, VWV378-LW	81% coverage
2CSL*HCV118, VWHCV118-LW	76% PT coverage	2RHS*MOV8A, VWMOV8A-D	80% PT coverage
2CSL*HCV119, WVHCV119-C	60% PT coverage	2RHS*MOV1C , VWMOV1C-C	70% PT coverage
2CSL*HCV119, WVHCV119-D	80% PT coverage	2RHS*MOV1C , VWMOV1C-D	84% PT coverage
2CSL*HCV119, WVHCV119-LW	82% MT coverage	2RHS*MOV1C , VWMOV1C-LW	81% PT coverage
2CSL*MOV112, VWMOV112-C	80% MT coverage	2RHS*MOV2A , VWMOV2A-C	60% PT coverage
2CSL*MOV112, VWMOV112-D	60% PT coverage	2RHS*MOV2A , VWMOV2A-D	80% PT coverage
2CSL*MOV112 , VWMOV112-LW	87% MT coverage	2RHS*MOV8A , VWMOV8A-C	60% PT coverage
2CSL*V121, VWV121-C	80% MT coverage		
2CSL*V121, VBW121-LW	87% MT coverage		

NMPNS has demonstrated that the permanent limitations and the percent of examination coverage achieved has essently remained unchanged and will continue to be met. Therefore, the requested duration of the proposed alternative is justified.

Proposed Alternative

Nine Mile Point Nuclear Station will implement the ISI examination requirements of the ASME Code Section XI, Table IWC-2500-1, Examination Category C-G, Item No. C6.20, to the maximum extent possible.

E. IMPLEMENTATION SCHEDULE:

Relief is requested for the Third Ten-Year Inservice Inspection Interval (April 5, 2008 to April 4, 2018)

F. PRECEDENTS:

This request for relief was originally submitted as RR-IWC-5, Part 3, under NMPNS letter dated July 30, 1999 and granted under NRC Safety Evaluation, dated March 3, 2000 (Reference 1).

G. ATTACHMENTS:

None

H. REFERENCES:

1. USNRC Safety Evaluation, dated 03/03/00, TAC No. MA6273

Nine Mile Point Nuclear Station, Unit 2
Third Inservice Inspection Interval
Request Number 2ISI-009

Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(ii)

A. COMPONENT IDENTIFICATION:

System: High Pressure Core Spray (HPCS), Low Pressure Core Spray (LPCS), Residual Heat Removal (RHS) and Reactor Core Isolation Cooling (RCIC).

Code Class: ASME Code Class 2

Component Description: Thirty-four (34) weldments, on six (6) separate pumps; seven (7) integral attachment (Cat. C-C) welds, and 27 pressure retaining (Cat. C-G) welds:

Components Affected:

Pump Numbers	Pump Weld Numbers	Description	Code Category	Code Item Number
2CSH*P1	PW207 PW208 PW209 PW212 PW217 PW218 PW219	Pump Casing Welds	C-G	C6.10
2CSL*P1	PW311 PW312 PW315 PW316 PW319	Pump Casing Welds	C-G	C6.10
2RHS*P1A	PW111A, PW112A PW113A PW116A PW118A PW121A	Pump Casing Welds Welded Attachment	C-G C-C	C6.10 C3.30
2RHS*P1B	PW111B PW112B PW113B PW116B PW118B PW121B	Pump Casing Welds Welded Attachment	C-G C-C	C6.10 C3.30
2RHS*P1C	PW111C PW112C PW113C PW116C PW118C PW121C	Pump Casing Welds Welded Attachment	C-G C-C	C6.10 C3.30

Pump Numbers	Pump Weld Numbers	Description	Code Category	Code Item Number
2ICS*P1	PW400 PW401 PW402 PW403	Welded Attachment	C-C	C3.30

B. APPLICABLE CODE REQUIREMENTS:

The applicable ASME Code, Section XI, for the Nine Mile Point Nuclear Station (NMPNS), Unit 2, Third In-Service Inspection Program is the 2001 Edition through the 2003 Addenda.

Sub-article IWC-2500, Table IWC-2500-1, requires essentially 100% Surface Examination of Pump Casing Welds each inspection interval (i.e., Examination Category C-G, "Pressure Retaining Welds in Pumps and Valves," Examination Item Number C6.10, "Pump Casing Welds."

Sub-article IWC-2500, Table IWC-2500-1, requires essentially 100% Surface Examination of Pump Welded Attachments each inspection interval (i.e., Examination Category C-C, "Welded Attachments for Vessels, Piping, Pumps and Valves," Examination Item Number C3.30, "Pump Welded Attachments)".

C. REASON FOR REQUEST FOR RELIEF:

In accordance with the provisions of 10 CFR 50.55a, "Codes and Standards," paragraph 10 CFR 50.55a(a)(3), Nine Mile Point Nuclear Station, LLC (NMPNS), Unit 2 requests relief, from the requirement of ASME Code Section XI, Sub article IWC-2500, Table IWC-2500-1, Surface Examination of Examination Category C-G, "Pressure Retaining Welds in Pumps and Valves," Examination Item Number C6.10, "Pump Casing Welds" and Surface Examination of Examination Category C-C, "Welded Attachments for Vessels, Piping, Pumps and Valves," Examination Item Number C3.10, "Pump Welded Attachments."

D. BASIS FOR RELIEF AND ALTERNATIVE EXAMINATIONS:

The pumps are installed in a concrete pit, thereby making the exterior of the casing welds and entire integral attachment welds inaccessible for surface examination. Examination of the casing welds would require either disassembly or removal from the pit. Examination of the integral attachment welds would require lifting the pump from the pit. The hardships associated with pump disassembly of lifting from the pit would far exceed any beneficial safety improvements that might be achieved by such an examination. For the integral attachments on pump ICS*P1, approximately 17% of each of the four welds is inaccessible. The pump design utilizes U shaped attachments that limit access to the entire weld surface.

Since these pumps are subject to testing per ASME O&M Code, loss of integrity of the pump casing welds would be detected during quarterly pressure, differential, and flow rate testing. Failure of integral attachments welds would be detected by quarterly vibration measurements. Furthermore, pump casing integrity is verified during system leakage testing.

Proposed Alternative:

Nine Mile Point Nuclear Station will continue to implement to the maximum extent possible the in-service surface examination requirements of the ASME Code Section XI, Table IWC-2500-1, Examination Category C-G, Item No. C6.10 and Examination Category C-C, "Welded Attachments for Vessels, Piping, Pumps and Valves," Examination Item Number C3.30, "Pump

Welded Attachments" on welds of pumps that become accessible when disassembled for routine maintenance.

In summary, NMPNS has concluded that based on the permanent limitations and the percent of examination coverage achieved that continued approval of the request for relief is justified and presents a hardship without a compensating increase in safety, in accordance with 10 CFR 50.55a (a)(3)(ii).

E. IMPLEMENTATION SCHEDULE

Relief is requested for the Third Ten-Year Inservice Inspection Interval. (April 5, 2008 to April 4, 2018)

F. PRECEDENTS:

This request for relief was originally submitted as RR-IWC-!, under NMPNS letter dated July 30, 1999 and granted under NRC Safety Evaluation, dated March 3, 2000 (Reference 1).

G. ATTACHMENTS:

None

H. REFERENCES:

1. USNRC Safety Evaluation, dated March 3, 2000, TAC No. MA6273.

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APPENDIX I - ASME CODE CASES

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I.0 ASME Code Cases

I.1 ASME Section XI Code Cases Used in the Preparation of ISI Program

ASME Code Cases approved through Regulatory Guide 1.147 may be proposed for revision to the inspection plan. Specific Code Cases used in the preparation of the inspection plan are identified below.

I.2 ASME Section XI Code Case Listing

The following ASME Code Cases have been reviewed for possible use during the Third In-service Inspection Interval. Code Cases used during the inspection interval shall be identified with the specific component within the Inspection Plan and Schedule.

ASME SECTION XI CODE CASE LISTING			
CODE CASE NUMBER	**TITLE**	**RG 1.147 Revision**	**IMPLEMENTED IN PROGRAM**
N-416-3	Alternative Pressure Test Requirement for Welded Repairs or Installation of Replacement Items by Welding, Class 1, 2 and 3, Section XI, Division 1.	Rev. 15	No [1]
N-432-1	Repair Welding Using Automatic or Machine Gas Tungsten-Arc Welding (GTAW) Temper Bead Technique, Section XI, Division 1.	Rev. 15	No
N-460	Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1	Rev. 15	Yes
N-491-2	Rules for Examination of Class 1, 2, 3, and MC Component Supports of Light Water Cooled Power Plants, Section XI, Division 1	Rev. 15	No
N-494-3	Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 ferritic Piping that exceed the Acceptance Standards of IWB-3514.2 and in Class 1 Austenitic Piping that exceed the Acceptance Standards of IWB-3514.3, Section XI, Division 1	Rev. 15	No
N-496-2	Helical Coil Threaded Inserts, Section XI, Division 1	Rev. 15	No
N-504-3	Alternative Rules for Repair of Class 1, 2 and 3 Austenitic Stainless Steel Piping, Section XI, Division 1	Rev. 15	No
Conditions: The provisions of Section XI, Nonmandatory Appendix Q, "Weld Overlay Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping Weldments," must also be met.			
N-508-3	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing, Section XI, Division 1	Rev. 15	No [2]

ASME SECTION XI CODE CASE LISTING			
CODE CASE NUMBER	**TITLE**	**RG 1.147 Revision**	**IMPLEMENTED IN PROGRAM**
N-513-2	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 and 3 Piping, Section XI, Division 1	Rev. 15	No
N-516-3	Underwater Welding, Section XI, Division 1	Rev. 15	No
Conditions: Licensees must obtain NRC approval in accordance with 10 CFR 50.55a(a)(3) regarding the technique to be used in the weld repair or replacement of irradiated material underwater.			
N-522	Pressure Testing of Containment Penetration Piping, Section XI, Division 1	Rev. 15	No [1]
N-526	Alternative Requirements for Successive Inspection of Class 1 and 2 Vessels, Section XI, Division 1	Rev. 15	Yes
N-532-4	Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission, Section XI, Division 1.	Rev. 15	Yes
N-534	Alternative Requirements for Pneumatic Pressure Testing, Section XI, Division 1	Rev. 15	No [1]
N-537	Location of Ultrasonic Depth Sizing Flaws, Section XI, Division 1.	Rev. 15	No
N-554-3	Alternative Requirements for Reconciliation of Replacement Items and additions of New Systems, Section XI, Division 1.	Rev. 15	No
N-566-2	Corrective Action for Leakage Identified at Bolted Connections, Section XI, Division 1	Rev. 15	No [1]
N-573	Transfer of Procedure Qualification Records Between Owners, Section XI, Division 1.	Rev. 15	No
N-578-1	Risk-Informed Requirements for Class 1, 2 and 3 Piping Method B, Section XI, Division 1	N/A	Yes thru RR-2ISI-007
N-583	Annual Training Alternative, Section XI, Division 1	Rev. 15	No
Conditions: (1) Supplemental practice shall be performed on material or welds that contain cracks, or by analyzing prerecorded data from material or welds that contain cracks. (2) The training must be completed no earlier than 6 months prior to performing ultrasonic examinations at a licensee's facility.			
N-586-1	Alternative Additional Examination Requirements for Classes 1, 2 and 3 Piping, Components and Supports, Section XI, Division 1	Rev. 15	No
N-613-1	Ultrasonic Examination of Penetration Nozzles in Vessels Examination Category B-D, Item No's B3.10 and B3.90,	Rev. 15	Yes

ASME SECTION XI CODE CASE LISTING

CODE CASE NUMBER	TITLE	RG 1.147 Revision	IMPLEMENTED IN PROGRAM
	Reactor Nozzle-to-Vessel Welds, Figs. IWB-2500-7 (a), (b), and (c), Section XI, Division 1.		
N-617	Alternative Examination Distribution Requirements for Table IWC-2500-1, Examination Category C-G, Pressure Retaining Welds in Pumps and Valves, Section XI, Division 1	Rev. 15	No
N-623	Deferral of Inspections of Shell-to-Flange and Head-to-Flange Welds of a Reactor Vessel, Section XI, Division 1	Rev. 15	No
N-624	Successive Inspections, Section XI, Division 1	Rev. 15	No
N-638-1	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique, Section XI, Division 1	Rev.15	No
Conditions: UT volumetric examinations shall be performed with personnel and procedures qualified for the repaired volume and qualified by demonstration using representative samples which contain construction type flaws. The acceptance criteria of NB-5330 in the 1998 Edition through 2000 Addenda of Section III (Ref. 7) apply to all flaws identified within the repaired volume.			
N-640	Alternative Reference Fracture Toughness for Development of P-T Limit Curves, Section XI, Division 1	Rev. 15	Thru Technical Specification Amendment
N-648-1	Alternative Requirements For Inner Radius Examination of Class 1 Reactor Vessel Nozzles, Section XI, Division 1	Rev.15	Yes
Condition: In place of a UT examination, licensees may perform a visual examination with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack, utilizing the allowable flaw length criteria of Table IWB-3512-1 with limiting assumptions on the flaw aspect ration. The provisions of Table IWB-2500-1, Examination B-D, continue to apply except that, in place of examination volumes, the surface to be examined are the external surfaces shown in the Figures applicable to this table (the external surface is from point M to point N in the figure)..			
N-716	Alternative Piping Classification and Examination Requirements, Section XI, Division 1	N/A	No

1 See Pressure Test Program
2 See Snubber Examination and Testing Program

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Class 1, 2, and 3 Weld/Support Location Maps J-2

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DRAWING NUMBER	**SYSTEM**	**TITLE**
ISI-20-01	ASS	Auxiliary Steam System
ISI-25-01	CSH	High Pressure Core Spray System
ISI-25-03	CSH	High Pressure Core Spray System
ISI-25-04	CSH	High Pressure Core Spray System
ISI-25-05	CSH	High Pressure Core Spray System
ISI-25-08	CSH	High Pressure Core Spray System
ISI-25-09	CSH	High Pressure Core Spray System
ISI-25-10	CSH	High Pressure Core Spray System
ISI-25-13	CSH	High Pressure Core Spray System
ISI-25-17	CSH	High Pressure Core Spray System
ISI-25-18	CSH	High Pressure Core Spray System
ISI-26-01	CSL	Low Pressure Core Spray System
ISI-26-02	CSL	Low Pressure Core Spray System
ISI-26-03	CSL	Low Pressure Core Spray System
ISI-26-04	CSL	Low Pressure Core Spray System
ISI-26-05	CSL	Low Pressure Core Spray System
ISI-26-06	CSL	Low Pressure Core Spray System
ISI-07-A	DER	Reactor Building Equipment Drains
ISI-47-13	FWS	Feedwater System
ISI-47-14	FWS	Feedwater System
ISI-47-15	FWS	Feedwater System
ISI-47-16	FWS	Feedwater System
ISI-47-17	FWS	Feedwater System
ISI-47-18	FWS	Feedwater System

APPENDIX K
CLASS 1, 2 and 3 WELD/SUPPORT LOCATION MAPS

DRAWING NUMBER	SYSTEM	TITLE
ISI-57-01	ICS	Reactor Core Isolation Cooling System
ISI-57-02	ICS	Reactor Core Isolation Cooling System
ISI-57-03	ICS	Reactor Core Isolation Cooling System
ISI-57-04	ICS	Reactor Core Isolation Cooling System
ISI-57-05	ICS	Reactor Core Isolation Cooling System
ISI-57-06	ICS	Reactor Core Isolation Cooling System
ISI-57-07	ICS	Reactor Core Isolation Cooling System
ISI-57-08	ICS	Reactor Core Isolation Cooling System
ISI-57-09	ICS	Reactor Core Isolation Cooling System
ISI-322-B	ISC	Reactor Vessel Instrumentation System
ISI-01-03	MSS	Main Steam System
ISI-01-04	MSS	Main Steam System, Loops A, B, C, D
ISI-01-05	MSS	Main Steam System, Loops A, B, C, D
ISI-01-06	MSS	Main Steam System
ISI-01-07	MSS	Main Steam System
ISI-01-13	MSS	Main Steam System
ISI-01-14	MSS	Main Steam System
ISI-01-15	MSS	Main Steam System
ISI-01-16	MSS	Main Steam System
ISI-01-17	MSS	Main Steam System
ISI-01-19	MSS	Main Steam System, Loop A, B, C, D, Drains
ISI-01-20	MSS	Main Steam System, Drain Header
ISI-01-21	MSS	Main Steam System, Drain Header
ISI-106-A	MSS	Main Steam System
ISI-107-A	MSS	Main Steam System

APPENDIX K CLASS 1, 2 and 3 WELD/SUPPORT LOCATION MAPS		
DRAWING NUMBER	**SYSTEM**	**TITLE**
ISI-110-A	MSS	Main Steam System
ISI-110-B	MSS	Main Steam System
ISI-47-A	MSS	Main Steam System, Drain Loops A, B, C, D
ISI-64-00-1	RCS	Reactor Recirculation System
ISI-64-00-2	RCS	Reactor Recirculation System
ISI-64-00-3	RCS	Reactor Recirculation System
ISI-64-00-4	RCS	Reactor Recirculation System, Loop B South Side
ISI-64-00-5	RCS	Reactor Recirculation System
ISI-64-00-6	RCS	Reactor Recirculation System
ISI-65-00-1	RDS	CRD Hydraulic System
ISI-65-00-2	RDS	CRD Hydraulic System
ISI-66-05	RHS	Residual Heat Removal System, Steam Condensing Loop B
ISI-66-06	RHS	Residual Heat Removal System
ISI-66-09	RHS	Residual Heat Removal System
ISI-66-10	RHS	Residual Heat Removal System
ISI-66-13	RHS	Residual Heat Removal System
ISI-66-14	RHS	Residual Heat Removal System, Shutdown Cooling Loop A
ISI-66-15	RHS	Residual Heat Removal System
ISI-66-16	RHS	Residual Heat Removal System
ISI-66-17	RHS	Residual Heat Removal System
ISI-66-18	RHS	Residual Heat Removal System
ISI-66-19	RHS	Residual Heat Removal System
ISI-66-20	RHS	Residual Heat Removal System
ISI-66-21	RHS	Residual Heat Removal System
ISI-66-22	RHS	Residual Heat Removal System

APPENDIX K
CLASS 1, 2 and 3 WELD/SUPPORT LOCATION MAPS

DRAWING NUMBER	SYSTEM	TITLE
ISI-66-23	RHS	Residual Heat Removal System
ISI-66-24	RHS	Residual Heat Removal System
ISI-66-25	RHS	Residual Heat Removal System
ISI-66-26	RHS	Residual Heat Removal System
ISI-66-27	RHS	Residual Heat Removal System
ISI-66-28	RHS	Residual Heat Removal System
ISI-66-29	RHS	Residual Heat Removal System
ISI-66-30	RHS	Residual Heat Removal System
ISI-66-31	RHS	Residual Heat Removal System
ISI-66-32	RHS	Residual Heat Removal System
ISI-66-34	RHS	Residual Heat Removal System
ISI-66-42	RHS	Residual Heat Removal System
ISI-66-47	RHS	Residual Heat Removal System
ISI-66-50	RHS	Residual Heat Removal System
ISI-66-51	RHS	Residual Heat Removal System
ISI-66-52	RHS	Residual Heat Removal System
ISI-66-53	RHS	Residual Heat Removal System
ISI-66-54	RHS	Residual Heat Removal System
ISI-66-55	RHS	Residual Heat Removal System
ISI-66-57	RHS	Residual Heat Removal System
ISI-66-58	RHS	Residual Heat Removal System
ISI-66-60	RHS	Residual Heat Removal System
ISI-177-A	RHS	Residual Heat Removal System
ISI-09-05	WCS	Reactor Water Cleanup System
isi-09-06	WCS	Reactor Water Cleanup System

APPENDIX K CLASS 1, 2 and 3 WELD/SUPPORT LOCATION MAPS		
DRAWING NUMBER	**SYSTEM**	**TITLE**
isi-09-14	WCS	Reactor Water Cleanup System
ISI-12-A	WCS	Reactor Water Cleanup System
ISI-94-A	WCS	Reactor Water Cleanup System
ISI-100-A	WCS	Reactor Water Cleanup System
ISI-217-A	WCS	Reactor Water Cleanup System
ISI-75-A	SLS	Standby Liquid Control System
ISI-88-A	SLS	Standby Liquid Control System
ISI-88-B	SLS	Standby Liquid Control System