NIAGARA MOHAWK

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Nine Mile Point Nuclear Power Station

THIRD INSERVICE INSPECTION INTERVAL

INSERVICE INSPECTION PROGRAM PLAN

Prepared For

Nine Mile Point Nuclear Power Station
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Commercial Service Date:	December 26, 1969
NRC Docket Number:	50-220
Document Number:	NMP1-ISI-003
Revision Number: 0	Date: September 27, 1999

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999.9999999

OCR 9934401 49
IMAGE 9934401 46

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ABBREVIATIONS

Listed below are the abbreviations utilized in this document:

ANII	Authorized Nuclear Inservice Inspector
ANSI	American Nuclear Standard Institute
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
CFR	Code of Federal Regulations
CRC	Corrosion Resistant Cladding
CRD	Control Rod Drive System
CRA	Code Required Surface Area
CRS	Core Spray System
CT	Condensate Transfer
CTN-SP	Containment Spray System
CRV	Code Required Volume
CU	Reactor Water Clean-Up System
ECS	Emergency Cooling System
DPI	Drywell Inerting CAD and Purge System
FSAR	Final Safety Analysis Report
FWS	Feedwater System
FPS	Spent Fuel Pool Filtering and Cooling System
GE	General Electric

ABBREVIATIONS (Continued)

GL	Generic Letter
HPCI	High Pressure Coolant Injection System
IEB	Inspection and Enforcement Bulletin (USNRC)
IEN	Inspection and Enforcement Notice (USNRC)
IHSI	Induction Heat Stress Improvement
ISI	Inservice Inspection
IVVI	In-Vessel Visual Inspections
LPS	Liquid Poison System
MSS	Main Steam System
MT	Magnetic Particle Examination
N/A	Not Applicable
NBVI	Nuclear Boiler Vessel Instrumentation
NDE	Nondestructive Examination
NMP1	Nine Mile Point Nuclear Power Station Unit1
NPS	Nominal Pipe Size
NMPC	Niagara Mohawk Power Corporation
NSSS	Nuclear Steam Supply System
NWT	Nominal Wall Thickness
OD	Outside Diameter
P&ID	Piping and Instrumentation Diagram
PT	Liquid Penetrant Examination
RBCLC	Reactor Building Closed Loop Cooling System
R.G.	Regulatory Guide (USNRC)

ABBREVIATIONS (Continued)

RHR	Residual Heat Removal System
RHSI	Resistant Heat Stress Improvement
RICSIL	Rapid Information Communication Services Information Letter
RR	Reactor Recirculation System
RG	Regulatory Guide (NRC)
RPV	Reactor Pressure Vessel
RWC	Reactor Water Cleanup System
RXVI	Reactor Vessel Instrumentation
SD	Structural Discontinuity
SDC	Shutdown Cooling Water System
SIL	Services Information Letter
SRP	Standard Review Plan (USNRC)
SWS	Service Water System
SURF	Surface Examination
SI	Stress Improvement
T.S.	Technical Specifications
TE	Terminal End
UFSAR	Updated Final 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))
WinISI	Computerized Inservice Inspection Data Base Management Software

GLOSSARY OF TERMS

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 repairs (that do not include welding or brazing) are performed in accordance with the rules and requirements of Section XI.

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

COMPONENT - an item in a nuclear power plant such as a vessel, pump, valve or piping system.

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

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

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

CONSTRUCTION CODE - the body of technical requirements that governed the construction of the item.

Defect - a flaw (imperfection or unintentional discontinuity) of such size, shape, orientation, location, or properties as to be reject able

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

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.

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.

GLOSSARY OF TERMS - Continued

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

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

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.

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. Section XI

Inservice Inspection Program Plan -A term used to address the programmatic requirements as required by 10 CFR 50.55a and USNRC Guidelines, dated 1981.

Inservice Inspection Plan and Schedule - A term used to address the ASME Section XI, Appendix F , Inspection Plan.

Long-Term Ten-Year Inspection Plan - A term used to address the entire data base printout (WinISI), that includes all items subject to examination.

Inservice Inspection Period Plan - A term used to address those items scheduled for an inspection period (Period 1, 2 or 3 as applicable), as required by Inspection Program "B".

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

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

INSPECTION PERIOD - a duration of time within an inspection interval, as determined by Plant Technical Specifications and/or Inspection Program B of Section XI.

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

GLOSSARY OF TERMS - Continued

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.

OPERATIONAL READINESS - The ability of a component or system to perform its intended function when required.

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

OWNER - the organization legally responsible for the operation, maintenance, safety and power generation of the nuclear power plant.

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

RECORDABLE INDICATION - an indication which equals or exceeds the recording criteria

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.

SUBSEQUENT PERIOD - is the next following period, even if it is in the following 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.

STRUCTURAL DISCONTINUITY - As used in this program: includes pipe weld joints to vessel nozzles, valve bodies, pump casings, pipe fittings (such as tees, elbows, reducers, flanges, etc. conforming to ANSI B16.9) and pipe branch connections and fittings.

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

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 Inservice Inspection Program for the Third Ten-Year Inservice Inspection Interval for the Nine Mile Point Nuclear Power Station, Unit 1.

This document defines the basis for those pressure retaining components and/or systems (including their supports), which are classified Quality Group A, B, and C, (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 Power Station, Unit 1, Third Inservice Inspection Interval Program Plan and Schedule is the 1989 Edition, with no Addenda of Section XI, hereafter referred to as the Code.

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SECTION 1 - INTRODUCTION

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1.0 INTRODUCTION

This document details the basis and plans for the Inservice Inspection Program for the Third Ten-Year Inservice Inspection Interval for components, welds, supports, bolting, pump casings, valve bodies, and reactor pressure vessel internals for the Nine Mile Point Nuclear Power Station, Unit 1.

Niagara Mohawk Power Corporation (NMPC), is the Owner of Record.

The Commercial Service Date for the Nine Mile Point Nuclear Power Station, Unit 1 is December 26, 1969.

1.1 Inspection Interval

The Third Inservice Inspection Interval becomes effective on December 26, 1999 and is scheduled to end on December 25, 2009.

1.2 Inspection Periods

The Third Inservice 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 IWB-2412(b) the inspection period specified below may be decreased or extended by as much as 1 year to enable inspection to coincide with NMP1's plant outages.

TABLE 1-2
NMP1 INSERVICE INSPECTION PERIODS

INSPECTION PERIODS	PERIOD START DATES	PERIOD END DATES	REFUEL OUTAGE	REFUEL OUTAGE YEAR
1	December 26, 1999	December 25, 2002	RFO-16	2001
2	December 25, 2002	December 26, 2006	RFO-17 RFO-18	2003 2005
3	December 26, 2006	December 25, 2009	RFO-19	2007

* The plant operating license is currently scheduled to expire on August 22, 2009.

1.3 Applicable Documents

The Third Inservice Inspection Program for Quality Group A, B, and C (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 document where these document are used

in the preparation of this program are addressed within the area affected.

- **Code of Federal Regulations**

  10 CFR 50.55(a) Code of Federal Regulations;

  Federal Register, Volume 64, Number 183, dated September 22, 1999, amendment to the regulation.

- **ASME Code Editions and Addenda**

  ASME Boiler and Pressure Vessel Code, Sections V, 1989 Edition, "Nondestructive Examination"

  ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition, "Rules for Inservice Inspection of Nuclear Power Plant Components"

  ASME Boiler and Pressure Vessel Code, Section XI, 1992 Edition through the 1992 Addenda, "Rules for Inservice Inspection of Nuclear Power Plant Components", Subsections IWE and IWL.

- **USNRC Regulatory Guides**

  The following list of Regulatory Guides are applicable to the Nine Mile Point Nuclear Power Station Third Inservice 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 Inservice Inspection Code Case Acceptability ASME Section XI, Division 1, Revision 12..

- **NMP1 Specific Documents**

  Nine Mile Point Unit 1 Updated Final Safety Analysis Report, Sections 1, 5, 7, 9, 12 and 16.

  Nine Mile Point Unit 1 Technical Specifications, USNRC Docket number 50-220, Sections 3.6 and 4.6.

- **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 0619, BWR Feedwater Nozzle and CRD Return Lines.

- **USNRC Bulletins**

  82-03 Stress Corrosion Cracking in Thick-Wall, Large-Diameter, Stainless Steel, Recirculation System Piping at BWR Plants, Revision 1, October 28, 1982.

- **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.

  81-11 Feedwater and Control Rod Drive Nozzle Cracking,

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

  90-09 Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions, December 11, 1990.

  94-03 Intergranular Stress Corrosion (IGSCC) Cracking of Core Shroud in Boiling Water Reactors, July 25, 1994.

  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 complete BWRVIP implementation criteria for the Third Ten Year Inservice Inspection Interval is currently under development. Upon completion of this process the applicable information will be incorporated within ISI Program. General Information pertaining to BWRVIPs implementation is contained in the ISI Program NMP1-ISI-003, Section 6.0 Titled Augmented Examinations.

- **USNRC Informational Notices**

  89-79 Degraded Coatings and Corrosion of Steel Containment Vessels, December 1, 1989.

- **ASME Code Cases**

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 this document are identified below.

N-416-1	Alternative Pressure Test Requirements for Welded Repairs or Installation of Replacement Items by Welding, Class 1, 2 and 3, Section XI, Division 1. RG 1.147,Rev. 12
N-460	Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1. RG 1.147, Rev. 12
N-491-1	Alternative Rules for Examination of Class 1, 2, 3 and MC Component Supports of Light Water Cooled Power Plants, Section XI, Division 1. RG 1.147, Rev. 12
N-509	Alternative Rules for the Selection and Examination of Class 1, 2 and 3 Integrally Welded Attachments, Section XI, Division 1. RG 1.147, Rev. 12, Subject to conditions.
N-524	Alternative Examination Requirements for Longitudinal Welds in Class 1 and 2 Piping Section XI, Division 1. RG 1.147, Rev. 12.
N-526	Alternative Requirements for Successive Inspection of Class 1 and 2 Vessels, Section XI, Division 1. Subject to Request for Relief ISI-4.
N-532	Alternative Requirements to Repair and Replacement Documents Requirements and Inservice Summary Report Preparation and Submission As Required by IWA--4000 and IWA-5000, Section XI, Division 1. Subject to Request for Relief ISI-8.
N-573	Transfer of Procedure Qualification Records Between Owners, Section XI, Division 1. Subject to Request for Relief ISI-10.

Note: See Appendix D "Code Cases" of the 10 Year Inspection Plan for a complete listing and copy of applicable Code Cases..

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 Inservice Inspection requirements applicable to nondestructive examination and system pressure testing for the Third Inservice Inspection Interval are based on the rules set forth in the 1989 Edition of Section XI, that was endorsed twelve months prior to the start of the Third Inspection Interval.

1.4.2 Subsequent Code Editions and Addenda

As permitted by 10 CFR 50.55a(g)(4)(iv), the NMPC 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), 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. NMPC 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.

1.5 System Quality Group 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 Power Station, Unit 1, Updated Final Safety Analysis Report (UFSAR).

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

1.5.1 Quality Group A (ASME Code Class 1)

Quality Group A system boundaries were developed based on 10 CFR 50.2(v), and the NMP1 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.

1.5.2 Quality Group B (ASME Code Class 2)

Quality Group B system boundaries were developed based on Regulatory Guide 1.26 and the NMP1 FSAR, and apply to those components of the Reactor Coolant System not classified as Quality Group A, (ASME Code Class 1), and that are safety-related.

1.5.3 Quality Group C (ASME Code Class 3)

Quality Group C system boundaries were developed based on Regulatory Guide 1.26 and the NMP1 FSAR, and apply to those components that are not classified as Quality Group A or B, (ASME Code Class 1 or 2), and that are safety-related.

1.5.4 Quality Group D (Non-Nuclear Safety-Related)

Quality Group D applies to those components not related to nuclear safety, and as such are not included within this document. Exception, Reactor Water Cleanup System welds located outside the containment isolation valves. See Section 6 Augmented Examinations.

1.5.5 Application

Application of the rules of Section XI are governed by the group classification criteria as defined above. The rules of IWB, IWC, and IWD were applied to those systems whose components are classified Quality Group A, B, or C, (ASME Class 1, 2 or 3).

1.5.6 Optional Construction of an 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 penetrate the containment vessel which are required to be constructed to 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 Division.

1.5.8 Classification Diagrams

The system Quality Group A, B and C, (ASME Code Class 1, 2 and 3) classification interfaces between components of different quality groups applicable to Nine Mile Point Nuclear Power Station, are designated on various ASME Section XI Boundary Diagrams (P&I D). These designations identify the system class breaks by color coding.

The rules of IWB, IWC and IWD were applied to these drawings in order to determine those components/systems subject to examination/test. Components subject to surface, volumetric and visual examination are listed in the Ten-Year Inservice Inspection plan tables.

Appendix G provides a list of the applicable ASME Section XI Boundary diagrams (P&i Diagrams), to this program. Copies of these diagrams are available through the NMPC drawing control system.

1.6 Inspection Program B

The Nine Mile Point Nuclear Power 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

The required examinations in each Examination Category shall be completed during each inservice inspection interval, in accordance with 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) the percentage required by Note 2 of Examination Category B-D;

(3) the examinations that may be deferred to the end of an inspection interval, as specified in Table IWB-2500-1.

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

(5) Within various Code Categories the total number of items scheduled for examination exceeds Inspection Program "B" requirements. Adjustments to those Code Categories which exceed the allowable Program "B" percentages, may be reduced to meet Program "B" requirements.

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, % [Note (1) (2)]
NMP1 3rd. Inservice Inspection Interval	3	16%	34%
	7	50%	67%
	10	100%	100%
Note: (1) Except as noted in Table IWB-2500-1, B1.30.			

Note: (1) The examination of shell-to-flange welds may be performed during the first and third inspection periods in conjunction with the nozzle examinations of examination category B-D. At least 50% of shell-to-flange welds, shall be examined by the end of the First Inspection Period, and the remainder by the end of the Third Inspection Interval.

(2) At least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the first inspection period, and the remainder by the end of the last inspection period, of the respective inspection interval. (See paragraph 1.6.1 (2)).

1.7 Development of Inspection Program Plan

Sections 2 through 6 detail the narrative description of the Nine Mile Point Unit 1 Third Inservice Inspection Program Plan basis for Quality Group A, B or C, (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

NMPC may substitute items scheduled in the Inspection Plan for others not previously scheduled when the original selection was part of the additional piping welds. This substitution may be done due to such conditions as limited physical access, high radiation levels, etc. Such changes will be noted in the Summary Report submittal as required by IWA-6000 of the applicable Code Edition. Specific examinations that are required, and can not be completed within the period/interval will be identified within the Summary Report, and as applicable, may be the subject of a request for relief.

1.9 Exclusions/Exceptions

This paragraph defines the exclusions/exceptions, NMPC has taken due to the unit being Docketed prior to June 1978.

1.9.1 Examination Category B-J

All terminal ends and joints in each pipe or branch run connected to other components where the stress levels exceed either of the following limits under loads associated with specific seismic events and operational conditions:

(1) Primary plus secondary stress intensity range of 2.4Sm for ferritic and stainless steel

(2) cumulative usage factor U of 0.4

1.9.2 IWE Inspection Program

The Inservice Inspection Program for Class MC, Subsection IWE and IWL is not addressed within this program, with the exceptions of Repairs and Replacements as defined in Section 9.

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.

- Snubber Examination and Testing Program
- Repair and Replacement Program
- Inservice Pump and Valve Test Program
- Metal Containment Examination Program
- System Pressure Test Program
- Containment Pressure Test Program

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2.0 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 1 (NMP1), Final Safety Analysis Report (FSAR). The ASME Code Class 1 components and systems (including their supports) subject to examination and testing are described in detail below:

2.1 ASME Code Exemptions

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 which are operable from on-site emergency power.

(b) 1. Piping of 1" nominal pipe size and smaller; and

2. Components and their connections in piping of 1" nominal pipe size and smaller.

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

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

<u>Note 1:</u> NMPC submitted and received authorization to utilize an "Alternative for Examination of Reactor Pressure Vessel Shell Welds, (TAC No. MA4383). As authorized by the USNRC the use of PDI qualified personnel and procedures results in a more sensitive examination and will provide added assurance for flaw detection and sizing, and is an acceptable alternative to the requirements of the 1989 Edition of Section XI Code and Regulatory Guide 1.150. The error band for flaw sizing has been established within the limits of ASME Section XI, Appendix VIII.

Items B1.11, B1.12 - Shell Welds

Scope of Examination - includes volumetric examination of essentially 100% of all longitudinal and circumferential shell weld lengths. (does not include shell to flange weld). Pursuant to USNRC Generic Letter 98-05 and BWRVIP-05, NMPC applied for and was granted relief from performing examinations of the circumferential weld till the end of the NMP1 operating license. (August 22, 2009)

- (4) B1.11 Circumferential shell welds, none required
- (12) B1.12 Longitudinal shell welds, (12) required

Subject to Request for Relief: ISI-1 Granted under USNRC TAC No. MA4768, and ISI-4.

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

Scope of Examination - includes volumetric examination of essentially 100% of accessible length of all circumferential and meridional head welds.

- (2) B1.21 Circumferential head welds, (2) required
- (14) B1.22 Meridional head welds, (14) required

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

Scope of Examination - includes volumetric examination of essentially 100% of accessible length of all circumferential and meridional head welds.

- (1) B1.21 Circumferential head welds, (1) required
- (8) B1.22 Meridional head welds, (8) required

Subject to Request for Relief: ISI-2

Item B1.30 - Shell-to-Flange Weld

Scope of Examination - Volumetric examination of 100% of the shell to flange weld.

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

Subject to Request for Relief: ISI-2 and ISI-4.

Note 2: If partial examinations are conducted from the flange face, the remaining volumetric examinations required to be conducted from the vessel wall may be performed at or near the end of each inspection interval.

The examination may 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, and the remainder by the end of the Third Inspection Period.

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, 1/3 Each Period

Subject to Request for Relief: ISI-2

Item B1.51 - Repair Welds (Beltline Region)

- Not applicable to Nine Mile Point Nuclear Power 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 Power Station.

2.2.3 Category B-D, Full Penetration Welds of Nozzle in Vessels (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.

- (40) B3.90 RPV Nozzle Welds, (40) required
- (40) B3.100 RPV Nozzle Inner Radius, (40) required

Subject to Request for Relief: ISI-3

Note 3: At least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the First Inspection Period, and the remainder by the end of the inspection interval.

Augmented Examinations of the Feedwater Nozzle, in accordance with USNRC NUREG 0619, Generic Letter 81-11, I&E Bulletin 80-13, revision 1, Supplement 1 and GE-NE 523-A71-0594 are addressed in Section 6, Augmented Examinations. Were practical Code credit will be taken during these Augmented examination.

Pressurizer: Items B3.110, B3.120

- Not applicable to Nine Mile Point Nuclear Power Station.

Steam Generators: Items B3.130, B3.140

- Not applicable to Nine Mile Point Nuclear Power Station.

Heat Exchanger: Items B3.150, B3.160

- Not applicable to Nine Mile Point Nuclear Power Station.

2.2.4 Category B-E, Pressure Retaining Partial Penetration Welds in Vessels

Items B4.11, B4.12, B4.13 - Vessel Nozzles, Control Rod Drive Nozzles, Instrumentation Nozzles

Scope of Examination - Visual VT-2 examination on 25% of all partial penetration welds each interval. The examinations are performed during the System Pressure Testing. These examinations and tests are addressed in the Nine Mile Point Unit 1 Inservice Pressure Test Program, Document NMP1-PT-003..

- (0) B4.11 Vessel nozzles, not applicable to NMP1
- (129) B4.12 Control rod drive nozzles, (32) required
- (64) B4.13 Instrumentation nozzles, (16) required

2.2.5 Category B-F, Pressure Retaining Dissimilar Metal Welds

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

Scope of Examination - 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.

Examination Category B-F welds are scheduled and examined as part of the IGSCC Augmented Inspection Program. The extent and frequency of the examinations are in accordance with NUREG 0313, Revision 2 and Generic Letter GL 88-01, Supplement 1. See Section 6.0 of this Program for details. Completed examinations shall be used to satisfy the percentage requirements of Inspection Program "B" and NUREG 0313, as applicable.

- (33) B5.10 NPS 4" or Larger Nozzle-to-Safe end butt welds, (33) req'd
- (4) B5.20 Less than NPS 4" Nozzle-to-Safe end butt welds,(4) req'd
- (N/A) B5.30 Nozzle-to-Safe end socket welds, Not applicable to NMP1

Note 4: Augmented examination requirements of NUREG-0313, Rev. 2, NRC Generic Letter 88-01, Sup. 1, BWRVIP-06, 27, and 49, SIL 455, Rev. 1, Sup. 1, SIL 571, and RICSIL 072 are discussed in Section 6 of this document.

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

- Not applicable to Nine Mile Point Nuclear Power Station.

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

- Not applicable to Nine Mile Point Nuclear Power Station.

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

- Not applicable to Nine Mile Point Nuclear Power Station.

Piping: Items B5.130, B5.140, B5.150 - Dissimilar Metal Butt Welds > or = 4" NPS, < 4" NPS, Socket Weld

Scope of Examination - 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.

Examination Category B-F welds are scheduled and examined as part of the IGSCC Augmented Inspection Program. The extent and frequency of examinations are in accordance with NUREG 0313, Revision 2 and Generic Letter GL 88-01, Supplement 1. See Section 6.0 of this Program for details. Completed examinations shall be used to satisfy both Inspection Program "B" and NUREG 0313 requirements.

- (N/A) B5.130 ≥ 4" NPS dissimilar butt welds, Not applicable to NMP1
- (N/A) B5.140 < 4" NPS dissimilar butt welds, Not applicable to NMP1
- (N/A) B5.150 dissimilar socket welds, Not applicable to NMP1

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

Reactor Vessel: Items B6.10, B6.20, B6.30, B6.40, B6.50

Scope of Examination - Examination includes all bolts, studs, nuts, bushings, and threads in flange stud holes. Bolting may be examined in place under tension, when the connection is disassembled, or when the bolting is removed. For heat exchangers, piping, pumps, and valves, examinations are limited to components selected for examination under Examination Categories B-B, B-J, B-L-2, and B-M-2.

Examinations consist of visual exams of reactor vessel closure head nuts, volumetric exams of RPV studs in place, and surface exams of RPV studs when removed. Regulatory Guide 1.65, regulatory position C.4.b will be invoked by NMPC to examine a representative sample of a minimum of (12) studs on a geometric distribution of (3)studs within each 90 degree segment. A volumetric examination of the threads in the base material of the reactor vessel flange will be conducted only when the connections are disassembled. A Visual (VT-1)

examination of the RV washers and bushings may be examined in place, when the connection is disassembled or when the bolting is removed. Flange surfaces, when the connection is disassembled, include 1 inch annular surface of flange surrounding each stud.

- (64) B6.10 Nuts, (64) required, 1/3 each period
- (64) B6.20 Studs in Place, (64) required, 1/3 each period
- (64) B6.30 Studs, when removed, (12) min. required, (4) each period
- (64) B6.40 Threads in Ligaments, (64) required, 1/3 each period
- (128) B6.50 Washers, (128) required, 1/3 each period
- (64) B6.50 Bushings, (64) required, 1/3 each period

Subject to Request for Relief: ISI-11

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

- Not applicable to Nine Mile Point Nuclear Power Station.

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

- Not applicable to Nine Mile Point Nuclear Power Station.

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

- Not applicable to Nine Mile Point Nuclear Power Station.

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

- Not applicable to Nine Mile Point Nuclear Power Station.

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

Scope of Examination - All bolts, studs, nuts, bushings, and flange surfaces. Examinations applicable to five (5) Reactor Recirculation Pumps 32-185, 32-186, 32-187, 32-188 and 32-189.

Note 5: Pump bolting is limited to the 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.

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

required

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

Scope of Examination - 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.

- (5) B6.210 Valve Bolts, (3) required
- (5) B6.220 Valve Flanges, (3) required
- (9) B6.230 Valve Nuts, Bushings, washers, (5) required

2.2.7 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, B7.80

Scope of Examination - Visual VT-1 examination each interval of all bolts, studs, and nuts. Examinations are limited to components selected for examination under Examination Category B-B, B-J, B-L-2, and B-M-2.

- (18) B7.10 Reactor Pressure Vessel, (18) required
- (N/A) B7.20 Pressurizer, Not applicable to NMP1.
- (N/A) B7.30 Steam Generator, Not applicable to NMP1.
- (N/A) B7.40 Heat Exchanger, Not applicable to NMP1.
- (12) B7.50 Piping Flange Bolting, (12) required
- (80) B7.60 Pump, (5) pumps 16 cap screws per pump, one pump required
- (75) B7.70 Valves, (33) required
- (129) B7.80 CRD Housing, when disassembled

Note 6: Augmented examination requirements of SIL 419 and SIL 483 Revision 2 are discussed in Section 6 of this program.

2.2.8 Category B-H, Integral Attachments for Vessels

Reactor Vessel: Item B8.10 - Integrally Welded Attachment

Scope of Examination - Examination includes essentially 100% of the length of the attachment weld at each attachment subject to examination. Examinations limited to the Reactor Pressure Vessel skirt weld and stabilizers.

Examinations will be performed in accordance with the alternate requirements of Code Case N-509, "Alternative Rules for the Selection and Examination of Class 1, 2 and 3 Integrally Welded Attachments Section XI, Division 1". Code Examination Categories and Item Numbers are as denoted in the Code Case.

Note 7: See Examination Category B-K

Pressurizer: Item B8.20 - Integrally Welded Attachment

- Not applicable to Nine Mile Point Nuclear Power Station.

Steam Generator: Item B8.30 - Integrally Welded Attachment

- Not applicable to Nine Mile Point Nuclear Power Station.

Heat Exchanger: Item B8.40 - Integrally Welded Attachment

- Not applicable to Nine Mile Point Nuclear Power Station.

2.2.9 Category B-J, Pressure Retaining Welds in Piping

Items: B9.11, B9.12, B9.21, B9.22, B9.31, B9.32, B9.40

Scope of Examination - 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 8: Table IWB-2500-1, Examination Category B-J, Footnote (1)(b)(1) and (2) are not applicable to NMP1, with the exception of the Reactor Recirculation system, due to the unit being docketed prior to June 1978.

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, I&E Bulletin 80-13, SIL 289 and INPO SER 5-85 shall also be used for satisfying the percentage requirements of Inspection Program "B", to the extent practical. See Section 6.0 Augmented Examinations of this Program for details.

All longitudinal pipe welds intersecting any of the selected circumferential welds will also be examined. As an alternate to Table IWB-2500-1, ASME Code Case N-524, "Alternative Examination Requirements for Longitudinal Welds in Class 1 Piping Section XI, Division 1", shall be used as defined below:

(A) When only a surface examination is required, examination of longitudinal piping welds is not required beyond those portions of the welds within the examination boundaries of intersecting circumferential welds.

(B) When both surface and volumetric examinations are required, examination of longitudinal piping welds is not required beyond those portions of the welds within the examination boundaries of intersecting circumferential welds providing the following requirements are met.

(1) Where longitudinal welds are specified and locations are known, examination requirements shall be met for both transverse and parallel flaws at the intersection of the welds and for that length of

longitudinal weld within the circumferential weld examination volume;

(2) Where longitudinal welds are specified but locations are unknown, or the existence of longitudinal welds is uncertain, the examination requirements shall be met for both transverse and parallel flaws within the entire examination volume of intersecting circumferential welds.

- (345) B9.11 Circumferential welds, (86) required
- (288) B9.12 Longitudinal welds, No minimum required
- (164) B9.21 Circumferential welds, (41) required
- (None) B9.22 Longitudinal welds, Not applicable to NMP1
- (9) B9.31 Branch Conn. NPS 4" or Larger, (2) required
- (26) B9.32 Branch Conn. Less than NPS 4", (7) required
- (69) B9.40 Socket welds, (17) required
- (613) Nonexempt Welds subject to examination, (153) required, (154) scheduled
- (288) Long. Welds subject to examination, (46) selected

See Appendix A Tables for selection details.

2.2.10 Category B-K, Integral Attachments to Piping, Pumps & Valves

Items: B10.10, B10.20, B10.30 Piping, Pumps and Valve Integral Attachments

Scope of Examination - Volumetric or Surface examination to include essentially 100% of the length of the attachment weld at each integrally welded attachment subject to examination. Integral attachments selected for examination will consist of attachments whose base material design thickness is equal to 5/8 inch and greater. The examinations include only the welded attachments to piping required to be examined under Examination Category B-J and the welded attachments to pumps and valve integral to such piping.

Examinations will be performed in accordance with the alternate requirements of Code Case N-509, "Alternative Rules for the Selection and Examination of Class 1, 2 and 3 Integrally Welded Attachments Section XI, Division 1". Examination Category and Item Numbers shall be as defined within the Code Case.

Note 9: In addition to those conditions specified in the Code Case, a minimum 10% sample of integrally welded attachments for each item in each Code Class per interval will be examined.

- (6) B10.10 Vessel Integral Attachments, (1) required
- (155) B10.20 Piping Integral Attachments, (16) required
- (0) B10.30 Pump Integral Attachments, Not applicable to NMP1
- (8) B10.40 Valve Integral Attachments, (1) required

Subject to Request for Relief: ISI-5

2.2.11 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% volumetric examination of all welds in one Pump. The pump selected shall be based on pump disassembly for maintenance under B-L-2 or end of inspection interval, whichever comes first.

- Not applicable to Nine Mile Point Nuclear Power Station Unit 1. The five (5) Reactor Recirculation Pumps do not have casing welds.

Item: B12.20 Pump Casing

Scope of Examination - Visual examination of the interior surfaces of one of the five (5) Reactor Recirculation Pumps when disassembled for maintenance. Pump to be identified when pump is disassembled.

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

2.2.12 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 Power Station Unit 1 . 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.

- (6) Valve Body Welds, (1) required

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.

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

Table 2-1
VALVE GROUPINGS

GRP NO.	SYS ID	SIZE	TYPE VALVE	B-G-1	B-G-2	B-M-2	B-M-1	SELECT
V01	01.0	24.0"	GLOBE	N/A	01-01-VB 01-02-VB 01-03-VB 01-04-VB	01-01-VBY 01-02-VBY 01-03-VBY 01-04-VBY	N/A	1 Valve among a group of valves
V02	01.0	6.0"	GATE	N/A	01-07-VB 01-08-VB 01-09-VB 01-10-VB 01-11-VB 01-12-VB	01-07-VBY 01-08-VBY 01-09-VBY 01-10-VBY 01-11-VBY 01-12-VBY	N/A	1 Valve among a group of valves
VO3	01.0	6.0"	Relief	N/A	01-102-A-SVB 01-102-B-SVB 01-102-C-SVB 01-102-D-SVB 01-102-E-SVB 01-102-F-SVB	01-102-A-SVBY 01-102-B-SVBY 01-102-C-SVBY 01-102-D-SVBY 01-102-E-SVBY 01-102-F-SVBY	01-102-A-WD-001 01-102-B-WD-001 01-102-C-WD-001 01-102-D-WD-001 01-102-E-WD-001 01-102-F-WD-001	1 Valve among a group of valves
V04	31.0	18.0"	Check	31-01R-VB 31-02R-VB	N/A	31-01R-VBY 31-02R-VBY	N/A	1 Valve among a group of valves
V05	31.0	18.0"	Gate	N/A	31-07-VB 31-08-VB	31-07-VBY 31-08-VBY	N/A	1 Valve among a group of valves
V06	32.0	28.0"	Gate	N/A	32-380-VB 32-381-VB 32-382-VB 32-383-VB 32-384-VB 32-375-VB 32-376-VB 32-377-VB 32-378-VB 32-379-VB	32-380-VBY 32-381-VBY 32-382-VBY 32-383-VBY 32-384-VBY 32-375-VBY 32-376-VBY 32-377-VBY 32-378-VBY 32-379-VBY	N/A	1 Valve among a group of valves
V07	33.0	6.0"	Gate	N/A	33-01R-VB 33-02R-VB	33-01R-VBY 33-02R-VBY	N/A	1 Valve among a group of valves
V08	38.0	14.0"	Gate	N/A	38-01-VB 38-02-VB 38-13-VB	38-01-VBY 38-02-VBY 38-13-VBY	N/A	1 Valve among a group of valves

Table 2-1
VALVE GROUPINGS

GRP NO.	SYS ID	SIZE	TYPE VALVE	B-G-1	B-G-2	B-M-2	B-M-1	SELECT
V09	39.0	10.0"	Globe	N/A	39-05-VB 39-06-VB	39-05-VBY 39-06-VBY	N/A	1 Valve among a group of valves
V10	38.0	14.0"	Check	38-12-VB	N/A	38-12-VBY	N/A	1 Valve among a group of valves
V11	40.0	12.0"	Check	40-03-VB 40-13-VB	N/A	40-03-VBY 40-13-VBY	N/A	1 Valve among a group of valves
V12	39.0	10.0"	Check	N/A	39-03-VB 39-04-VB	39-03-VBY 39-04-VBY	N/A	1 Valve among a group of valves
V13	33.0	6.0"	Check	N/A	33-03-VB 33-04-VB	33-03-VBY 33-04-VBY	N/A	1 Valve among a group of valves
V14	40.0	12.0"	Gate	N/A	40-01-VB 40-02-VB 40-09-VB 40-10-VB 40-11-VB 40-12-VB	40-01-VBY 40-02-VBY 40-09-VBY 40-10-VBY 40-11-VBY 40-12-VBY	N/A	1 Valve among a group of valves
V15	39.0	10.0"	Gate	N/A	39-01R-VB 39-02R-VB	39-01R-VBY 39-02R-VBY	N/A	1 Valve among a group of valves
V16	40.0	6.0"	Gate	N/A	40-05-VB 40-06-VB	40-05-VBY 40-06-VBY	N/A	1 Valve among a group of valves
V17	00.0	6.0"	Safety Relief	N/A	CH-576-12A-B CH-576-12B-B CH-576-12C-B CH-576-12D-B CH-576-12F-B CH-576-12G-B CH-576-12H-B CH-576-12J-B	V-BK-01-119A V-BK-01-119B V-BK-01-119C V-BK-01-119D V-BK-01-119F V-BK-01-119G V-BK-01-119H V-BK-01-119J	N/A	1 Valve among a group of valves

Table 2-1
VALVE GROUPINGS

GRP NO.	SYS ID	SIZE	TYPE VALVE	B-G-1	B-G-2	B-M-2	B-M-1	SELECT
V18	39.0	10.0"	Gate	N/A	39-07R-VB 39-08R-VB 39-09R-VB 39-10R-VB	39-07R-VBY 39-08R-VBY 39-09R-VBY 39-10R-VBY	N/A	1 Valve among a group of valves

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

Note 10: Augmented IVVI examinations are addressed in Section 6 of this Program.

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), once each inspection period.

- (3) 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 (once per interval).

- (5) Interior Attachments, (5) 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 (once per interval).

- (N/A) Interior Attachments, Not applicable to NMP1

Item: B13.40 Core Support Structure

Scope of Examination - Visual VT-3 examination of accessible surfaces of core support structures (once per interval).

- (49) Accessible surfaces, (49) required

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

Reactor Vessel (PWR)

- Not applicable to Nine Mile Point Nuclear Power Station Unit 1.

Note 11: Augmented examination requirements are addressed in Section 6 of this Program.

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

Item: B14.10 Welds in CRD Housings

Scope of Examination - Volumetric or surface examination of 10% of the peripheral CRD housings.

- (129) CRD Housings, (32) Peripheral CRD Housings, (3) required (10%)

Subject to Request for Relief: ISI-6

2.2.15 Category B-P, All Pressure Retaining Components

Items: B15.10, B15.11, B15.20, B15.21, B15.30, B15.31, B15.50, B15.51, B15.60, B15.61, B15.70, B15.71

Scope of Examination - System pressure tests are conducted on All Class 1 systems and components in accordance with the Nine Mile Point Unit 1 System Pressure Testing Program, Document NMP1-PT-003.

2.2.16 Category B-Q, Steam Generator Tubing

Item: B16.10 - Steam Generator Tubing in Straight Tube Design

- Not applicable to Nine Mile Point Nuclear Power Station Unit 1.

2.2.17 Successive Inspections

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

In accordance with IWB-2420(b), several welds examined during the second inspection interval were 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 inservice inspection plan Tables.

TABLE OF CONTENTS

SECTION 3 - CLASS 2 SYSTEMS

RECORD OF REVISION

REVISION	DATE	AFFECTED	REASON FOR REVISION
0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

3.0 CLASS 2 SYSTEMS/COMPONENTS

The Class 2 System Boundaries were developed based upon the requirements of Regulatory Guide 1.26 and the NMP1 FSAR.

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

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) Vessels, piping, pumps, valves, and other components NPS 4 and smaller in all systems except high pressure safety injection systems of pressurized water reactor plants.

(b) Vessels, piping, pumps, valves, and other components NPS 1 ½ and smaller in high pressure safety injection systems of pressurized water reactor plants.

(c) Component connections NPS 4 and smaller (including nozzles, socket fittings, and other connections) in vessels, piping, pumps, valves, and other components of any size in all systems except high pressure safety injection systems of pressurized water reactor plants.

(d) Component connections NPS 1 ½ and smaller (including nozzles, socket fittings, and other connections) in vessels, piping, pumps, valves, and other components of any size in high pressure safety injection systems of pressurized water reactor plants.

(e) 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.

(f) 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) Vessels, piping, pumps, valves, and other components NPS 4 and smaller.

(b) Component connections NPS 4 and smaller (including nozzles, socket fittings, and other connections) in vessels, piping, pumps, valves, and other components of any size.

(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 and at a temperature equal to or less than 200 degrees F.

(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-1230 - Concrete Encased Components

Piping support members and piping support components that are encased in concrete shall be exempted from the examination requirements of IWC-2500.

3.2 Component/Piping Examination Development

Class 2 components subject to examination are identified in Appendix B. The Class 2 Summary Tables satisfy the requirements of IWA-2420 (a) (1) through (6) respectively.

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

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.

– Not applicable to Nine Mile Point Nuclear Power Station Unit 1

Item C1.20 - Head Circumferential Welds

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

- Not applicable to Nine Mile Point Nuclear Power Station Unit 1

Item C1.30 - Tubesheet to Shell Welds

Scope of examination: 100% of Tubesheet to shell welds (limited to one vessel of multiple vessels). Components applicable to this examination category are the (4) Emergency Condenser Heat Exchanger' s (111, 112, 121, and 122), and (4) Reactor Containment Spray Heat Exchanger's (111, 112, 121 and 122).

- (16) C1.30 Shell Circ. Welds, (4) welds required

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

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

Components applicable to (4) Reactor Containment Spray Heat Exchanger's (111, 112, 121, and 122).

- .(8) C2.11 Nozzle to Shell Welds, (2) required

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

Components applicable to (4) Emergency Condenser Heat Exchanger's (111, 112, 121, and 122).

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.

- (8) 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).

- Not applicable to Nine Mile Point Nuclear Power Station Unit 1

Note 1: The Emergency Condenser Heat Exchanger Nozzles do not have inner radius sections.

Item C2.31 - 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 Power Station.

Item C2.32 Nozzle to Shell (or Head) Welds When Inside of Vessel is Accessible > ½ inch

- Not applicable to Nine Mile Point Nuclear Power Station.

Item C2.33 - Nozzle to Shell (or Head) 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 Power Station.

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

Examinations will be performed in accordance with the alternate requirements of Code Case N-509, "Alternative Rules for the Selection and Examination of Class 1, 2 and 3 Integrally Welded Attachments Section XI, Division 1".Examination Category and Item Numbers shall be as defined in the Code Case.

Note 2: In addition to those conditions specified in the Code Case: A minimum 10% sample of integrally welded attachments for each item in each Code Class per interval will be examined.

Item C3.10 - Pressure Vessels, Integrally 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.

- (8) C3.10 Integral Welded Attachments, (1) required

Item C3.20 - Piping, Integrally 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 of components examined under C-F-1 and C-F-2. Multiple component concept is not applicable.

- (1031) Integrally welded attachments, (103) required

Item C3.30 - Pumps, Integrally Welded Attachments

Scope of Examination - 100% of required areas of each welded attachment (limited to attachments of components examined per C-F and C-G).

- Not applicable to Nine Mile Point Nuclear Power Station.

Item C3.40 - Valves, Integrally Welded Attachments

Scope of Examination - 100% of required areas of each welded attachment (limited to attachments of those components required to be examined under Examination Categories C-F and C-G).

- Not applicable to Nine Mile Point Nuclear Power Station.

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

Items C4.10 Pressure Vessel

Scope of Examination - 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.

- Excluded per IWC-2500-1 size <2.0" Dia.

Items C4.20, C4.30, & C4.40

- Not applicable to Nine Mile Point Nuclear Power Station.

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

Items C5.10, C5.11, C5.12, C5.20, C5.21, C5.22, C5.30, C5.40, C5.41 & C5.42

Welds are selected for examination as defined below. Refer to Appendix B for a summary detail of welds selected for examination.

(1) Requirements for examination of welds in piping ≤ NPS 4 apply to PWR high pressure safety injection systems in accordance with the exemption criteria of IWC-1220.

(2) The welds selected for examination shall include 7.5%, but not less than 28 welds, of all austenitic stainless steel of high alloy welds not exempted by IWC-1220. (The Category Total includes pipe to pipe welds, not exempted by IWC-1220, and are not required to be nondestructively examined per Examination Category C-F-1). These welds, however, were included in the total weld count to which the 7.5% sampling rate was applied). The total welds selected for examination is based on adding non-exempt circumferential welds to excluded circumferential welds and multiplying by 7.5%.

- (72) C5.11 Circ. Welds, (28) required
- (0) C5.41 Circ. Welds, Not applicable to NMP1

The examinations shall be distributed as follows:

(a) The examinations shall be distributed among the Class 2 systems prorated, to the degree practicable, on the number of non-exempt austenitic stainless steel or high alloy welds in each system (i.e., if a system contains 30% of the non-exempt welds, then 30% of

the nondestructive examinations required by Examination Category C-F-1 should be performed on that system);

(b) Within a system, the examinations shall be distributed among terminal ends and structural discontinuities [See Note (3)] below prorated, to the degree practicable, on the number of non-exempt terminal ends and structural discontinuities in that system; and

(c) Within each system, examinations shall be distributed between line sizes prorated to the degree practicable.

(3) Structural discontinuities include pipe weld joints to vessel nozzles, valve bodies, pump casings, pipe fittings (such as elbows, tees, reducers, flanges, etc., conforming to ANSI B16.9), and pipe branch connections and fittings.

(4) The welds selected for examination shall be reexamined during subsequent inspections over the service lifetime of the piping component.

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

Items C5.50, C5.51, C5.52, C5.60, C5.61, C5.62, C5.70, C5.80, C5.81 & C5.82

Welds are selected as defined below. Refer to Appendix B for a complete summary of welds selected for examination.

(1) Requirements for examination of welds in piping ≤ NPS 4 apply to PWR high pressure safety injection systems in accordance with the exemption criteria of IWC-1220.

(2) The welds selected for examination shall include 7.5%, but not less than 28 welds, of all carbon and low alloy steel welds not exempted by IWC-1220. (Some welds not exempted by IWC-1220 are not required to be nondestructively examined per Examination Category C-F-2. These welds, however, shall be included in the total weld count to which the 7.5% sampling rate is applied).

- (721) C5.51, Circ. Welds,
- (16) C5.52, Long. Welds,
- (0) C5.61, Circ. Welds,
- (0) C5.62, Long welds,
- (0) C5.70, Socket Welds,
- (38) C5.81, Circ. Welds,
- (0) C5.82, Long Welds,

Non-Exempt Welds (759), Includes Excluded Welds

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(759) x 7.5% = (56.9) or (57) minimum required, (66) scheduled

The examinations shall be distributed as follows:

(a) The examination shall be distributed among the Class 2 systems prorated, to the degree practicable, on the number of non-exempt carbon and low alloy steel welds in each system (i.e., if a system contains 30% of the non-exempt welds, then 30% of the nondestructive examinations required by Examination Category C-F-2 should be performed on that system);

(b) Within a system, the examination shall be distributed among terminal ends and structural discontinuities [See Note (3) below] prorated, to the degree practicable, on the number of non-exempt terminal ends and structural discontinuities in that system; and

(c) Within each system, examinations shall be distributed between line sizes prorated to the degree practicable.

(3) Structural discontinuities include pipe weld joints to vessel nozzles, valve bodies, pump casings, pipe fittings (such as elbows, tees, reducers, flanges, etc., conforming to ANSI B16.9), and pipe branch connections and fittings.

(4) The welds selected for examination shall be reexamined during subsequent inspection intervals over the service lifetime of the piping component.

(5) Only those welds showing reportable preservice transverse indications need to be examined for transverse reflectors.

Note 3: Refer to Appendix B for a complete summary of welds selected and distributed per each system for examination.

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 (4) Reactor Containment Spray Pumps (111, 112, 121, and 122), and (4) Reactor Core Spray Pumps (111, 112, 121 and 122). 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.

- (80) C6.10 Pump Casing Welds, (20) required
- (0) C6.20 Valve Casing Welds, Not applicable to NMP1.

Subject to Request for Relief ISI-7

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 pressure tests are conducted on all Class 2 systems and components in accordance with the Nine Mile Point Unit 1 System Pressure Testing Program, Document NMP1-PT-003.

3.3 SUCCESSIVE INSPECTIONS

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

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SECTION 4 - CLASS 3 SYSTEMS

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4.0 CLASS 3 SYSTEMS/COMPONENTS

The Class 3 system boundaries subject to examination and testing were developed based upon the requirements of Regulatory Guide 1.26, and the NMP1 FSAR. The Class 3 components and systems subject to examination and testing are described in detail below:

4.1 ASME Code Exemptions Employed

4.1.1 IWD-1220.1

Integral attachments of supports and restraints to components that are 4" nominal pipe size and smaller within the system boundaries of Examination Categories D-A, D-B and D-C of Table IWD-2500-1 shall be exempt from the visual examination VT-3, except for the Auxiliary Feedwater System.

4.1.2 IWD-1220.2

Integral attachments of supports and restraints to components exceeding 4" nominal pipe size may be exempted provided:

(a) The components are located in systems (or portions of systems) whose function is not required in support of reactor residual heat removal, containment heat removal, and emergency core cooling; and

(b) The components operate at a pressure of 275 psig or less and at a temperature of 200° (93°C), or less.

4.2 Component/System Examination Development

Class 3 components subject to examination are identified in Appendix C. The Class 3 Summary Tables satisfy the requirements of IWA-2420 (a) (1) through (6) respectively.

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

Note 1: Examination Categories and Examination Item Numbers for Class 3 Integrally Welded Attachments are defined in accordance with the ASME Code Case N-509 classification criteria.

4.2.1 Category D-A Integral Attachments for Class 3 Vessels, Piping, Pumps

<u>Item D1.10 - Pressure Vessel Integrally Welded Attachments</u>

Scope of Examination - Perform Visual (VT-1) examination of 100% of the weld length of all integrally welded attachment required each interval. Applicable to Emergency Condenser Heat Exchanger's (111, 112, 121 and 122), Reactor Building Closed Loop Cooling Heat Exchanger's (3), Shutdown Cooling Water Heat

Exchanger's (11, 12, and 13), Spent Fuel Pool Cooling Heat Exchanger's (11, and 12).

– D1.10 (28) Integral Attachments, (9) required

<u>Item D1.20 - Piping Integrally Welded Attachments</u>

Scope of Examination - Perform Visual (VT-1) examination of 100% of the weld length each inspection interval

- (459) D1.20 Integral Attachments, (46) required.

<u>Item D1.30 - Pumps Integrally Welded Attachments</u>

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

- (0) D1.30 Integral Attachments, not applicable to NMP1.

<u>Item D1.40 - Valve Integrally Welded Attachments</u>

Scope of Examination - Perform Visual (VT-1) examination of 100% of the weld length on all integrally welded attachments required for the inspection interval.

- (0) D1.40 Integral Attachments, not applicable to NMP1

Note 2: In the case of multiple components within a system of similar design, function and service, the integral attachment of only one of the multiple components shall be examined.

Examinations will be performed in accordance with the alternate requirements of Code Case N-509, "Alternative Rules for the Selection and Examination of Class 1, 2 and 3 Integrally Welded Attachments Section XI, Division 1".

In addition to those conditions specified in the Code Case, a minimum 10% sample of integrally welded attachments for each item in each Code Class per interval will be examined.

Note 3: Integral Attachment to Shock Absorbers and snubbers are included as part of the population for which the 10% sample is taken.

4.2.2 System Pressure Tests - Class 3

The pressure retaining components within the boundary of each system specified for Examination Categories D-A, D-B and D-C are pressure tested and visually examined (VT-2), for leakage in accordance with the Nine Mile Point Nuclear Power Station Unit 1 System Pressure Test Program, document NMP1-PT-003.

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SECTION 5 - COMPONENT SUPPORTS

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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. NMPC will conduct examinations in accordance with alternate examination requirements of Code Case N-491-1, "Alternative Rules for Examination of Class 1, 2, 3 and MC Component Supports of Light-Water Cooled Power Plants, Section XI, Division 1", as noted below:

As an alternate to the Class 1, 2 and 3 Component Support Requirements of Table IWF-2500-1, NMPC will perform the following:

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. The supports subject to examination have been selected in accordance with Code Case N-491-1. (Refer to Appendix D for Detail Tables).

5.1 Supports Exempt From Examination

Exemptions are as stated in IWB-1220, IWC-1220 and IWD-1220, (Sections 2, 3 and 4 of this Program, respectively).

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.

b. NMPC 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

5.2.1 Class 1 Component Supports

Class 1 component supports subject to examination are identified in Appendix D.

5.2.2 Class 2 Component Supports

Class 2 component supports subject to examination are identified in Appendix D.

5.2.3 Class 3 Component Supports

Class 3 component supports subject to examination are identified in Appendix D.

The Class 1, 2 and 3 Summary Tables satisfy the requirements of IWA-2420 (a) (1) through (6) respectively.

5.3 Narrative Discussion

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 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].

Table 5-1
CATEGORY F-A SELECTION PROCESS

Exam Item No.	ASME Code Class	Applicable System	Type of Supports
F1.10	Code Class 1	44.2 Control Rod Drive 39.0 Emergency Condenser 31.0 Feedwater 42.1 Liquid Poison 01,02,03.0 Main Steam 33.0 Reactor Clean Up 40.0 Reactor CoreSpray 32.0 Reactor Recirculation 38.0 Reactor Shutdown Cooling 80.0 Reactor Containment Spray 54.0 Spent Fuel Pool Cooling 72.0 Service Water 70.0 Reactor Building Close Loop Cooling	a. Rod Hangers b. Anchors c. Springs d. Stanchions e. Sway Braces f. Dead Weight g. Snubbers
F1.20	Code Class 2		
F1.30	Code Class 3		
F1.40	Other than piping		

5.3.1 Examination Category F-A Supports

<u>Item F1.10 - Class 1 Piping Supports</u>

Scope of Examination - Visual VT-3 examination of 25% of all non-exempt Class 1 Supports.

- (190) F1.10 Supports, (48) required

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.

<u>Item F1.20 - Class 2 Piping Supports</u>

Scope of Examination - Visual VT-3 examination of 15% of all non-exempt Class 2 Supports.

- (433) F1.20) Supports, (65) required

<u>Item F1.30 - Class 3 Piping Supports</u>

Scope of Examination - Visual VT-3 examination of 10% of all non-exempt Class 3 Supports

- (503) F1.30 Supports, (50) required

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

Scope of Examination - Visual VT-3 examination of 100% of all non-exempt Supports, other than piping supports. This item is applicable to the Emergency Condenser Heat Exchanger's (111, 112, 121, and 122); Emergency Service Water Pump (11 and 12); Reactor Building Closed Loop Cooling Heat Exchanger, Pump and MU Tank; Reactor Containment Spray Heat Exchanger's (111, 112, 121 and 122); Reactor Containment Spray and Raw Water Pumps (111, 112, 121 and 122); Reactor Core Spray Pumps 111,121 and 122) and Reactor Core Spray Topping Pumps (111, 112, 121 and 122); Reactor Recirculation Pumps (11, 12, 13, 14 and 15); Reactor Vessel Supports; Shutdown Cooling Water Heat Exchanger, (11, 12, and 13); Spent Fuel Pool Cooling Filter (11 and 12) ; Spent Fuel Pool Cooling Heat Exchanger and Pumps (11 and 12) and the Spent Fuel Pool Cooling Surge Tank. For multiple components, only one of the multiple components are required to be examined.

- (89) F1.40 Supports, (26) required

Note 1: The recording of Hot or Cold positions will be performed in conjunction with the VT-3 examination .

5.4 Snubber Examination and Performance Testing Program

The following section provides a description of Nine Mile Point Unit 1 Snubber Program for Examination and Performance Testing of Dynamic Restraints (Snubbers).

The Snubber Program is currently defined in plant technical specification, amendment 142, section 4.6.4, and applies to the visual inspection and periodic testing requirements for shock suppressors (snubbers), by assuring the snubbers perform their intended function.

Exclusions from the inspection program are those snubbers that are installed on non safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on the safety-related system.

Scope of Examination - Snubbers are categorized into two types (mechanical and hydraulic), and

classified as accessible or inaccessible. Although snubbers are listed within the ISI Program as part of the total population for which the percentage of Code Case N-491-1 were taken, no snubbers are scheduled and no Code credit is being taken for snubber examinations within this program. Snubbers inspections are performed by the plant maintenance organization in accordance with Plant Technical Specification and are visually (VT-3) inspected in accordance with the following schedule.

Table 5-2
VISUAL INSPECTION FREQUENCY

Number of snubbers found inoperable during inspection or during inspection interval	Next required inspection interval
0	Refueling Period
1	12 months ± 25%
2	6 months ± 25%
3,4	124 days ± 25%
5,6,7	62 days ± 25%
8 or more	31 days ± 25%

The required inspection interval shall not be lengthened more than one step at a time.

Scope of Testing - At least once each refueling cycle, 10% of the total population of each type (mechanical or hydraulic), (accessible or inaccessible) of snubbers in the plant shall be functionally tested. Testing requirements shall be in accordance with Plant Technical Specification requirements.

The Presevice Examination Requirements detailed in OMa-1988 Part 4, Para. 2.2 Thermal Movement Examination have been evaluated and considered preoperational construction requirements not applicable to the NMP1 Snubber Program.

Snubber Program compliance for general and specific requirements along with exemptions from OMa-1988 Part 4 will be defined within applicable plant procedures. Relief from specific requirements within OMa-1988 Part 4, are located in Appendix F, Relief Request ISI-9.

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6.0 AUGMENTED EXAMINATIONS

This section of the Third Inservice Inspection Program provides a summary description of additional requirements identified in regulatory, industry or other documents in addition to the ASME Code. NMPC has reviewed these additional documents for consideration and were determined to be applicable have incorporated them within the Third Inservice Inspection Plan Tables. NMPC plans on utilizing where applicable, Augmented Examinations to satisfy the requirements of ASME Section XI.

6.1 REGULATORY DOCUMENTS

6.1.1 USNRC Regulatory Guide 1.65 – Materials and Inspections for Reactor Vessel Closure Studs.

This regulatory guide defines materials and testing procedures acceptable to the regulatory staff for implementing material and examination criteria for reactor vessel closure head studs for light-water-cooled reactors. Currently the ASME Code, Section XI requires a visual examination to be performed on nuts; a volumetric examination to be performed on studs, in place; and both a volumetric and a surface examination when the stud is removed. At NMP1 the reactor pressure vessel studs are not removed.

Scope of Examination - The sixty-four (64) closure head studs receive an ultrasonic examination of each stud, in-place. As required by the Code, approximately twenty-two (22), (1/3 of the 64 studs) will be examined in-place each period.

Regulatory Position C.4.b will be invoked to examine by either a magnetic particle or liquid penetrant method a representative sample of a minimum of twelve (12) studs and on a reasonable geometric distribution of three (3) studs per each 90-degree quadrant. Additionally, NMP1 will remove 12 studs per interval, essentially 4 per period, with a distribution of 3 per 90-degree quadrant. These studs receive both a volumetric and a surface examination.

- (64) Closure Head Studs, (12) required, (4) per Period

6.1.2 USNRC Regulatory Guide 1.150 – UT of RPV Welds during PSI and ISI

This regulatory guide identifies the acceptable methods of performing ultrasonic examination of Reactor Pressure Vessel welds. NMP1 deviates from the guide by performing examinations of the RPV shell welds in compliance with the spirit of PDI and Section XI, Appendix VIII.

Scope of Examination - Excluded from the Third Inservice Inspection Interval by Relief Request ISI-1.

6.1.3 Generic Letter 88-01, Augmented IGSCC Examinations

The Nine Mile Point Technical Specifications, Section 4.6.F.3, requires NMPC to implement an augmented inspection program for those welds designated as IGSCC susceptible. The requirements for an augmented IGSCC inspection program are mandated 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 2, 1992, the USNRC provided several acceptable alternative staff positions to those originally in the Generic Letter. NMP1 has elected to use two of these alternative staff positions. One of these positions allows sample expansion for Category D welds to be limited to the piping system where the crack was found. NMP1 has elected to examine 50% of Category D welds, by system loop, each cycle and will use this relaxation of sample expansion criteria should cracking be found. The second position is described in Examination Category S below.

NMP1 Background - In 1981 NMP1 identified IGSCC in large bore austenitic stainless steel piping and replaced the piping with low carbon austenitic stainless steel. NMPC considers the replacement material to be IGSCC resistant material, Category A, as defined in GL 88-01.

Examinations performed under the scope of GL 88-01 (and this program plan) are in compliance with 1989 Edition of ASME Section XI. In addition, as required by NMP1 Technical Specification 4.2.6a.2, "the Inservice Inspection Program for piping identified in USNRC Generic Letter 88-01 shall be performed in accordance with the staff positions on schedule, methods, personnel and sample expansion identified in GL 88-01." Where practical examinations performed on IGSCC welds shall also be used to satisfy Section XI Program "B" compliance.

GL 88-01 divides piping welds into 7 categories lettered A through G, of which four are applicable to NMP1. They are categories A, D, F and G. A summary of these categories as well as their applicability to NMP1 is shown in applicable Table identified below.

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

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 in the Third Inservice Inspection Plan and Schedule Tables.

Scope of Examination - IGSCC Category A welds are examined in accordance with a schedule similar to that called out for in Section XI. A 25% sample of welds shall be examined during this inspection interval with at least 12% in 6 years. There are one hundred forty-one (141) Category "A" welds at NMP1, one hundred thirty-one (131) are ASME Class 1 and ten (10) welds are ASME Class 2.

- (141) Category A Welds, (35) required

Table 6-1
IGSCC Category "A" Welds Selected

Component Identification*	Component Description	Period Selected	Component Identification*	Component Description	Period Selected
32-WD-022	P-V	2ND PERIOD	32-WD-125	N1D-SE	3RD PERIOD
32-WD-035	V-P	3RD PERIOD	32-WD-128A	P-V	2ND PERIOD
32-WD-040	E-P	2ND PERIOD	32-WD-167	N1E-SE	1ST PERIOD
32-WD-041	P-N2A	2ND PERIOD	32-WD-171BR	V-R	3RD PERIOD
32-WD-042	N2A-SE	2ND PERIOD	33-WD-015	P-V INACC.	Each Outage
32-WD-061	E-P	3RD PERIOD	33-WD-035	V-P INACC	Each Outage
32-WD-082	N2B SE-N	3RD PERIOD	39-WD-002	N5A-SE	1ST PERIOD
32-WD-110	P-E	3RD PERIOD	39-WD-003	N5A SE-P	1ST PERIOD
32-WD-121	P-N2C SE	1ST PERIOD	39-WD-006	P-P	1ST PERIOD
32-WD-122	N2C SE-N	1ST PERIOD	39-WD-008	P-P	1ST PERIOD
32-WD-164	N2D SE-N	2ND PERIOD	39-WD-009	P-V INACC	Each Outage
32-WD-208	N2E SE-N	3RD PERIOD	39-WD-097	P-V INACC	Each Outage
32-WD-002	N1A-SE	2ND PERIOD	39-WD-211C1	P-E	2ND PERIOD
32-WD-045	N1B-SE	3RD PERIOD	39-WD-037C1*	P-E	2ND PERIOD
32-WD-085	N1C-SE	1ST PERIOD	39-WD-041C1*	P-HX	3RD PERIOD
32-WD-092	P-E	1ST PERIOD	39-WD-100*	R-P	1ST PERIOD
39-WD-121C1*	P-HX	1ST PERIOD	39-WD-117C1*	P-E	3RD PERIOD
32-WD-062	P-V	3RD PERIOD	32-WD-101	P-P	1ST PERIOD
32-WD-119	P-E	1ST PERIOD	32-WD-120	E-P	1ST PERIOD
32-WD-157	V-P	3RD PERIOD			

* Class 2 welds

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 Power Station.

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 Power Station.

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.

Scope of Examination - All welds shall be examined at least every two refueling outages. Approximately 50% of all Category D welds shall be examined each refueling outage. Welds classified as category D are examined in accordance with GL 88-10, Table 1, as modified by alternative staff position #4 for sample expansion, as contained in Supplement 1 to GL 88-01. All 142 Category D welds are ultrasonically examined every other refueling outage, with sample expansion limited to the piping system loop where cracking was found.

- (142) Category D Welds, (284) required

Table 6-2
IGSCC Category "D" Selected Welds

Component Identification	Component Description	Component Identification	Component Description
33-WD-004	P-P	40-WD-38A	N6A SE-SE
33-WD-046	P-P	40-WD-039	N6A N-SE
33-WD-049	P-E	40-WD-041	V-P
37-WD-003	F-R	40-WD-043	BC
38-WD-001	V-P	40-WD-043A	P-N
38-WD-002	P-E	40-WD-044	P-E
38-WD-003	E-E	40-WD-045	E-P
38-WD-004	E-P	40-WD-047	P-V
38-WD-005	P-E	40-WD-048	P-E
38-WD-006	E-P	40-WD-049	E-V
38-WD-089	P-E	40-WD-051	P-E

Table 6-2
IGSCC Category "D" Selected Welds

Component Identification	Component Description	Component Identification	Component Description
38-WD-090	E-P	40-WD-052	E-P
38-WD-091	P-P	40-WD-053	P-E
38-WD-092	P-P	40-WD-054	E-P
38-WD-093	P-E	40-WD-055	P-E
38-WD-094	E-V	40-WD-056	E-P
39-WD-195	P-E	40-WD-058	P-T
39-WD-196	E-P	40-WD-059	T-V
39-WD-197	P-E	40-WD-060	V-P
39-WD-198	E-P	40-WD-061	P-E
39-WD-199	P-E	40-WD-062	E-P
39-WD-200	E-P	40-WD-063	P-E
39-WD-201	P-E	40-WD-064	E-P
39-WD-202	E-P	40-WD-065	P-E
39-WD-203R	P-E	40-WD-066	E-P
39-WD-204A	P-P	40-WD-067	P-T
39-WD-204R	E-P	40-WD-068	T-P
39-WD-226B	P-P	40-WD-069	P-V
39-WD-227	P-E	40-WD-070	V-P
39-WD-228	P-E	40-WD-072	E-P
39-WD-229	P-E	40-WD-073	P-T
39-WD-230	E-P	40-WD-074	T-P
39-WD-231	P-P	40-WD-075	P-P
39-WD-232	P-E	40-WD-076	P-R
39-WD-233	E-P	40-WD-077	R-P
39-WD-233A	P-E	40-WD-079	N6B SE-E

Table 6-2
IGSCC Category "D" Selected Welds

Component Identification	Component Description	Component Identification	Component Description
39-WD-234A	P-E	40-WD-079A	N6B SE-SE
39-WD-235R	E-P	40-WD-080	N6B N-SE
39-WD-090	N5B-SE	39-WD-014	P-P
40-WD-001	V-P	39-WD-016	P-P
40-WD-003	BC	39-WD-017	P-P
40-WD-004	P-E	39-WD-020	P-P
40-WD-005	E-P	39-WD-021	P-P
40-WD-006	P-P	39-WD-022	T-P
40-WD-007	P-V	39-WD-024	T-P
40-WD-008	P-E	39-WD-025	E-P
40-WD-009	E-V	39-WD-026	P-P
40-WD-011	P-E	39-WD-027	P-P
40-WD-012	E-P	39-WD-030	E-P
40-WD-013	P-P	39-WD-034	P-P
40-WD-014	P-P	39-WD-035	P-P
40-WD-015	P-E	39-WD-038	E-P
40-WD-016	E-P	39-WD-102	P-P
40-WD-017	P-E	39-WD-104	P-P
40-WD-018	E-P	39-WD-105	P-P
40-WD-020	P-T	39-WD-108	P-P
40-WD-021	T-P	39-WD-109	P-T
40-WD-022	P-E	39-WD-110	T-P
40-WD-023	E-P	39-WD-112	T-E
40-WD-024	P-V	39-WD-113	E-P
40-WD-025	V-E	39-WD-114	P-P

[illegible]

Table 6-2 IGSCC Category "D" Selected Welds			
Component Identification	Component Description	Component Identification	Component Description
40-WD-026	E-P	39-WD-115	P-E
40-WD-027	P-T	39-WD-118	E-P
40-WD-028	T-V	39-WD-122	P-E
40-WD-029	V-P	39-WD-123	P-P
40-WD-030	P-T	39-WD-124	P-E
40-WD-031	T-P	39-WD-125	E-P
40-WD-032	P-E	39-WD-128	E-P
40-WD-033	E-E	39-WD-129	P-P
40-WD-034	P-E	40-WD-036	R-P
40-WD-035	E-R	40-WD-038	N6A SE-E

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.

Scope of Examination - should be inspected once every two refueling outages after repair. Approximately 50% shall be inspected during the first refueling outage and subsequent outages.

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

TABLE 6-3 IGSCC CATEGORY "E" SELECTED WELDS		
COMPONENT IDENTIFICATION	COMPONENT DESCRIPTION	REMARKS
33-FW-22	PIPE TO SS NOZZLE	Outside CIV, 10% each refueling, weld overlay, once every 2 RFO's

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 - inspected each refueling outages.

- (5) Category F welds, (5) required each refueling outage.

Table 6 - 4 IGSCC Category "F" Selected Welds		
Weld No	**Component Identification**	**Re-examination Frequency**
32-WD-046	Nozzle N1B Safe End-Elbow	Examine each refueling outage
32-WD-050	Valve 32-376-Pipe	Per IWB-2420(b) each period
32-WD-086	Nozzle N1C Safe End-Elbow	Examine each refueling outage
32-WD-126	Nozzle N1D Safe End-Elbow	Examine each refueling outage
32-WD-168	Nozzle N1E Safe End-Elbow	Examine each refueling outage

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 (excluding RWCU see GL 88-01 Supplement #1) are examined in accordance with GL 88-01. Twenty-seven (27) RWCU piping welds are included in this category, two (2) of which are inside penetrations, one (1) examined every 2 refueling outages and twenty-four (24) are part of the Level 2 expanded sample . An additional twelve (12) welds, seven (7) of which are inside penetrations and five (5) can not be examined due to configuration, receive a visual examination for evidence of leakage at each refueling outage.

- (39) Category G welds, (15) required

Table 6 - 5 IGSCC Category "G" Selected Welds					
Component Identification	**Component Description**	**Examination Requirements**	**Component Identification**	**Component Description**	**Examination Requirements**
33-WD-014	P-P	Inacc. VT-2 each outage	38-WD-087	V-P	Inacc. VT-2 each outage
33-WD-036	P-E	Inacc. VT-2 each outage	38-WD-088	P-P	Inacc. VT-2 each outage
33-WD-22R	P-N	2ND and 3RD Period	39-WD-194	V-P	VT-2 each outage
38-FW-007	P-P	Inacc. VT-2 each outage	39-WD-194A	P-P	Inacc. VT-2 each outage

Table 6-5 IGSCC Category "G" Selected Welds					
Component Identification	Component Description	Examination Requirements	Component Identification	Component Description	Examination Requirements
38-FW-008	P-V	Inacc. VT-2 each outage	39-WD-226	V-P	VT-2 each outage
39-WD-226A	P-P	Inacc. VT-2 each outage	39-09R-WD-001	V-EW	VT-2 each outage
39-10R-WD-001	V-E	VT-2 each outage	40-WD-010A	V-P	Inacc. VT-2 each outage
40-WD-050A	V-P	VT-2 each outage			

IGSCC Category S Weldments - outboard of CI's

Category S weldments are those welds that are located on the Reactor Water Clean Up system outboard of the Containment Isolation Valve.

Scope of Examination - The Reactor Water Cleanup System outside of the containment isolation valves has very high levels of radiation. Therefore until actions associated with GL 89-10 on motor operated valves are completed by licensees, (ref. file code M96-0007 and M96-0016) the USNRC staff has determined that the inspection of the subject piping on a sampling basis of at least 10% of the weld population may be performed each refueling outage. The population of RWCU piping that lies outboard of containment isolation valves is 32. Based on the 10% sample requirement, NMP1 will examine three (3), (10% of 32) welds each outage.

- (6) IGSCC Category S welds, (3) required each refueling outage.

Table 6-6 IGSCC Category "S" Selected Welds		
Weld Number	Component Description	Examination Frequency
33-FW-35	Elbow-Nozzle	Each Refueling Outage
33-FW-36	Nozzle-Elbow	Each Refueling Outage
33-FW-37	Elbow-Nozzle	Each Refueling Outage

Inspection Schedule - The extent and frequency of inspection for various weldment categories are detailed in Table 6-6 below.

TABLE 6-7
IGSCC EXAMINATION REQUIREMENTS

IGSCC CATEGORY	EXAMINATION REQUIREMENTS	EXTENT OF EXAMINATION	REMARKS
A	25%	Every 10 Year Interval	At least 12% in 6 years
B	50%	Every 10 Year Interval	At least 25% in 6 years
C	All	Within Two Refueling Cycles after the Post-SI Inspection, and All Every 10 Years thereafter	At least 50% in 6 years
D	All	Every Two Refueling Outage	50% each refueling outage
E	All	Every Two Refueling Outages	50% each refueling outage
F	All	Every Refueling Outage	
G	All	Next refueling Outage	All due to inaccessibility and high radiation
S	3	Each refueling Outage	RWCU outboard of CIV's

Sample Expansion - If one or more cracked welds in IGSCC Categories A, B, or C, are found by a sample inspection during the Third Ten-Year Interval, an additional sample of welds should be inspected. Specific expansion requirements for IGSCC welds are defined in Section 8.0.

6.1.4 Generic Letter 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in BWRs" and BWRVIP-07, "EPRI Report TR-105747 Guidelines for Reinspection of Core Shrouds.

In September 1994, the USNRC issued GL 94-03, which required that all BWR licensees inspect their core shroud. In response to GL 94-03 NMP1 elected to pre-emptively repair the core shroud in lieu of inspection. This repair installed stabilizer assemblies that replaced the load carrying capability of the shroud circumferential welds H1 through H7. By letter dated March 31, 1995, the USNRC requested NMP1 to submit reinspection plans for the core shroud and its repair assemblies. Reinspection plans were submitted in December 1998 which were consistent with the guidelines provided in BWRVIP-07, EPRI Report TR-105747, "Guidelines for Reinspection of BWR Core Shrouds.

In a letter dated March 24, 1999, the USNRC transmitted an SER which accepted the NMP1 inspection plans submitted in the December 30, 1998 NMPC letter. These plans were accepted for RFO-15 only. Shroud vertical welds were inspected during RFO-14 and RFO-15. During RFO-15 shroud vertical welds V9 and V10 were repaired. Future inspections of the core shroud and its repair assemblies will be performed in accordance with the inspection guidelines documented in BWRVIP-07 and BWRVIP-63, EPRI Report TR-

113170, "Shroud Vertical Weld Inspection and Evaluation Guidelines".

Scope of Examination - As stated in the USNRC SER, NMPC commitment was to submit the scope of the examinations for RFO-16 to the USNRC, three (3) months prior to the start of the outage.

6.1.5 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.

In NMPC letter NMP1L 1391, dated December 10, 1998, relief was requested pursuant to GL 98-05. Niagara Mohawk Power Corporation (NMPC) requested relief from the inservice inspection requirements of 10CFR50.55 (g) for volumetric examination of circumferential reactor pressure vessel (RPV) welds (ASME Code Section XI, Table IWB-2500-1, Category B-A, Item 1.11, Circumferential welds). This relief request also includes an alternative to the required inspections for RPV shell welds specified in 10CFR50.55a(g)(6)(ii)(A)(2).

Additionally, NMPC requested approval of an alternative to the examination requirements specified in 10CFR50.55a(g) for volumetric examination of longitudinal RPV shell welds and the shell-to-flange weld (ASME Code Section XI, Table IWB-2500-1, Category B-A, Item 1.12, and Item 1.30). NMPC proposes to perform an automated inspection of certain RPV welds using personnel and procedures qualified to the Performance Demonstration Initiative, (PDI). The use of these inspection procedures is a alternative to 10CFR50.55a(b)(2).

NMPC has incorporated the information in BWRVIP-05 into these alternative requirements and addressed the USNRC positions in the USNRC's July 28, 1998 safety evaluation report. See NMPC letter NMP1L 1391 for specific details.

Scope of Examination - NMP1 is received a final Safety Evaluation Report from the USNRC. See Examination Category B-A, Section 2 of this program plan for additional information.

6.1.6 NUREG 0619 – BWR Feedwater and Control Rod Drive Return Line (CRDRL) Nozzle Cracking, Generic Letter 81-11 and GE NE-523-A71-0594

USNRC Generic Letter 81-11 forwarded NUREG 0619 and corrected a footnote in the guide. This regulatory guide describes the technical issues associated with the discovery of cracking in feedwater nozzles and control rod drive return line nozzles. The NUREG also describes technical studies and analysis performed by the General Electric Company and the USNRC staff, the staff's technical positions based on these studies, and the staff's requirements for licensee implementation of the technical positions.

NMP1 initial response, dated December 29, 1980, committed to a program of periodic ultrasonic examinations every other refueling outage, visual inspections of the Feedwater spargers every fourth refueling outage, and liquid penetrant examinations every sixth refueling outage or every 90 startup/shutdown cycles, which ever occurs first. Subsequent responses amended the examination methods and included the use of the General Electric Nuclear Energy (GE-NE) GERIS 2000 automated System (UT) in place of performing dye penetrant examinations. The USNRC, in their letter dated February 5, 1999, accepted the examination program submitted in the NMPC latest submittal, dated September 4, 1998. This submittal identifies the NMP1 commitments for the third inservice inspection interval, and summarized as follows:

The USNRC, in a letter dated June 5, 1998, forwarded the safety evaluation that accepted, with modifications, the Boiling Water Reactor Owners Group (BWROG) report GE-NE-523-A71-0594, "Alternate BWR Feedwater Nozzle Inspection Requirements." Subsequently, in the September 4, 1998 NMPC letter, NMPC revised its commitment for NMP1's feedwater (FW) and control rod drive return line (CRDRL) nozzle inspections. The revised commitment for the FW nozzle inspections would be in accordance with the BWROG report GE-NE-523-A71-0594, dated October 1, 1995, subject to the modifications in the related USNRC safety evaluation report dated June 5, 1998.

Control Rod Drive Nozzles

Also in the September 4, 1998 letter NMPC revised its commitment for CRDRL nozzle inspections by replacing periodic liquid penetrant (PT) with less frequent ultrasonic testing (UT). The examination techniques will be in accordance with the requirements of ASME Code using the GE GERIS-2000 system to perform contact pulse-echo UT examinations. The GERIS-2000 system inspection is performed with sensitivity for detecting flaws that is more sensitive than ASME Code requirements. These revised inspections were accepted by the USNRC in the February 5,1999 letter.

Feedwater Nozzles

The following is the list of modifications in the USNRC safety evaluation report, Section 5.0, which modify the requirements in the BWROG report:

1. The UT techniques should have the ability to reliably detect axially oriented flaws from a depth equal to 0.25 inches for each of the Zones 1 through 3 and axially and radially oriented flaws in the area of the nozzle-to-safe end welds located in Zone 5 (Figure 1). The nozzle-to-safe end butt weld in Zone 5 is required to be inspected according to paragraph IWB 2500-1 of the ASME Code.

2. The PT may be eliminated from FW nozzle examinations, provided that the UT techniques satisfy the requirements of the 1986 or later approved editions of ASME Code or the objectives of Appendix VIII. UT techniques that do not satisfy the 1986 or later approved editions of ASME Code or the objectives of Appendix VIII shall follow the PT frequency shown in Table 1.

3. The automated UT (gated peak threshold recording) multiplication factors shall be those shown for manual UT in Table 2, Method 1. Automated UT (gated peak threshold recording) techniques qualified according to the objectives of Appendix VIII may use multiplication factors in Table 2, Methods 2 or 3.

4. The automated UT (no threshold recording) multiplication factors in Table 2, Method 3 are adequate, provided that the UT techniques are qualified according to the objectives of Appendix VIII.

5. The inspection of Zone 3 shall be at the same frequency as Zones 1 and 2, except that licensees using triple sleeve with double piston ring design sparger may follow the proposed inspection frequency for Zone 3, but not less than one inspection every ASME Code interval.

The fracture mechanics analysis shall be recalculated using the more recent fatigue curves in the ASME Code that address environmental effects. The examination requirements and frequency for the third inspection interval will be determined based on the results of this recalculation.

Table 6 - 8 Routine Inspection Intervals Refueling Cycles			
Configuration	UT	Visual Inspection of Sparger	Routine PT
Nine Mile Point has clad removed, significantly modified spargers have been installed)	Calculated in table 2	4	May be eliminated, Ultrasonic examinations are performed in accordance with PDI and the intent of Appendix VIII of the Code.

Table 6 - 9 Feedwater Nozzles/Sparger Inspection Recommendations (1)				
Thermal Sleeve/Sparger Design Configuration	UT Inspection Interval Factor (2) for Zones 1 and 2			Visual Inspection of Sparger (4)
	Method 1 (3)	Method 2 (3)	Methods 3 and 4	
Oyster Creek and Nine Mile Point 1 (unclad nozzle)	0.10	0.17	0.33	4

Notes: (1) The inspection interval is to begin at the time when a qualified inspection plan that meets the requirement of this report is established and implemented. The need for routine PT exams is eliminated.

(2) For each inspection configuration, the maximum inspection interval is defined by a fraction of the time until a 0.25 inch or greater depth crack reaches the appropriate allowable value, as obtained from a plant-specific fracture mechanics analysis following the recommendations of Section 5.6 of this report. For example (when Method 3 is used)):
Sparger Design = Triple Sleeve
Fracture Mechanics Result = 0.25 inch crack grows to allowable depth in 30 years
Required UT Inspection Interval = allowable time x Factor
= 30 x 0.33 = 10 years
For Zones 1 and 2, in no case shall the maximum allowable time between inspections exceed 10 years. For Zone 3 the inspection intervals can be twice the value recommended for Zones 1 and 2. The inspection frequency is not required to be more often than every second cycle regardless of Interval factor.

(3) The UT methods are defined as follows:
Method 1 = Manual
Method 2 = Automated, Threshold Recording
Method 3 = Automated, Full RF Recording (No Threshold)
Method 4 = Phased Array (No threshold)

(4) Visual inspection of flow holes and welds in sparger arms and sparger tees. These requirements are the same as those specified in NUREG-0619.

Scope of Examination - The zones to be examined by the ultrasonic techniques shall be the regions as shown for identification purposes in Figure 6-9.

Table 6 - 10
AUGMENTED FEEDWATER NOZZLE EXAMINATION

Feedwater Nozzle Identification	Zone No	Examination Method	Extent and Frequency
Nozzle N4-A 31-WD-030-IR 31-WD-030	 1 and 2 3	Automated UT Techniques	3^{RD} Periods
Nozzle N4-B 31-WD-021-IR 31-WD-021	 1 and 2 3	Automated UT Techniques	3^{RD} Periods
Nozzle N4-C 31-WD-051-IR 31-WD-051	 1 and 2 3	Automated UT Techniques	3^{RD} Periods
Nozzle N4-D 31-WD-060-IR 31-WD-060	 1 and 2 3	Automated UT Techniques	3^{RD} Periods
RV-05-I Feedwater Sparger Assemblies and Feedwater Nozzles	N/A	Visual VT-3 Examination	Every 4^{TH}. Refueling Outage, commencing at RFO-8, (1981), Scheduled 3^{RD} Period
CRD Nozzle N9 44.1-WD-018-IR	N/A	Automated UT Techniques	3^{RD} Period

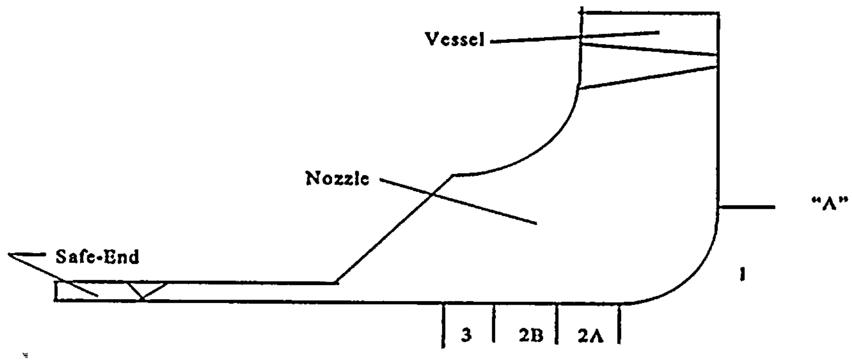

Figure 6-9
FEEDWATER NOZZLE ZONES

6.1.7 NUREG-0803/ Generic Letter 81-34 and 86-01 - BWR Scram System Pipe Break

Generic Letter 81-34 transmitted NUREG-0803 to all BWR licensees.

NUREG-0803, "Generic SER Regarding Integrity of BWR Scram System Piping", addresses the need for improvement in procedures, periodic inservice inspection and surveillance for the scram discharge volume (SDV) system. These guidelines were developed to address the consequences of a postulated leakage crack in the SDV piping and the resulting large leakage (up to 550 gpm) downstream of the system isolation valves.

Generic Letter 86-01, "Safety Concerns associated with Pipe Breaks in the BWR Scram System", addressed the staff's position based on information provided in BWROG and General Electric Company supplied generic information (NEDO-22209, BWROG-8420) and staff generic analysis of the SDV piping system integrity. The staff has concluded that SDV piping satisfies BTP MEB 3-1, position B.2.C (1). A through wall leak need not be postulated. Also BWROG emergency procedure guidelines and visual verification of the SDV integrity provide sufficient measures to verify the detecting and mitigating the consequences of leakage.

Scope of Examinations - Based on the above information NMP1 will perform the examinations and tests required by the 1989 Edition of Section XI for Class 2 systems. No additional augmented examination is required.

6.2 Industry Documents

6.2.1 In-Vessel Visual Examinations (BWRVIP)

In addition to the ASME Code requirements, this section identifies those additional examination activities that NMPC has evaluated and determined to be applicable to the Third Inspection Interval. Augmented examinations may be recommended by regulatory documents, NSSS recommendations, industry experience, and/or good engineering practice.

TABLE 6 - 11
IN-VESSEL AUGMENTED EXAMINATIONS

Component (1) Identification	Exam Method	Inspection Requirements	Extent and Frequency
Top Guide	Visual VT-3	GE RICSIL 071 BWRVIP-26 EPRI TR-1072851 RICSIL 059 SIL 554	Periodically as required (Note 4)
Steam Dryer Assembly	Visual	BWROG 91 GE SIL 474	Periodically inspect to assess component condition; UT inspect as necessary to characterize cracking; (Note 3)

TABLE 6 - 11
IN-VESSEL AUGMENTED EXAMINATIONS

Component (1) Identification	Exam Method	Inspection Requirements	Extent and Frequency
Core Shroud Assembly, Shroud Repair Components and Shroud Supports	Visual VT-3 UT EVT-1	BWRVIP-07 (EPRI TR-105747) BWRVIP-01, BWRVIP-38, BWRVIP-63	Examine Shroud Tie Rod Assemblies per details in NER-1M-053; Shroud Vertical welds, shroud support welds H8 & H9, and shroud Component Welds (Note 4)
Core Spray and Core Spray Sparger	Visual	NUREG/CR 4523 BWRVIP-18 EPRI TR-106740	Examine CS Piping and CS Sparger Assembly and piping component condition (Note 4),
Moisture Separator/Shroud Heads Assembly	Visual	BWROG 91 GE SIL 433 Good Engineering Practice	Periodically inspect to assess component condition (Note 3)
Shroud Head Bolts	Visual UT	Sil-433	Periodically as required (Note 3)
Feedwater Sparger Nozzle	Visual	Good Engineering Practice	Visually inspect each fourth refueling outage, Examine the nozzles on the replacement FW Sparger on a periodic basis (Note 3)
IRM/SRM Dry Tubes (2)	Visual	BWRVIP-47 SIL 409 Rev. 1 RICSIL 073	Examine on a periodic basis to assess the conditions of the tubes (Note 3,4)
Control Rod Drive Stub Tube/Housing Penetrations	Visual	BWRVIP-47 Good Engineering Practice	When Accessible (Note 3,4)
In-Core Instrumentation/Housing Penetrations	Visual	Good Engineering Practice	When Accessible (Note 3)
Core Delta Pressure/Standby Liquid Poison Control	Visual	BWRVIP-27 Good Engineering Practice	When Accessible (Note3,4)
Core Plate	Visual	GE RICSIL 071 BWRVIP-25 EPRI TR-107284 SIL 588	Periodically as required (Note 4)

TABLE 6 - 11 IN-VESSEL AUGMENTED EXAMINATIONS			
Component (1) Identification	Exam Method	Inspection Requirements	Extent and Frequency
Control Rod Drive Return Line Nozzle	Visual	NUREG 0619	Inspect each outage until final PT is performed. NMPC Letter

Notes: (1) NMPC has not determined whether reexamination of all these areas, (as defined above) is warranted during the Third Inservice Inspection Interval.
(2) IRM/SRM Dry Tubes have all been replaced in 1986 with three (3) different type designs and two manufacturers with Type 347 material.
(3) These inspections are not commitments and are subject to change as necessary to support good engineering practices.
(4) These inspections will be based on approved BWRVIP guidelines for the identified components.

6.2.2 SIL 571-Instrument Nozzle Safe End Cracking and BWRVIPs –06 (TR-1507), VIP-27 (TR-107286), VIP-49 (TR-108695)

SIL 571, Instrument Nozzle Safe End Cracking, identified a leak in a reactor vessel water level instrument nozzle safe end at a GE BWR/4 plant and documents the results of investigations and examinations that were performed. Subsequently the issue has received substantial industry exposure including investigations and reviews as part of the BWR Vessel and Internals Project (BWRVIP) work. NMPC has evaluated this concern in Deviation/Event Report # 1-93-2209. The following examinations were established for the instrument nozzles and the Standby Liquid Control (SLC) nozzle.

Perform a VT-2 examination after vessel flood up to assess for the presence of leakage at the start of each refuel outage and, Follow up with a VT-2 examination at the end of each refuel outage during the system pressure test.

The NMP1 design includes eleven (11) nozzles with stainless steel safe ends, ten (10) instrument nozzles and one (1) standby liquid control nozzle. These nozzles are identified below.

Table 6 - 12 Instrument Nozzles - Stainless Steel Safe Ends				
Nozzle #	Safe End Material	Elevation	Azimuth degrees	Description
N12	SA336-F8	266' 11"	98	Standby Liquid Control
N13A	SA336-F8	306' 10"	57	Instr. Level Protection
N13B	SA336-F8	295' 11"	62	Instr. Level Protection
N14A	SA336-F8	305' 10"	84	Instr. Level Control Range
N14B	SA336-F8	295' 11"	82	Instr. Level Control Range
N15A	SA336-F8	305' 10"	236	Instr. Level Control Range
N15B	SA336-F8	295' 11"	236	Instr. Level Control Range
N16A	SA336-F8	306' 10"	244	Instr. Level Protection
N16B	SA336-F8	295' 11"	244	Instr. Level Protection
N17A	SA336-F8	311' 02"	250	Instr. Wide Range Level

Table 6 - 12
Instrument Nozzles - Stainless Steel Safe Ends

Nozzle #	Safe End Material	Elevation	Azimuth degrees	Description
N17B	SA336-F8	295' 11"	252	Instr. Wide Range Level

All of the reactor instrument nozzle safe ends and the standby liquid control safe end are fabricated of stainless steel material SA-336 F8

Three (3) safe end to nozzle welds are scheduled for examination as follows:

Table 6 - 13
Instrument Nozzles - Code Examinations

Nozzle	ISO	Exam ID	Code Category/Item	Exam Method	Exam Schedule
N12	14	42.1-WD-034	B-F/B5.20	Surface	1st period
N13A	8	36-WD-003	B-F/B5.20	Surface	3rd period
N16A	8C	36-WD-924	B-F/B5.20	Surface	3rd period

Only the code required exams are scheduled for the above welds. The examination is performed using liquid penetrant and includes the adjacent ½" portion of the base material on each side of the weldment. Should the examination reveal indications, Engineering shall determine the necessity for expansion.

Additionally the remaining nozzles receive a VT-2 examination each refuel outage during system pressure test.

Standby Liquid Control Nozzle

Due to the importance of the SLC nozzle the BWRVIP-027 Guidelines recommend a volumetric examination be performed on the nozzle to safe end weld and the safe end extension. NMPC has evaluated this recommendation in Deviation/Event Report # 1-97-0378. The following supplemental examination has been incorporated in this plan.

Table 6 - 14
Instrument Nozzles - Standby Liquid Control

Nozzle	ISO	Exam ID	Code Category/Item	Examination Method	Examination Schedule
N12	14	42.1-WD-034	B-F/B5.20	Volumetric	3rd Period

The volumetric examination includes the weld between the nozzle (Alloy 600 material) and the safe end (Stainless Steel) and the accessible length of the safe end base metal. These examinations will be performed using ASME Section XI methodology and criteria to the extent practical. If indications are located, flaw sizing shall be performed in accordance with Section XI requirements and reported to Engineering. Since the RPV instrument nozzles are fabricated in the same manner, Engineering will also determine the necessity to expand the scope to the instrument nozzles.

6.2.3 SIL 409 and RICSIL 073, Incore Dry Tube Cracks

SIL 409 and SIL 409, Rev. 1, Incore Dry Tube Cracks found in incore dry tubes at three operating BWR's and to alert BWR owners to the need for inspections. Recommended action was to inspect the dry tubs during the next refueling outage. NMPC performed visual examinations on 12 dry tubes in 1984 using an underwater TV camera. The dry tubes were cracked but still serviceable. The dry tubes were replaced in 1986 (RFO –10). The new dry tubes are three different type design and two manufacturers, Kraftwork Union (KWU) and General Electric (GE). There are two new style KWU design, eight new style GE design, and two old style GE design. The new KWU design is made of a higher strength material, (347 stainless steel). The new style GE design has a higher purity, better quality stainless in the area where the cracking had occurred. Both designs are crevice free.

In 1988, both of the old style GE and one each of the new designs were examined. No indications were found. These examinations were repeated during RFO-06 and no indications were found. RICSIL 073, dated May 12, 1995, presented additional information on recent cracking in incore dry tubes.

Scope of Examinations - Conduct visual examination of two old style GE design, every other even numbered outage.

Table 6-15
IRM Incore Dry Tube Assembly

Component Identification	Component Description	Exam Method	Outage Selection	
SIL409-IDTC1245	IRM Incore Dry Tube Assembly	VT	RFO-16	RFO-18
SIL409-IDTC3645	IRM Incore Dry Tube Assembly	VT	RFO-16	RFO-18

6.2.4 SIL 419, CRD Hydraulic Control Unit Isolation Valves

In accordance with the recommendation of SIL 419, the CRD 101 and 102 valve wedges are examined with liquid penetrant when their companion CRD is removed for maintenance, to a maximum of five (5) CRD's per refueling.

Scope of Examination - No exams required, all valves replaced and/or upgraded.

6.2.5 SIL 433, Shroud Head Bolt Cracks

SIL 433 and SIL 433, Supplement 1, identified cracking of head bolts in four BWR/4's and one BWR/3. Recommendations were ultrasonic examinations of all BWR/2-5's head bolts the next time the reactor vessel head is removed and the shroud head and separator assembly is removed to the equipment storage pool. Additional information was presented in SIL 433 Supplement 1, dated September 15, 1993 that revised the recommendations. The cause of cracking was confirmed to be crevice corrosion IGSCC and recommended the entire length of the head bolts be examined.

During RFO-10, NMP1 examined all 36 bolts and no indications were identified. These examinations were repeated during RFO-11 and no indications were identified. Examinations will be repeated until an evaluation supports their deletion. See NMPC letter NMP-36220.

Scope of Examination - Examinations are to be identified later.

6.2.6 SIL 455 and RICSIL 072, Recommendation for Additional ISI of Alloy 182 Nozzle Weldments

SIL 455 identified IGSCC type indications in one of ten-recirculation inlet safe- end to nozzle Inconel 182 weldments. One of the axial components had extended about one quarter inch into the alloy steel material and has been repaired by temper bead weld overlay. The SIL recommended BWR owners perform additional ultrasonic examinations, during planned inservice examinations, of safe-end to nozzle weldments if cracks are found in alloy 182. Subsequently Revision 1, and Revision 1 Supplement 1 has been issued. These revisions recommend owners review their design for the for Recirculation inlet and outlet nozzles, high pressure core spray, low pressure core spray and low pressure coolant injection nozzles, Jet pump instrumentation nozzles, and control rod drive hydraulic return nozzles. For those designs where alloy 182 extends back into the nozzle bore, UT examinations should be performed in this extended area. Also GE recommends that a 45-degree and a 60 degree refracted longitudinal wave be used for crack detection and sizing. AT NMP1 34 nozzles utilize designs in which Inconel weld butter extends back into the nozzle bore. See NMPC letter MNP 36220.

Additional information was presented in RICSIL 072, dated January 10, 1995.

Table 6 - 16
SIL-455 Selected Welds

Component Identification	Component Description	Exam Method	When Selected
RV-WD-011	Nozzle N7A - Flange	UT	1ST Period
RV-WD-013	Nozzle N7B - Flange	UT	3RD Period
RV-WD-015	Nozzle N7C - Flange	UT	3Rd Period
RV-WD-017	Nozzle N&D - Flange	UT	3Rd Period
RV-WD-019	Nozzle N7E - Flange	UT	1ST Period
RV-WD-021	Nozzle N7F - Flange	UT	3RD Period
RV-WD-023	Nozzle N7G - Flange	UT	3RD Period
RV-WD-025	Nozzle N7H - Flange	UT	3RD Period
RV-WD-027	Nozzle N7J - Flange	UT	1ST Period
RV-WD-029	Nozzle N7K - Flange	UT	1ST Period
RV-WD-031	Nozzle N7M - Flange	UT	1ST Period
RV-WD-033	Nozzle N7N - Flange	UT	3RD Period
RV-WD-035	Nozzle N7P - Flange	UT	3RD Period

Table 6 - 16
SIL-455 Selected Welds

Component Identification	Component Description	Exam Method	When Selected
RV-WD-037	Nozzle N7R - Flange	UT	3RD Period
RV-WD-039	Nozzle N7S - Flange	UT	3RD Period
RV-WD-041	Nozzle N7T - Flange	UT	1ST Period
RV-WD-043	Nozzle N7U - Flange	UT	1ST Period
32-WD-042	N2A Nozzle - Safe End	UT	2ND Period
32-WD-082	N2B Safe End - Nozzle	UT	3RD Period
32-WD-122	N2C Safe End - Nozzle	UT	1ST Period
32-WD-164	N2D Safe End - Nozzle	UT	2ND Period
32-WD-208	N2E Safe End - Nozzle	UT	3RD Period
32-WD-002	N1A Nozzle - Safe End	UT	2ND Period
32-WD-045	N1B Nozzle - Safe End	UT	3RD Period
32-WD-085	N1C Nozzle - Safe End	UT	1ST Period
32-WD-125	N1D Nozzle - Safe End	UT	3RD Period
32-WD-167	N1E Nozzle - Safe End	UT	1ST Period
36-WD-1074	N7L Closure Head	UT	3RD Period
37-WD-002	N8 Nozzle - Flange	UT	2ND Period
39-WD-002	N5A Nozzle - Safe End	UT	1ST Period
39-WD-090	N5B Nozzle - Safe End	UT	3RD Period
40-WD-039	N6A Nozzle - Safe End	UT	1ST Period
40-WD-080	N6B Nozzle - Safe End	UT	1ST Period
44.1-WD-017	N9 Safe End - Nozzle	UT	1ST Period

6.2.7 SIL 474, Steam Dryer Drain Channel Cracking

Scope of Examination - As recommended by SIL 474, Steam Dryer Drain Channel Cracking, NMP1 will visually examine steam dryer drain channels each period.

Table 6-17 SIL 474 Steam Dryer			
Component Identification	**Component Description**	**Exam Method**	**Frequency**
RV-01-I	Steam Dryer Drain	VT-1	Once every period

6.2.8 SIL 483, CRD Cap Screw Crack Indications

SIL 483, CRD Cap Screw Indications, identify circumferential cracking and corrosion pitting in the shank directly below the cap screw head. SIL-483. Rev.2 recommends visual examination of all removed cap screws for crack indications in the shank –to-head transition region whenever cap screws are removed for routine maintenance.

This SIL resulted from examinations performed by NMP1. An analysis of these examination results was issued by GE in March 17, 1989. This SIL relaxes previous NMP1 commitments.

Scope of Examinations - An LP examination will only be performed on suspect cap screws slated for reuse. No examinations are scheduled pursuant to this plan.

6.2.9 SIL 539, RPV Head Clad Cracking

SIL 539, RPV Head Clad Cracking, identifies cracking in the stainless steel cladding of the RPV top head. The cracking was identified by visual examination that revealed rust streaks on the cladding surface. Visual examinations will be per Code with particular attention given to back clad areas of the flange to dome weld. If indications are found, a confirmatory liquid penetrant examination or enhanced ultrasonic testing is performed. Also see USNRC Information notice No. 90-29.

Scope of Examination - No examinations are planned during this interval.

Table 6-18 RPV Head Cladding			
Component Identification	**Component Description**	**Exam Method**	**Frequency**
RV-16-I	Vessel Cladding	VT-3	No Exams Planned

6.2.10 SIL 554, Top Guide Cracking

SIL 554, Top Guide Cracking, identified a through wall crack approximately 1 and ½ inches long in a top guide of a BWR/2. This SIL recommends owners of BWR/2, 3, 4 and 5 plants, with top guide fluence levels above $1x10^{21}$ neutrons per square centimeter, perform visual inspections of the top guide at grid locations where fuel and blade guides have been removed. Whenever cracking is found, perform an ultrasonic examination of the beam top guide intersection. NMP1 performed the recommended visual examinations in RFO-12 and no cracking was found.

Scope of Examination - Examine per BWRVIP-26 recommendations.

Table 6 - 19 Upper Core Grid			
Component Identification	**Component Description**	**Exam Method**	**Frequency**
RV-13-I	Upper Core Grid	Later	Per BWRVIP-26

6.2.11 SIL 588, Top Guide and Core Plate Cracking

SIL 588, Top Guide and Core Plate Cracking, identified that inspections showed significant cracking in the core shroud, top guide and core plate rims. The items were manufactured from type 347 stainless steel, which is a niobium stabilized austenitic stainless steel. GE considers welded 347 SS to have susceptibility to IGSCC. The SIL recommends a visual examination at the next refueling outage.

NMP1 has documented the evaluation of this SIL in Deviation Report/Event Report DER # 1-95-0436. .

Scope of Examinations - Visual examinations will be performed as part of the Section XI examinations, Category B-N-2, item B13.40. Augmented examinations will be performed per BWRVIP-26.

Table 6 - 20 SIL-588 Upper Core Grid			
Component Identification	**Component Description**	**Exam Method**	**Frequency**
RV-13-I	Upper Core Grid	Later	Per BWRVIP-26

6.2.12 SIL 459, Recirculation Pump Shaft Cracking

SIL 459, supplement 2, was issued to inform GE BWR owners of shaft cracking in recirculation pumps manufactured by Byron Jackson (BJ) and by Bingham. BJ manufactured the recirculation pumps at NMP1. Supplement 2, of the SIL provided additional information form that presented in SIL 459, Rev. 0 and SIL 459, Supplement 1. The combined information is summarized below. There is a SIL 459, Supplement 3; however, it is not applicable to NMP1.

SIL 459 was issued in December 1987 and identified the first instance of thermal fatigue cracking in BWR reactor recirculation pump shafts. The recommended action was to perform NDE on the shafts when the pump is disassembled. For additional information see NMPC letter NMP 31096, QA91-U1-080, NMP 34194 and NMP 45971.

In SIL 459, Supplement 1, there was no change in the recommendation to perform NDE on the pump shafts. For additional information see NMPC letter QA91-U1-281. This letter indicates that 3 of the 5 shafts have been examined and the remaining 2 will be examined.

In SIL 459, Supplement 2, provided additional information about pumps with heat exchangers and a discussion on shaft vibration. There was no change in the recommendation to perform NDE on the pump shafts when disassembled.

Scope of Examinations - NDE examination of the pump shafts when disassembled for maintenance has been included in this inspection interval.

Table 6 - 21
SIL-459 Pump Shafts

Component Identification	Component Description	Exam Method	Frequency
32-187-Shaft	Pump 11 Shaft	VT-1	When disassembled
32-188-Shaft	Pump 12 Shaft	VT-1	When disassembled
32-189-Shaft	Pump 13 Shaft	VT-1	When disassembled
32-190-Shaft	Pump 14-Shaft	VT-1	When disassembled
32-191-Shaft	Pump 15-Shaft	VT-1	When disassembled

6.2.13 IE Bulletin 80-13 SIL 289 and RISIL 073, Cracking in Core Spray Spargers

IE Bulletin 80-13, Cracking in Core Spray Spargers, identified that Oyster Creek and Pilgrim had found cracks in their core spray spargers. Both Oyster Creek and Pilgrim had performed their examinations in accordance with the recommendations in GE SIL 289. Subsequently examinations were performed by NMP1 on four (4) core spray spargers and associated internal piping segment (the section of piping between the inlet nozzle and the vessel shroud) using a remote underwater television camera. Indications identified on Loop A Core Spray Sparger pipe near Spray Nozzle 23A during RFO-13 were evaluated and submitted to the USNRC on April 21,1995. The indications were evaluated by fracture mechanics and the sparger will not be prevented from performing its function. No repairs are necessary. NMP1 will continue to perform examinations at each refueling outage and any propagation of indications will be evaluated.

SIL 289, Rev 1, Supplement 1, Revision 1, issued March 15, 1989 identified additional cracking in the core spray sparger. Subsequently RISIL 074, dated November 1, 1995 was issued with additional information.

Scope of Examination - Examinations will be in accordance with BWRVIP-18.

Table 6 - 22 Core Spray Sparger				
Component Identification	Component Description	Exam Method	Frequency	Comments
RV-06-I	Core Spray Sparger	VT-3	Each Outage	Examine per BWRVIP-18.
RV-07-I	Core Spray Lines	VT-1	Each Outage	Examine Per BWRVIP-18

6.2.14 IE Bulletin 96-03, Potential Plugging of Emergency Core Cooling Suction Strainers By Debris in Boiling Water Reactors

In NMPC letter NMP1L 1151, dated 11/4/98, NMP1 committed to performing an augmented visual examination of the core spray suction strainers in accordance with the recommendations of IE Bulletin 96-03.

Scope of Examination - Perform visual examinations each refueling outage.

Table 6 - 23 IEB 96-03 Suction Strainers			
Component Identification	Component Description	Exam Method	Frequency
80-09	Ctmt. Spray	VT-3	Each outage
80-30	Ctmt. Spray	VT-3	Each outage
80-10	Ctmt. Spray	VT-3	Each outage
80-39	Ctmt. Spray	VT-3	Each outage
81-05	Core Spray	VT-3	Each outage
81-06	Core Spray	VT-3	Each outage
81-24	Core Spray	VT-3	Each outage
81-25	Core Spray	VT-3	Each outage

6.3 Additional Commitments

6.3.1 NCTS Commitment No. 503783-01, Augmented Examinations of CRD Housing

In 1984 NMP1 identified a degraded material condition to Control Rod Drive (CRD) stub tubes. The condition was initially evaluated by the USNRC in June 1984 and that the Roll Repair method used was acceptable. This method limited leakage from the penetrations and assured safe operation of the facility. The US NRC's safety evaluation was supplemented by USNRC Safety Evaluation dated March 25, 1987. Subsequently USNRC correspondence dated August 9,1993 requested that NMP1 develop an augmented inspection program for periodic examination of the critical areas of the CRD housings. Specifically the stub tube upper J welds and the previously rolled repaired regions. The housings that have not been repaired are included in the program.

Scope of Examination - The augmented program includes ultrasonic examination of the upper-J weld and the roll-repaired areas of the CRD housings prior to and after each roll repair. The UT exam includes the upper-J weld plus a minimum of 1" above and below the upper-J weld to account for the heat affected zone (HAZ).
The UT exam of the rolled area of the housing shall include the volume of base material associated with the roll; and to account for the rolled to unrolled transition areas, will extend at least 1" above and below the roll band.

Each refueling outage a minimum of two (2) previously roll-repaired CRD housings will require a UT exam and only if previously roll-repaired CRD housings are made available through normal drive maintenance. The housings will be selected from those that are disassembled for maintenance. Engineering Design Drawing D6340-100-163 shall be updated as required.

In addition bolting will receive a VT-1 on housings that are disassembled. All housings and CRD penetrations will receive a VT-2 exam for evidence of leakage during the system pressure test conducted each refueling outage and the mid-cycle shutdown when drywell is de-inerted.

Table 6 - 24
CRDH Upper - J Weld and Roll Area Listing

Component Identification	Component Description	Exam Method	Frequency
DRV-44-0219 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-0631(NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-1015 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage

Table 6 - 24
CRDH Upper - J Weld and Roll Area Listing

Component Identification	Component Description	Exam Method	Frequency
DRV-44-1027 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-1411 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-1803 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-1819 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-2251 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-2647 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3007 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3047 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3051 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3407 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3415 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage

Table 6 - 24
CRDH Upper - J Weld and Roll Area Listing

Component Identification	Component Description	Exam Method	Frequency
DRV-44-3419 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3431 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3439 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3451 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3811 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3831 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-4227 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-4239 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-4627 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-4639 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-5019 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage

Table 6-24
CRDH Upper-J Weld and Roll Area Listing

Component Identification	Component Description	Exam Method	Frequency
DRV-44-4219 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-5023 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-4231 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-3403 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-0223 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-0235 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
DRV-44-5035 (NC02)	CRDH Upper-J Weld and Roll Area	UT Bolting - VT-1	When disassembled for maintenance (2) DR Housings each Outage
NCTS503783-1 AllSRDH	CRDH Exterior @ Rx Bottom Head	VT-2	All CRD Housings, CRD Pens., Leakage required during each RFO and Mid-cycle shutdown when dry well De-inerted

6.3.2 INPO Recommendation SER 5-85, Thermal Fatigue Cracking at Mixing Points

In accordance with the recommendations of the Institute of Nuclear Power Operations (INPO) Significant Event Report (SER) 5-85 the mixing points of systems that experience fluctuations in temperature which could lead to thermal fatigue cracking should be examined each refueling outage. The Reactor Recirculation System has mixing points for the Emergency Cooling and Shutdown Cooling Systems. An examination of these three areas shall be performed during each refueling outage.

Scope of Examination - The base material of the tee between welds 32-WD-004, 32-WD-004A, and 32-WD-005. The examination shall cover 100% of the base material or 12" from the centerline,

whichever is less.

The base material of the tee between welds 32-WD-170, 32-WD-171, and 32-WD-172. The examination shall cover 100% of the base material or 12" from the centerline, whichever is less.

The base material of the tee between welds 32-WD-203, 32-WD-204, and 32-WD-205. The examination shall cover 100% of the base material or 12" from the centerline, whichever is less.

Table 6-25
Tee Base Material

Component Identification	Tee Location	ISO No.	Refueling Outage			
			1ST Period	2ND Period		3RD Period
			16	17	18	19
32-WD-204-MT	14.0" Discharge 15D	7	Yes	Yes	Yes	Yes
32-WD-004A-MT	12.0" Suction 11S	7	Yes	Yes	Yes	Yes
32-WD-171-MT	28.0" Suction 15S	7	Yes	Yes	Yes	Yes

If flaws deeper than those allowed by ASME Section XI, IWB 3514.3 are found, the weld must be evaluated in accordance with the crack evaluation criteria identified Attachment 2 of USNRC Generic Letter 84-11.

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SECTION 7 - RELIEF REQUESTS

RECORD OF REVISION			
REVISION No.	DATE	AFFECTED PAGES	REASON FOR REVISION
0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

7.0 RELIEF REQUESTS

7.1 Second Inspection Interval

During the Second Ten Year Inservice Inspection Interval, 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 and submitted to the USNRC as required by 10 CFR 50.55a.

7.2 Third Inspection Interval

A detailed review of the previously submitted Requests for Relief was performed, and based on that review, Requests for Relief on items which remain applicable for the Third Inservice Inspection Interval are included in Appendix F of this program. Appendix F includes a listing and the status of each Request for Relief submitted to the USNRC as part of this program.

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 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 Relief Request 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, NMPC 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.

7.3 Relief Request Content

Each Request for Relief will contain the following information:

A. Component Identification - describes the Code Class, Code Examination Category (if applicable) and a brief description;

B. Examination Requirement - describes the Code Item Number(s) and the examination requirements;

C. Relief Requested - provides a description of the relief from the requirements of the Code that cannot be complied with;

D. Basis for Relief - describes justification to support the reason relief is being requested;

E. Alternative Examination - describes examination(s) or tests that NMPC proposes

to use in lieu of the current requirements;

F. Implementation Schedule - denotes the interval, period, and/or outage (whichever is applicable), that NMPC proposes to implement the relief;

G. Attachments to the Relief - identify all Figures, Tables, Sketches, Photographs, etc., attached to the Request for Relief. All attachments should be referenced within the applicable text.

Note: Following receipt of the USNRC Safety Evaluation, a USNRC Response Section may be added to each Relief.

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SECTION 8 - ACCEPTANCE STANDARDS

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8.0 ACCEPTANCE CRITERIA

Indications detected by inservice examinations shall be compared against the acceptance criteria of Section XI as defined in Tables 8-1 through 8-4.

8.1 Acceptance by Examination

Components whose examination either confirms the absence of flaws/conditions or reveals 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 in accordance with Section 10 of this program.

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

8.2 Acceptance by Repair

Components whose volumetric or surface examination reveals defects/conditions that exceed the acceptance criteria of Tables 8-1 through 8-5 shall be unacceptable for continued service until removed by mechanical methods or until the component is repaired to the .extent necessary to meet the acceptance criteria in 8.1. Repairs are further addressed in Section 10.

Note: The additional examination requirements of IWB-2430, IWC-2430, IWE-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 Replacement

As an alternative to repair requirements of 8.2, the component, or the portion of the component containing the defect/condition shall be replaced. Replacements are further addressed in Section 9.

8.4 Acceptance by Analytical Evaluation

Components whose volumetric or surface examination reveals defects that exceed the acceptance criteria of Tables 8-1 through 8-5 are acceptable for continued service without defect removal, repair or replacement if an analytical evaluation meets the acceptance criteria of IWB-3600 or IWC-3600 as applicable, or for Class MC meets the engineering evaluation criteria of 8.5.

Where the acceptance criteria of IWB-3600 or IWC-3600 are satisfied, the area containing the defect shall be subsequently reexamined in accordance with 8.4.1, 8.4.2 or 8.4.3.

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

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 defects shall be reexamined during the next three (3) inspection periods of Inspection Program B (IWB-2412-1). Provided the defects remain 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 defects shall be reexamined during the next inspection period of Inspection Plan B (IWB-2412-1). Provided the defects remain essentially unchanged for the next inspection period, the component examination schedule will revert to the original schedule of successive inspections.

8.4.3 Class MC Components

When component examination results require evaluation of flaws, areas of degradation, or repair in accordance with IWE-3000, and the component is found to be acceptable for continued service, the areas containing such flaws, degradation, or repairs shall be reexamined during the next inspection period listed in the schedule of Inspection Program B (IWE-2412-1). When the reexamination required by IWE-2412(b) reveals that the flaws, areas of degradation, or repairs remain essentially unchanged for three consecutive inspection periods, the areas containing such flaws, degradation, or repairs no longer require augmented examination in accordance with Table IWE-2500-1, Examination Category E-C.

8.5 Acceptance by Engineering Evaluation

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

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

C. Indications 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 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. Components whose examination results reveal flaws or areas of degradation that exceed the acceptance criteria of Table 8-5 are acceptable for continued service without defect removal, repair or replacement if an engineering evaluation indicates that the flaw or area of degradation is nonstructural in nature or has no effect on the structural integrity of the containment.

F. 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.

G. 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, analytical evaluation, or replacement, as appropriate.

8.6 Acceptance by Correction

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

Adjustment and reexamination for conditions such as:

1. Detached or loosened mechanical connections;
2. Improper hot or cold positions of spring supports and constant load supports;
3. Misalignment of supports; or
4. Improper displacement settings of guides and stops.

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.

8.7 Acceptance by Supplemental Examination

Volumetric, visual, or surface examinations that detect indications requiring evaluation may be supplemented by other examination methods and techniques to determine the character of the indication/condition.

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.

8.8 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.

8.9 Additional Examinations

8.9.1 Class 1

The additional examination requirements identified in IWB-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 remaining welds, areas, or parts within the same Code Item Number for:

   1. The existing period

   2. The next subsequent inspection period, even if the period falls within the next interval.

b. If the examinations for that inspection item are not scheduled in the subsequent period, the most immediate period containing scheduled examinations shall be taken as the subsequent period.

c. If the additional examinations reveal service induced defects/conditions, the examinations shall be further extended to include all welds, areas, or parts of similar design, size, and function.

d. Additional examinations of welds, areas, or parts may be limited to welds, areas, or parts of similar design, size, and function.

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

8.9.2 Class 2

The additional examination requirements identified in IWC-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. An additional number of components or areas, within the same examination category, approximately equal to the number of components or areas examined initially.

b. If the additional examinations reveal service induced defects/conditions, the examinations shall be further extended to include remaining number of similar components or areas within the same examination category.

c. Additional examinations of welds, areas, or parts may be limited to welds, areas, or parts of similar design, size, and function.

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

8.9.3 Class 3

There are no additional examination requirements identified in IWD-2000, therefore additional examinations 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. An additional number of components or areas, within the same examination item number, system, and line, and will include the following:

   1. The next component or area, upstream and downstream of the initial defect or condition.

   2. If the additional examinations reveal service induced defects/conditions, the examinations shall be further extended to include remaining number of similar components or areas within the same item number, system or line.

b. Additional examinations of welds, areas, or parts may be limited to welds, areas, or parts of similar design, size, and function.

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

8.9.4 Component Supports

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 component supports immediately adjacent to the initially identified support with the defect/condition.

c. Additional supports equal in number and similar in type, design, and function to those initially examined.

d. When these additional examinations reveal defect/conditions, the remaining supports within the item number, system or line shall be examined.

e. Additional examinations of supports may be limited to supports within the same system or line of the same type, design, and function.

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

8.9.5 Class MC

The additional examination requirements identified in IWE-2430 shall be performed for any one inspection that reveals flaws or areas of degradation as follows:

a. Examinations performed during any one inspection that reveal flaws or areas of degradation exceeding the acceptance standards of Table IWE-3410-1 shall be extended to include an additional number of examinations within the same category approximately equal to the initial number of examinations during the inspection.

b. When additional flaws or areas of degradation that exceed the acceptance standards of Table 8-5 are revealed, all remaining examinations within the same category shall be performed to the extent specified in Table IWE-2500-1 for the inspection interval.

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

Per 10CFR 50.55a(b)(x), NMPC shall evaluate the acceptability of inaccessible areas when conditions exist in accessible areas that could indicate the presence of or result in degradation to such inaccessible areas. The evaluations shall include

areas when conditions exist in accessible areas that could indicate the presence of or result in degradation to such inaccessible areas. The evaluations shall include the following information:

A. A description of the type and estimated extent of degradation, and the conditions that led to the degradation;

B. An evaluation of each area, and the results of the evaluation, and;

C. A description of necessary corrective actions.

8.9.6 IGSCC Sample Expansion

A. 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 should 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 second sample, all of the welds in that IGSCC Category should be inspected.

B. 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).

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

8.10 Defects Found Outside Section XI Examination

Defects/conditions that are found outside the course of a Section XI examination, shall be compared against the acceptance standards of Tables 8-1 through 8-4, as applicable.

TABLE 8-1 - CLASS 1 ACCEPTANCE STANDARDS

EXAMINATION CATEGORY	COMPONENT OR PART EXAMINED	ACCEPTANCE STANDARD
B-A	Welds in Reactor Vessels	IWB-3510
B-B	Welds in Other Vessels	IWB-3510
B-D	Vessel Nozzle Welds	IWB-3512
B-E	Partial Penetration welds in Vessels	IWB-3522
B-F, B-J	Dissimilar and Similar Metal Welds in Piping	IWB-3514
B-G-1	Bolting > 2" dia.	IWB-3515/3517
B-G-2	Bolting ≤ 2" dia.	IWB-3517
B-H, B-K-1	Integral Attachments for Piping, Valves, Pumps & Vessels	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-3520.1 IWB-3520.2
B-O	Control Rod Drive 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	Nozzle Welds in Vessels	IWC-3511
C-C	Integral 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.

TABLE 8-4 - COMPONENT SUPPORT ACCEPTANCE STANDARDS		
EXAMINATION CATEGORY	COMPONENT OR PART EXAMINED	ACCEPTANCE STANDARD
F-A	Supports	IWF-3410

TABLE 8-5 - CLASS MC ACCEPTANCE STANDARDS		
EXAMINATION CATEGORY	COMPONENT OR PART EXAMINED	ACCEPTANCE STANDARD
E-A	Containment Surface	IWE-3510
E-B	Pressure Retaining Welds	IWE-3511
E-C	Containment Surfaces requiring Augmented Examinations	IWE-3512
E-D	Seals, gaskets, and moisture barriers	IWE-3513
E-F	Pressure retaining dissimilar metal welds	IWE-3514
E-G	Pressure retaining bolting	IWE-3515
E-P	All pressure retaining components	Appendix J

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SECTION 9 - REPAIRS, REPLACEMENTS, MODIFICATIONS

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9.0 REPAIRS, REPLACEMENTS AND MODIFICATIONS

Scope

This section establishes the program by which the Nine Mile Point Nuclear Power Station will define the managerial and administrative controls over the implementation and completion of repairs, replacement (modifications) and maintenance of items that require subsequent inservice examinations or tests.

This section implements the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," hereafter referred to as the Code, 1989 Edition, no Addenda, for the Repair, Replacement (modification), and Installation of Replacement Activities at the Nine Mile Point Nuclear Power Station. The repairs and replacements for components which are within the provisions of ASME Boiler and Pressure Vessel Code, Section XI, 1992 Edition with the 1992 Addenda of Subsection IWE, "Requirements for Class MC Metallic Liners of Class CC Components of Light-Water Cooled Power Plants," incorporated by reference in 10 CFR 50.55a, will be controlled in accordance with this program.

The repairs and replacements for which these provisions apply are restricted to those performed on systems and components classified Class 1, 2, 3, and Class MC pressure retaining components and their integral attachments.

ASME Section XI Repairs and Replacements shall be conducted in accordance with the Niagara Mohawk Power Corporation implementing Repair/Replacement procedures.

9.1 Repairs

Repairs for which these provisions apply are restricted to those performed on systems and components classified Quality Group A, B or C, (Class 1, 2, 3) and Class MC pressure retaining components and their integral attachments. Repairs shall be performed in accordance with NMPC's NMP1 Design Specification and the original Construction Code of the component or system. However, as allowed by paragraph IWA-4120, later Editions and Addenda of the Construction Code or of Section III, either in their entirety or portions thereof, and Code Cases may be used. The later editions and Addenda of Section XI, either in their entirety or portions thereof, may be used for the repair program, provided these Editions and Addenda of Section XI at the time of the planned repair have been incorporated by reference in amended regulations of the regulatory authority having jurisdiction at the plant site.

9.1.1 Exemptions

The repair of piping, valves and fittings, nominal pipe size (1) one inch and less are exempt from NDE and pressure testing, but shall comply with all other rules of this section. These repairs shall be made in accordance with the applicable plant procedure for repair/replacement and meet the requirements of the NMPC Quality Assurance Program.

9.1.2 Repair Operations

Code repairs are performed in accordance with approved procedures or instructions that meet the requirements of IWA-4000.

Repair operations shall be performed in accordance with a program delineating requirements of the complete repair cycle and shall include the following:

(a) The NDE method that revealed the flaw and the description of the flaw.

(b) The flaw removal method, method of measurement of the cavity created by removing the flaw and dimensional requirements for reference points during and after the repair.

(c) Weld procedures and postweld heat treatment, and the non-destructive examination program to be used after the repair.

(d) Evaluation as described in 9.5.

(e) The repair programs shall be subject to review by the enforcement and regulatory authorities having jurisdiction at the plant site.

9.1.3 Pressure Testing

After repairs by welding on the pressure retaining boundary, a pressure test shall be performed in accordance with the requirements of the Inservice Pressure Testing Program, Document NMP1-PT-003.

9.1.4 Baseline Examinations

When required by Section XI, the repaired area shall be reexamined to establish a new preservice record. The examination shall include the method that detected the flaw.

9.2 Replacements

Replacements are performed using approved procedures or instructions in accordance with IWA-7000.

All procedures for the installation of renewal, spare, and replacement parts shall be in accordance with IWA-4100. Alternatively, subsequent Editions and Addenda of Section XI may be used for replacement provided these Editions and Addenda are acceptable to the enforcement and regulatory authorities having jurisdiction at the site.

9.2.1 Replacement Operations

The program for replacements shall include the following:

(a) The applicable Construction Code to which the original item was constructed

(b) The existing design requirements (if the original item was constructed without Code requirements, the item to be used for replacement shall be in accordance with the design, fabrication, and examination requirements for the original item unless the alternative of (c) below is adopted).

(c) Alternatively, an item to be used for replacement may meet all or portions of the requirements of later editions of the Construction Code or Section III, when the Construction Code was not Section III, provided that the following requirements are met.

(1) The requirements affecting the design, fabrication, and examination of the item to be used for replacement are reconciled with the Owner's through the Stress Analysis Report, Design Report, or other suitable method that demonstrates the item is satisfactory for the specified design and operating conditions.

(d) A description of the work to be performed.

(e) The Code Edition, Addenda and Code Cases applicable to materials, design manufacture, and installation.

(f) Any special requirements pertaining to materials, welding, heat treatment, and nondestructive examination requirements.

(g) Mechanical interfaces, fits, and tolerances that provide satisfactory performance are compatible with system and component requirements.

(h) Materials are compatible with installation and system requirements.

(I) The test and acceptance criteria to be used to verify the acceptability of the replacement.

(j) The documentation required by IWA-7500.

(k) The application of the ASME NA Code Symbol Stamp is neither required nor prohibited for the installation of a item to be used for replacement.

9.2.2 Engineering Approval

Replacements that involve substitution of materials, dimensional changes, process changes, deviations to specifications or changes to design codes require engineering approval.

9.2.3 Pressure Testing

Pressure testing shall be performed on replacements in accordance with the Inservice Pressure Testing Program, Document NMP1-PT-003.

9.2.4 Preservice Examinations

Prior to the system's return to service, a preservice inspection shall be made in accordance with IWB-2200, IWC-2200, IWD-2200, IWF-2200, IWE-2200.

Post-Work testing and pressure testing will be performed as delineated in applicable Plant Procedure(s).

9.3 Repair/Replacement Activities for IWE Class MC Components

The USNRC amended 10 CFR 50.55a, by reference the 1992 Edition with the 1992 Addenda of Section XI, to incorporate subsection IWE - "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants", and Subsection IWL - Requirements for Class CC Concrete Components of Light-Water Cooled Power Plants".

Note: Subject IWL is not applicable to Nine Mile Point Nuclear Power Station , as the NMP1 Plant uses a steel primary containment.

9.3.1 IWE Exempt Components

The following components (or parts of components) are exempted from the examination requirements of IWE-2000:

(a) Vessels, parts, and appurtenances that are outside the boundaries of the containment as defined in the Design Specifications;

(b) Embedded or inaccessible portions of containment vessels, parts, and appurtenances that met the requirements of the original Construction Code;

(c) Portions of containment vessels, parts, and appurtenances that become embedded or inaccessible as a result of vessel repair or replacement if the conditions of IWE-1232 and IWE-5220 are met;

(d) Piping, pumps, and valves that are part of the containment system, or which penetrate or are attached to the containment vessel. These components shall be examined in accordance with the rules of IWB or IWC, as appropriate to the classification defined by the Design Specifications.

9:3.2 IWE Class MC Components - Operations

The program for Class MC components and their integral attachments for Repair/Replacements shall include the following:

(a) The Primary Containment System at NMP1, which is defined as a General Electric Mark 1 Pressure Suppression Containment.

9.3.3 IWE Class MC Components Examination Requirements

(a) Examination requirements shall apply to Class MC pressure retaining components and their integral attachments. These examinations shall apply to surface areas, including welds and base metal.

Note: Pursuant to 10 CFR50.55a(b)(2)(x)(C) examination of pressure retaining welds and pressure retaining dissimilar metal welds are optional.

(b) Preservice Examinations shall be performed in accordance with the requirements defined in IWE-2200, Preservice Examination.

(c) Visual examinations performed during the conduct of a system pressure test shall be in accordance with Inservice Pressure testing Program, Document NMP1-PT-003.

9.3.4 IWE Class MC Examination and Pressure Test Requirements

Examination and Pressure Test requirements shall be performed in accordance with the requirements defined in IWE-2500, Examination and Pressure Test Requirements, IWE-5200, System Test Requirements, applicable Code Cases that are approved for use and accepted for implementation within the ISI Repair/Replacement Program, or approved USNRC Relief Requests for the component and/or part.

9.3.5 IWE Class MC Components Examination Qualifications

Examination qualifications shall meet those requirements of IWA-2300, applicable Code Cases that are approved for use and accepted for implementation within the ISI Repair/Replacement Program, or USNRC approved Relief Request s as applicable.

9.4 Modifications

The performance of modifications is controlled in accordance with applicable plant procedures.

9.5 Evaluation

When the repair, replacement or modification is required because of failure of a part or component pressure boundary, an evaluation shall be done to ensure that the replacement is suitable and the repair procedure selected is suitable. The cause of failure shall be evaluated in accordance with the Code. Engineering evaluations shall be used to document conditional use of equipment ("use as is") or equipment substitutions when it is impractical to restore the equipment to the original design configuration by modification, repair, or direct replacement.

Note: Refer to Section 8 of this program for specific criteria for the acceptance and evaluation of IWB, IWC, IWD, IWF, and IWE components/systems.

9.6 Access

Accessibility for inservice inspection was considered during the design of the reactor vessel and insulation to ensure adequate working space and access for inspection. The selection of the components and locations to be inspected meet the intent of the ASME Boiler and Pressure Vessel Code, Section XI, "Inservice Inspection of Nuclear Reactor Coolant Systems", dated January 1, 1970.

Adequate access and clearances for examination and tests shall be considered by Nuclear Engineering as part of the processing of design or arrangement changes of system components in accordance with applicable Nuclear Engineering Procedures/Instructions.

9.7 Construction Codes

The procurement, design, fabrication and installation Components, parts, and piping shall be in accordance with the requirements of the FSAR and design specifications. Later Editions and Addenda of the Construction Code or of Section III, either in their entirety or portions thereof, and Code Cases may be used.

Welding activities shall be performed in accordance with NMPC Weld Control Manual.

9.8 Authorized Nuclear Inservice Inspector

The services of an Authorized Nuclear Inservice Inspector (ANII) shall be used when making all repairs/replacements. The repair planner shall be made available for review by the ANII for all welded repairs/replacements. The ANII shall determine what hold points, if any, are required to monitor the repair/replacement activity. NMPC shall notify the ANII prior to starting the repair, replacement or modification and keep the inspector informed of the progress of the work so that necessary inspections may be performed.

9.9 Implementation

All ASME Section XI Class 1, 2 and 3 Repairs and Replacements are controlled by site procedures.

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SECTION 10 - RECORDS

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10.0 RECORDS

This section provides the requirements for the preparation and submittal of Inservice Inspection records and reports as required by IWA-6000.

10.1 General

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

10.2 Inservice Inspection Summary Report

An Inservice Inspection Summary Report will be prepared at the completion of each inspection conducted during a refueling outage. Examinations, tests, replacements, and repairs conducted since the preceding summary report shall be included.

Note: As a alternate to the requirements of IWA-6000, NMPC has submitted a Request for Relief to implement Code Case N-532, "Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000, Section XI, Division 1".

Each Summary Report will contain the following:

a. Refueling outage number (when applicable).

b. Owner's Data Report for Inservice Inspections, Form NIS-1, Figure 11-1 or Form OAR-1, Figure 10-3.

c. Owner's Data Report for Repairs or Replacements Form NIS-2 or Form NIS-2A, Figure 11-2 and Figure 11-3.

Subject to Request for Relief: ISI-8

10.3 Cover Sheet

Each Summary Report will have a cover sheet providing 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

10.4 Summary Report Submittal

Ninety (90) days following the units return to service, NMPC shall forward a Summary Report of the Inservice Inspection activity to the United States Nuclear Regulatory Commission in accordance with IWA-6220, or the requirements specified in Code Case N-532, upon USNRC approval.

10.5 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 before resumption of operation.

10.6 Reporting Requirements for Class MC

Per 10 CFR 50.55a(b)(x), NMP1 shall provide the following in the Inservice Inspection Summary Report required by IWA-6000:

(1) A description of the type and estimated extent of degradation, and the condition that led to the degradation;

(2) An evaluation of each area, and the results of the evaluation, and;

(3) A description of necessary corrective action.

10.7 Reporting Requirements for NUREG 0619

Within 6 months of completing an outage at which these examinations were performed, NMP1 must submit a detailed report to the NRC Regional Director, IE, with copies to the Director, IE, and Director, NRR; discussing the inspections performed, including:

1. The number of startup/shutdown cycles since the previous inspection, and the total number of cycles. This includes cycles accumulated during the initial startup and testing of the plant.

2. A Summary of methods used and results of previous inspections, including maximum crack depth, number of cracks found, and number of startup/shutdown cycles between such inspections.

3. A description of any additional system changes or changes in operating procedures that will affect Feedwater flow or temperature and that should be considered in predicting future cracking tendencies based on past history.

4. A detailed discussion of the inspection results, including a complete description of cracking locations, dimensions, and a crack profile. The USNRC, if available, requests drawings and photographs.

5. Information regarding the results of leakage monitoring. However, the USNRC staff must be

informed immediately if on-line leakage monitoring, during operations, discloses any leakage from welded spargers, or leakage on the order of 0.3 gpm through single-sleeve/single-piston-ring spargers or triple sleeve spargers.

6. Information regarding all UT crack-like indications and any subsequent PT indications. Information regarding UT techniques should be as precise and as extensive as possible in order that it may be of benefit in future inspections.

FIGURE 10-1

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. Owner: Niagara Mohawk Power Corporation, 300 Erie Boulevard West, Syracuse, NY 13252
(Name and Address of Owner)

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

3. Plant Unit: 1   4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date : 12/26/1969   6. National Board Number for Unit: N/A

7. Components Inspected:

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 ½ x 11 in. (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FIGURE 10-1 (Continued)

NIS-1 Owner's Data Report
FORM NIS-1 (Back)

8. Examination Dates: ____________________ to ____________________

9. Inspection Period Identification: ____

10. Inspection Interval Identification: ____

11. Applicable Edition of Section XI: ____

12. Date/Revision of Inspection Plan: ____

13. **Abstract of Examinations and Tests.** Include a list of examinations and tests and a statement concerning status of work required for inspection Plan.

14. **Abstract of Results of Examinations and Tests.**

15. **Abstract of Corrective Measures.**

We certify that a) 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) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization NO. (if applicable) ______________________________ Expiration Date __________
Date ______________ 19 ______ Signed ______________________________ by ______________________________
Owner

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of ______________________________ and employed by ______________________ ______________ have inspected the components described in this OWNERS' Data Report during the period ________ ______________ to ______________________, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owners' Data Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, and 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.

______________________________ Commission Number
Inspector's Signature National Board, State, Province, and Endorsements
Date: ______________________________, 19 __________

FIGURE 10-2

FORM NIS-2 OWNERS' REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Niagara Mohawk Power Corporation Date: ____________
Name

300 Erie Boulevard West, Syracuse, New York 13252 Sheet ________ of ________
Address

2. Plant: Nine Mile Point Nuclear Power Station Unit: 1
Name

P.O. Box 63, Lycoming, New York 13093 ____________
(Repair Organization P.O. No., Job No., etc.)

3. Work Performed By: ____________ Type Code Symbol Stamp: ____________
Name Authorization No.: ____________
Expiration Date: ____________
____
Address

4. Identification of System: ____________

5. (a) Applicable Construction Code: ________ 19 ____ Edition ________ Addenda ________ Code Case

(b) Applicable Edition of Section XI Utilized for Repair or Replacement 19 ____

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Replaced Repaired or Replacement	ASME Code Stamped (Yes r No)

7. Description of Work: ____________

8. Test Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ]
OTHER [ ] Pressure: ________ Psi Test Temp: ________ Degree F

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 ½ x 11 in. (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FIGURE 10-2 (CONTINUED)

NIS-2 REPORT CONTINUED

9. Remarks: ______________________________
Applicable Manufacturer's Data Reports to be attached

____

____

____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this ______________ (Repair/Replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp: N/A

Certificate of Authorization No.: ______________ Expiration Date: ______________

Signed ______________________________ Date ____________, 19__
Owner or Owners' 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 components described in this Owners' Report during period ______________ to ______________, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certification neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owners' Report. 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 10-3

FORM OAR-1
OWNER'S ACTIVITY REPORT

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

Report Number ______

Owner ______ Niagara Mohawk Power Corporation, 300 Erie Boulevard West, Syracuse, New York 13252 ______
(Name and Address of Owner)

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

Plant Unit __1__ Commercial Service Date ______ 12/26/69 ______ Refueling Outage Number ______

Current Inspection Interval ______ Third Inservice Inspection Interval ______
(1st, 2nd, 3rd, 4th, Other)

Current Inspection Period ______
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the Inspection Plan ______ 1989 Edition, No Addenda ______

Date and Revision of Inspection Plan ______

on and Addenda of ASME Section XI applicable to Repairs and Replacements, if different than
nspection Plan ______

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owner's Activity Report are correct, and that the examinations, tests, repairs, replacements, evaluations and corrective measures represented by this report conform to the requirements of Section XI.

Certificate of Authorization No. ______ Expiration Date ______
(If applicable)

Signed ______ Date ______
(Owner's Representative and 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 this Owner's Activity Report, during the period ______ to ______, 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 examinations, tests, repairs, replacements, evaluations and corrective measures 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 10-3 (Continued)

TABLE 1
ABSTRACT OF EXAMINATION AND TESTS
As required by the provisions of the ASME Code Case N-532 Page of

CODE EXAMINATION CATEGORY	TOTAL EXAMINATIONS REQUIRED FOR INTERVAL	TOTAL EXAMINATIONS REQUIRED FOR THIS PERIOD	TOTAL EXAMINATIONS CREDITED (%) FOR THE PERIOD	TOTAL EXAMINATIONS CREDITED (%) TO DATE FOR THE INTERVAL	REMARKS
B-A	42				
B-B	NOT APPLICABLE TO NINE MILE POINT NUCLEAR POWER STATION UNIT 1				
B-D	80				
B-F	37				
B-G-1	403				
B-G-2	68				
B-H	NOT APPLICABLE TO NINE MILE POINT NUCLEAR POWER STATION UNIT 1. THIS CATEGORY HAS BEENCOMBINED WITH CATEGORY B-K PER CODE CASE N-509				
B-J	200				
B-K	30				CODE CASE N-509 APPLIES
B-L-1	NOT APPLICABLE TO NINE MILE POINT NUCLEAR POWER STATION UNIT 1				
B-L-2	1				
B-M-1	6				
B-M-2	17				WHEN DISSEMBLED
B-N-1	9				
B-N-2	76				
B-N-3	NOT APPLICABLE TO NINE MILE POINT NUCLEAR POWER STATION UNIT 1				
C-A	4				
C-B	4				
C-C	105				CODE CASE N-509 APPLIES
C-F-1	62				
C-F-2	66				
C-G	9				
D-A	487				CODE CASE N-509 APPLIES
F-A	188				CODE CASE N-491-1 APPLIES

FIGURE 10-3 (Continued)

TABLE 2
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRE EVALUATION FOR CONTINUED SERVICE

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

Page of

EXAMINATION CATEGORY	ITEM NUMBER	ITEM DESCRIPTION	FLAW CHARACTERIZATION (IWA-3300)	FLAW OR RELEVANT CONDITION FOUND DURING SCHEDULED SECTION XI EXAMINATION OR TEST (YES OR NO)
B-J	B9.11	32-WD-050 Valve to Pipe	IWB-3600	Yes
B-J	B9.11	32-WD-126 N1D Noz. SE to Elbow	IWB-3600	Yes
B-J	B9.11	32-WD-168 N1E Noz. SE to Elbow	IWB-3600	Yes
B-J	B9.11	32-WD-046 N1B Noz. SE to Elbow	IWB-3600	Yes
B-J	B9.11	32-WD-086 N1C Noz. SE to Elbow	IWB-3600	Yes
B-A	B1.12	RV-WD-140 Lower Vessel Long Weld	IWB-3600	Yes
B-A	B1.30	RV-WD-099 Shell to Flange Weld	IWB-3600	Yes

FIGURE 10-3 (Continued)

TABLE 3
ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

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

Page of

CODE CLASS	REPAIR REPLACEMENT OR CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	FLOW OR RELEVANT CONDITION FOUND DURING SCHEDULED SECTION XI EXAMINATION OR TEST (YES OR NO)	DATE COMPLETE	REPAIR REPLACEMENT PLAN NUMBER

FIGURE 10-4

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

Page __ of __

OWNER'S CERTIFICATE OF COMPLIANCE

I certify that the ____________________ represented by Repair/Replacement
repair or replacement

Plan Number________________ conforms to the requirements of Section XI.

Type Code Symbol Stamp____________________

Certificate of Authorization No.______________Expiration Date________

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 components described in Repair/Replacement Plan No.____________ during the period ________ to ________, 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___

TABLE OF CONTENTS

APPENDIX A - CLASS 1 SUMMARY TABLES

RECORD OF REVISION			
REVISION	DATE	AFFECTED	REASON FOR REVISION
0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

ASME CODE CLASS 1
SUMMARY TABLES

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible] - PRESSURE RETAINING WELDS IN REACTOR VESSEL

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B1.11	CIRCUMFERENTIAL SHELL WELDS	VOLUMETRIC	Reactor Vessel Welds	4	0	0	0	0	0	0	0	All Welds, 100% weld length, Deferral permissible
						0.0%		0.0%		0.0%		
B1.12	LONGITUDINAL SHELL WELDS	VOLUMETRIC	Reactor Vessel Welds	12	12	0	0	0	0	12	0	All Welds, 100% weld length, deferral permissible.
						0.0%		0.0%		100.0%		
B1.21	CIRCUMFERENTIAL HEAD WELDS	VOLUMETRIC	Reactor Vessel Welds	3	3	0	0	1	0	2	0	Access. length of All welds, 100% weld length, Deferral permissible.
						0.0%		33.3%		100.0%		
[illegible]	MERIDIONAL HEAD WELDS	VOLUMETRIC	Reactor Vessel Welds	[illegible]	[illegible]	6	0	2	0	14	0	Accessible length of All welds, 100% weld length, Deferral permissible.
						[illegible]		36.3%		100.0%		
B1.30	SHELL-TO-FLANGE WELD	VOLUMETRIC	Reactor Vessel Welds	2	2	1	0	0	0	1	0	100% of weld length, Partial Deferral Permissable See footnote (3) and (4).
						50.0%		50.0%		100.0%		
B1.40	HEAD-TO-FLANGE WELD	VOLUMETRIC SURFACE	Reactor Vessel Welds	1	3	1	0	1	0	1	0	100% of weld length, Partial Deferral Permissable see footnote 3.
						33.3%		66.6%		100.0%		
B1.51	REPAIR WELDS-BELTLINE REGION		N/A									
			CATEGORY TOTAL:	44	[illegible]	8	0	4	0	30	0	
						19.0%		28.5%		100.0%		

NINE MILE POINT NUCLEAR PLANT UNIT 1
INSERVICE INSPECTION PLAN FOR THE THIRD INTERVAL
CLASS 1 SECTION XI SUMMARY
TABLE A

- FULL PENETRATION WELDS OF NOZZLES IN VESSELS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B3.100	REACTOR VESSEL-NOZZLE INSIDE RADIUS SECTION	VOLUMETRIC	Control Rod Drive	1	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Emergency Condenser Supply	2	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Feedwater System	4	4	0 0 0.0%	0 0 0.0%	4 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Main Steam System	2	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Core Spray	2	2	1 0 50.0%	1 0 100.0%	0 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Head Vent	1	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Instrumentation	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Recirculation Discharge	5	5	1 0 20.0%	2 0 60.0%	2 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Recirculation Suction	5	5	2 0 40.0%	1 0 60.0%	2 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end

CLASS 1 SECTION XI SUMMARY

TABLE A

- FULL PENETRATION WELDS OF NOZZLES IN VESSELS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B3.100									of Interval
		VOLUMETRIC	Reactor Vessel Nozzles	17	17	5 0 29.4%	5 0 58.8%	7 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
			ITEM TOTAL:	40	40	12 0 30.0%	10 0 55.0%	18 0 100.0%	
B3.110	PRESSURIZER-NOZZLE-TO-VESSEL WELDS		N/A						
B3.120	PRESSURIZER-NOZZLE INSIDE RADIUS SECTION		N/A						
B3.130	STEAM GENERATORS (PRIMARY SIDE)-NOZZLE-TO-VESSEL WELDS		N/A						
40	STEAM GENERATORS (PRIMARY SIDE)-NOZZLE INSIDE RADIUS SECTION		N/A						
B3.90	REACTOR VESSEL-NOZZLE-TO-VESSEL WELDS	VOLUMETRIC	Control Rod Drive	1	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Emergency Condenser Supply	2	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Feedwater System	4	4	0 0 [illegible]	0 0 0.0%	4 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Main Steam System	2	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Core Spray	2	2	1 0 50.0%	1 0 100.0%	0 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end

[illegible] - FULL PENETRATION WELDS OF NOZZLES IN VESSELS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B3.90									of Interval
		VOLUMETRIC	Reactor Head Vent	1	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Instrumentation	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Recirculation Discharge	5	5	1 0 20.0%	2 0 60.0%	2 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Recirculation Suction	5	5	2 0 40.0%	1 0 60.0%	2 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
		VOLUMETRIC	Reactor Vessel Nozzles	17	17	5 0 29.4%	5 0 58.8%	7 0 100.0%	All Nozzles, 25% to 50% 1st period, Remainder by end of Interval
			ITEM TOTAL:	40	40	12 0 30.0%	10 0 55.0%	18 0 100.0%	
B3.150	HEAT EXCHANGERS (PRIMARY SIDE)-NOZZLE-TO-VESSEL WELDS		N/A						
B3.160	HEAT EXCHANGERS (PRIMARY SIDE)-NOZZLE INSIDE RADIUS SECTION		N/A						
B3.10	REACTOR VESSEL-NOZZLE-TO-VESSEL WELDS		N/A						
B3.20	REACTOR VESSEL-NOZZLE INSIDE RADIUS SECTION		N/A						
[illegible]	PRESSURIZER-NOZZLE-TO-VESSEL WELDS		N/A						
B3.40	PRESSURIZER-NOZZLE INSIDE RADIUS SECTION		N/A						

TABLE A

[illegible] - FULL PENETRATION WELDS OF NOZZLES IN VESSELS (INSPECTION

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B3.50	STEAM GENERATORS (PRIMARY SIDE)-NOZZLE-TO-VESSEL WELDS		N/A									
B3.60	STEAM GENERATORS (PRIMARY SIDE)-NOZZLE INSIDE RADIUS SECTION		N/A									
B3.70	HEAT EXCHANGERS (PRIMARY SIDE)-NOZZLE-TO-VESSEL WELDS		N/A									
B3.80	HEAT EXCHANGERS (PRIMARY SIDE)-NOZZLE INSIDE RADIUS SECTION		N/A									
			CATEGORY TOTAL:	80	80	24	0	20	0	36	0	
						30.0%		55.0%		100.0%		

TABLE A

- PRESSURE RETAINING PARTIAL PENETRATION WELDS IN VESSELS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B4.10	PARTIAL PENETRATION WELDS		N/A						
B4.11	VESSEL NOZZLES		N/A						
B4.12	CONTROL ROD DRIVE NOZZLES	VISUAL	Reactor Vessel Nozzles	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	25% of nozzles, Deferral permissible
B4.13	INSTRUMENTATION NOZZLES	VISUAL	Reactor Vessel Nozzles	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	25% of nozzles, Deferral permissible
B4.[illegible]	PRESSURIZER-HEATER PENETRATION WELDS		N/A						
			CATEGORY TOTAL:	2	2	0 0 0.0%	0 0 0.0%	2 0 100.0%	

B[illegible] - PRESSURE RETAINING DISSIMILAR METAL WELDS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B5.10	REACTOR VESSEL-NOZZLE-TO-SAFE END BUTT WELDS NPS 4 or LARGER	VOLUMETRIC SURFACE	Emergency Condenser Supply	2	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	All welds May coincide with Category B-D examinations
		VOLUMETRIC SURFACE	Reactor Core Spray	2	2	1 0 50.0%	1 0 100.0%	0 0 100.0%	All welds May coincide with Category B-D examinations
		VOLUMETRIC SURFACE	Reactor Head Vent	1	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	All welds May coincide with Category B-D examinations
		VOLUMETRIC SURFACE	Reactor Instrumentation	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	All welds May coincide with Category B-D examinations
		VOLUMETRIC SURFACE	Reactor Recirculation Discharge	5	5	1 0 20.0%	2 0 60.0%	2 0 100.0%	All welds May coincide with Category B-D examinations
		VOLUMETRIC SURFACE	Reactor Recirculation Suction	5	5	2 0 40.0%	1 0 60.0%	2 0 100.0%	All welds May coincide with Category B-D examinations
		VOLUMETRIC SURFACE	Reactor Vessel Nozzles	17	17	6 0 35.2%	5 0 64.7%	6 0 100.0%	All welds May coincide with Category B-D examinations
			[illegible] TOTAL:	[illegible]	[illegible]	[illegible] 33.3%	[illegible] 63.6%	[illegible] 100.0%	
B5.100	HEAT EXCHANGERS-NOZZLE-TO-SAFE END BUTT WELDS, NPS 4 or LARGER	N/A							
B5.110	HEAT EXCHANGERS-NOZZLE-TO-SAFE END BUTT WELDS LESS	N/A							

[illegible] - PRESSURE RETAINING DISSIMILAR METAL WELDS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B5.110	THAN NPS 4								
B5.120	HEAT EXCHANGERS-NOZZLE-TO-SAFE END SOCKET WELDS		N/A						
B5.130	PIPING-DISSIMILAR METAL BUTT WELDS, NPS 4 or LARGER		N/A						
B5.140	PIPING-DISSIMILAR METAL BUTT WELDS, LESS THAN NPS 4		N/A						
B5.150	PIPING-DISSIMILAR METAL SOCKET WELDS		N/A						
B5.20	REACTOR VESSEL-NOZZLE-TO-SAFE END BUTT WELDS, LESS THAN NPS 4	SURFACE	Control Rod Drive	1	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	All welds May coincide with Category B-D examinations
		SURFACE	Liquid Poison	1	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	All welds May coincide with Category B-D examinations
		SURFACE	Reactor Instrumentation	2	2	0 0 0.0%	0 0 0.0%	2 0 100.0%	All welds May coincide with Category B-D examinations
			ITEM TOTAL:	4	4	2 0 50.0%	0 0 50.0%	2 0 100.0%	
B5.30	REACTOR VESSEL-NOZZLE-TO-SAFE END SOCKET WELDS		N/A						
B5.40	PRESSURIZER-NOZZLE-TO-SAFE END BUTT WELDS, NPS 4 or LARGER		N/A						
B5.50	PRESSURIZER-NOZZLE-TO-SAFE END BUTT WELDS LESS THAN NPS 4		N/A						
[illegible]0	PRESSURIZER-NOZZLE-TO-SAFE END SOCKET WELDS		N/A						

TABLE A

[illegible] - PRESSURE RETAINING DISSIMILAR METAL WELDS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B5.70	STEAM GENERATOR-NOZZLE-TO-SAFE END BUTT WELDS, NPS 4 or LARGER		N/A									
B5.80	STEAM GENERATOR-NOZZLE-TO-SAFE END BUTT WELDS, LESS THAN NPS 4		N/A									
B5.90	STEAM GENERATOR-NOZZLE-TO-SAFE END SOCKET WELDS		N/A									
			CATEGORY TOTAL:	37	37	13	0	10	0	14	0	
						35.1%		62.1%		100.0%		

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible]1 - PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B6.10	REACTOR VESSEL-CLOSURE HEAD NUTS	VISUAL	Closure Head Nuts	64	64	22 34.3%	0	21 67.1%	0	21 100.0%	0	All nuts
B6.100	STEAM GENERATORS-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED		N/A									
B6.110	STEAM GENERATORS-NUTS, BUSHINGS, AND WASHERS		N/A									
B6.120	HEAT EXCHANGERS-BOLTS AND STUDS		N/A									
B6.130	HEAT EXCHANGERS-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED		N/A									
B6.140	HEAT EXCHANGERS-NUTS, BUSHINGS, AND WASHERS		N/A									
[illegible]50	PIPING-BOLTS AND STUDS		N/A									
B6.160	PIPING-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED		N/A									
B6.170	PIPING-NUTS, BUSHINGS, AND WASHERS		N/A									
B6.180	PUMPS-BOLTS AND STUDS	VOLUMETRIC	Reactor Recirculation Pump 11	1	1	0 0.0%	0	1 100.0%	0	0 100.0%	0	All bolts & studs Limit to comp sched. by Cat. B-L-2
		VOLUMETRIC	Reactor Recirculation Pump 12	1	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	All bolts & studs Limit to comp sched. by Cat. B-L-2
		VOLUMETRIC	Reactor Recirculation Pump 13	1	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	All bolts & studs Limit to comp sched. by Cat. B-L-2
		VOLUMETRIC	Reactor Recirculation Pump 14	1	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	All bolts & studs Limit to comp sched. by Cat. B-L-2

[illegible] [illegible] [illegible]

CLASS 1 SECTION XI SUMMARY

TABLE A

1 - PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
		VOLUMETRIC	Reactor Recirculation Pump 15	1	0	0	0	0	0	0	0	All bolts & studs Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
			ITEM TOTAL:	5	1	0	0	1	0	0	0	
						0.0%		100.0%		100.0%		
B6.190	PUMPS-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED	VISUAL	Reactor Recirculation Pump 11	1	1	0	0	1	0	0	0	All flange surf., Limit to comp sched. by Cat. B-L-2
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Recirculation Pump 12	1	0	0	0	0	0	0	0	All flange surf., Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 13	1	0	0	0	0	0	0	0	All flange surf., Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 14	1	0	0	0	0	0	0	0	All flange surf., Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 15	1	0	0	0	0	0	0	0	All flange surf., Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
			ITEM TOTAL:	5	1	0	0	1	0	0	0	
						0.0%		100.0%		100.0%		
B6.20	REACTOR VESSEL-CLOSURE STUDS, IN PLACE	VOLUMETRIC SURFACE	Closure Head Studs	64	64	22	0	21	0	21	0	All studs
						34.3%		67.1%		100.0%		
B6.200	PUMPS-NUTS, BUSHINGS, AND WASHERS	VISUAL	Reactor Recirculation Pump 11	3	3	0	0	3	0	0	0	All nuts, bush. & wash Limit to comp sched. by Cat. B-L-2
						0.0%		100.0%		100.0%		

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible]1 - PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
		VISUAL	Reactor Recirculation Pump 12	3	0	0	0	0	0	0	0	All nuts, bush. & wash Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 13	3	0	0	0	0	0	0	0	All nuts, bush. & wash Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 14	3	0	0	0	0	0	0	0	All nuts, bush. & wash Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 15	3	0	0	0	0	0	0	0	All nuts, bush. & wash Limit to comp sched. by Cat. B-L-2
						0.0%		0.0%		0.0%		
			ITEM TOTAL:	15	3	0	0	3	0	0	0	
						0.0%		100.0%		100.0%		
B6.210	VALVES-BOLTS AND STUDS	VOLUMETRIC	Feedwater System	2	1	0	0	1	0	0	0	All bolts and studs, Limited to components selected under Category B-M-2,
						0.0%		100.0%		100.0%		
		VOLUMETRIC	Reactor [illegible]	[illegible]	1	1	0	0	0	0	0	All bolts and studs, Limited to components selected under Category B-M-2,
						[illegible]		100.0%		100.0%		
		VOLUMETRIC	Reactor Shutdown Cooling	1	1	0	0	0	0	1	0	All bolts and studs, Limited to components selected under Category B-M-2,
						0.0%		0.0%		100.0%		
			ITEM TOTAL:	5	3	1	0	1	0	1	0	
						33.3%		66.6%		100.0%		

1 - PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B6.220	VALVES-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED	VISUAL	Feedwater System	2	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	All flange surfaces, Limited to valve selected under Category B-M-2
		VISUAL	Reactor Core Spray	2	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	All flange surfaces, Limited to valve selected under Category B-M-2
		VISUAL	Reactor Shutdown Cooling	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	All flange surfaces, Limited to valve selected under Category B-M-2
			ITEM TOTAL:	5	3	1 0 33.3%	1 0 66.6%	1 0 100.0%	
B6.230	VALVES-NUTS, BUSHINGS, AND WASHERS	VISUAL	Feedwater System	2	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	All nuts, bushings, washers, Limited to valve selected under B-M-2
		VISUAL	Reactor Core Spray	6	3	3 0 100.0%	0 0 100.0%	0 0 100.0%	All nuts, bushings, washers, Limited to valve selected under B-M-2
		VISUAL	Reactor Shutdown Cooling	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	All nuts, bushings, washers, Limited to valve selected under B-M-2
			ITEM TOTAL:	9	5	3 0 60.0%	1 0 80.0%	1 0 100.0%	
	REACTOR VESSEL-CLOSURE STUDS, WHEN REMOVED	SURFACE	Closure Head Studs	1	3	1 0 33.3%	1 0 66.6%	1 0 100.0%	12 studs, Deferral Permissable, RG 1.26, C.2.b., a

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible]1 - PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B6.30												minimum of 4 per period
B6.40	REACTOR VESSEL-THREADS IN FLANGE	VOLUMETRIC	Reactor Vessel Flange	64	64	22	0	21	0	21	0	All threads in flange,
						34.3%		67.1%		100.0%		
B6.50	REACTOR VESSEL-CLOSURE WASHERS, BUSHINGS	VISUAL	Closure Head Washers	128	128	44	0	42	0	42	0	All washers & Bushings
						34.3%		67.1%		100.0%		
		VISUAL	Reactor Vessel Flange	64	64	22	0	21	0	21	0	All washers & Bushings
						34.3%		67.1%		100.0%		
			ITEM TOTAL:	192	192	66	0	63	0	63	0	
						34.3%		67.1%		100.0%		
B6.60	PRESSURIZER-BOLTS AND STUDS		N/A									
[illegible]	PRESSURIZER-FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED		N/A									
B6.80	PRESSURIZER-NUTS, BUSHINGS, AND WASHERS		N/A									
B6.90	STEAM GENERATORS-BOLTS AND STUDS		N/A									
			CATEGORY TOTAL:	429	403	138	0	135	0	130	0	
						34.2%		67.7%		100.0%		

TABLE A

[illegible]-2 - PRESSURE RETAINING BOLTING, 2 INCHES AND LESS IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B7.10	REACTOR VESSEL-BOLTS, STUDS, AND NUTS	VISUAL	Reactor Vessel Nozzles	18	18	5	0	5	0	8	0	All bolts, studs and nuts
						27.7%		55.5%		100.0%		
B7.20	PRESSURIZER-BOLTS, STUDS, AND NUTS		N/A									
B7.30	STEAM GENERATORS-BOLTS, STUDS, AND NUTS		N/A									
B7.40	HEAT EXCHANGERS-BOLTS, STUDS, AND NUTS		N/A									
B7.50	PIPING-BOLTS, STUDS, AND NUTS	VISUAL	Reactor Head Vent	[illegible]	2	2	0	0	0	0	0	All bolts, studs and nuts, Limited to B-J
						100.0%		100.0%		100.0%		
		VISUAL	Reactor Recirculation Discharge	5	5	2	0	2	0	1	0	All bolts, studs and nuts, Limited to B-J
						40.0%		80.0%		100.0%		
		VISUAL	Reactor Recirculation Suction	5	5	0	0	3	0	2	0	All bolts, studs and nuts, Limited to B-J
						0.0%		60.0%		100.0%		
			ITEM TOTAL:	12	12	4	0	5	0	3	0	
						33.3%		75.0%		100.0%		
B7.60	PUMPS-BOLTS, STUDS, AND NUTS	VISUAL	Reactor Recirculation Pump 11	1	1	0	0	1	0	0	0	All bolts, studs and nuts, Limited to B-L-2
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Recirculation Pump 12	1	0	0	0	0	0	0	0	All bolts, studs and nuts, Limited to B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 13	1	0	0	0	0	0	0	0	All bolts, studs and nuts, Limited to B-L-2
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 14	1	0	0	0	0	0	0	0	All bolts, studs and nuts, Limited to B-L-2
						0.0%		0.0%		0.0%		

TABLE A

[illegible]2 - PRESSURE RETAINING BOLTING, 2 INCHES AND LESS IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B7.60			Reactor Recirculation Pump 15									All bolts, studs and nuts, Limited to B-L-2
			ITEM TOTAL:	5	1	0	0	1	0	0	0	
						0.0%		100.0%		100.0%		
B7.70	VALVES-BOLTS, STUDS, AND NUTS	VISUAL	Control Rod Drive	3	3	1	0	0	0	2	0	All bolts, studs and nuts, Limited to B-M-2
						33.3%		33.3%		100.0%		
		VISUAL	Emergency Condenser Return	6	3	2	0	1	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						66.6%		100.0%		100.0%		
		VISUAL	Emergency Condenser Supply	4	0	0	0	0	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						0.0%		0.0%		0.0%		
		VISUAL	Feedwater System	2	1	1	0	0	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						100.0%		100.0%		100.0%		
		VISUAL	Liquid Poison	2	2	1	0	1	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						50.0%		100.0%		100.0%		
		VISUAL	Main Steam System	17	4	0	0	4	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Clean Up	4	1	0	0	1	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Core Spray	1[illegible]	5	[illegible]	0	1	0	2	0	All bolts, studs and nuts, Limited to B-M-2
						40.0%		60.0%		100.0%		
		VISUAL	Reactor Drain	4	4	0	0	2	0	2	0	All bolts, studs and nuts, Limited to B-M-2
						0.0%		50.0%		100.0%		

2 - PRESSURE RETAINING BOLTING, 2 INCHES AND LESS IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
		VISUAL	Reactor Head Vent	3	3	3	0	0	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						100.0%		100.0%		100.0%		
		VISUAL	Reactor Recirculation Discharge	10	5	1	0	2	0	2	0	All bolts, studs and nuts, Limited to B-M-2
						20.0%		60.0%		100.0%		
		VISUAL	Reactor Recirculation Suction	5	1	0	0	1	0	0	0	All bolts, studs and nuts, Limited to B-M-2
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Shutdown Cooling	3	1	0	0	0	0	1	0	All bolts, studs and nuts, Limited to B-M-2
						0.0%		0.0%		100.0%		
			ITEM TOTAL:	75	33	11	0	13	0	9	0	
						33.3%		72.7%		100.0%		
B7.80	CRD HOUSINGS-BOLTS, STUDS, AND NUTS	VISUAL	Control Rod Drive Housings	136	4	1	0	2	0	1	0	All bolts, studs and nuts, when CRD disassembled
						25.0%		75.0%		100.0%		
			CATEGORY TOTAL:	246	68	21	0	26	0	21	0	
						30.8%		69.1%		100.0%		

TABLE A

- PRESSURE RETAINING WELDS IN PIPING

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B9.11	CIRCUMFERENTIAL PIPE WELDS, NPS 4 or LARGER	VOLUMETRIC SURFACE	Emergency Condenser Return	32	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Emergency Condenser Supply	16	5	5 0 100.0%	0 0 100.0%	0 0 100.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Feedwater System	50	12	0 0 0.0%	1 0 8.3%	11 0 100.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Main Steam System	34	11	2 0 18.1%	1 0 27.2%	8 0 100.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Reactor Clean Up	30	11	0 0 0.0%	3 0 27.2%	8 0 100.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Reactor Core Spray	70	6	3 0 50.0%	2 0 83.3%	1 0 100.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Reactor Recirculation Discharge	43	17	5 0 29.4%	4 0 52.9%	8 0 100.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Reactor Recirculation Suction	54	19	4 0 21.0%	8 0 63.1%	7 0 100.0%	At least 25% of the welds
		VOLUMETRIC SURFACE	Reactor Shutdown Cooling	16	3	1 0 33.3%	1 0 66.6%	1 0 100.0%	At least 25% of the welds
			ITEM TOTAL:	345	84	20 0 23.8%	20 0 47.6%	44 0 100.0%	
B9.12	LONGITUDINAL PIPE WELDS, NPS 4 or LARGER	VOLUMETRIC SURFACE	Emergency Condenser Return	47	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	One pipe diameter or 12 inches of each weld selected under Categories B-F and B-J, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Core Spray	55	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	One pipe diameter or 12 inches of each weld selected

TABLE A

[illegible] - PRESSURE RETAINING WELDS IN PIPING

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B9.12												under Categories B-F and B-J, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Recirculation Discharge	78	18	5	0	5	0	8	0	One pipe diameter or 12 inches of each weld selected under Categories B-F and B-J, Code Case N-524
						27.7%		55.5%		100.0%		
		VOLUMETRIC SURFACE	Reactor Recirculation Suction	83	26	4	0	13	0	9	0	One pipe diameter or 12 inches of each weld selected under Categories B-F and B-J, Code Case N-524
						15.3%		65.3%		100.0%		
		VOLUMETRIC SURFACE	Reactor Shutdown Cooling	25	2	0	0	2	0	0	0	One pipe diameter or 12 inches of each weld selected under Categories B-F and B-J, Code Case N-524
						0.0%		100.0%		100.0%		
			ITEM TOTAL:	288	46	9	0	20	0	17	0	
						19.5%		63.0%		100.0%		
B9.21	CIRCUMFERENTIAL PIPE WELDS, LESS THAN NPS 4	SURFACE	Control Rod Drive	20	8	7	0	0	0	1	0	At least 25% of the welds
						87.5%		87.5%		100.0%		
		SURFACE	Liquid Poison	20	5	4	0	0	0	1	0	At least 25% of the welds
						80.0%		80.0%		100.0%		
		SURFACE	Main Steam System	14	4	2	0	1	0	1	0	At least 25% of the welds
						50.0%		75.0%		100.0%		
		SURFACE	Reactor [illegible] Spray	[illegible]	[illegible]	[illegible]	0	3	0	5	0	At least 25% of the welds
						[illegible]		[illegible]		100.0%		
		SURFACE	Reactor Drain	12	1	0	0	1	0	0	0	At least 25% of the welds
						0.0%		100.0%		100.0%		

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible] - PRESSURE RETAINING WELDS IN PIPING

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
		SURFACE	Reactor Head Vent	11	4	4	0	0	0	0	0	At least 25% of the welds
						100.0%		100.0%		100.0%		
		SURFACE	Reactor Instrumentation	5	2	0	0	0	0	2	0	At least 25% of the welds
						0.0%		0.0%		100.0%		
		SURFACE	Reactor Instrumentstion	1	0	0	0	0	0	0	0	At least 25% of the welds
						0.0%		0.0%		0.0%		
		SURFACE	Reactor Recirculation Discharge	30	5	0	0	0	0	5	0	At least 25% of the welds
						0.0%		0.0%		100.0%		
		SURFACE	Reactor Recirculation Suction	2	1	0	0	0	0	1	0	At least 25% of the welds
						0.0%		0.0%		100.0%		
			ITEM TOTAL:	164	44	23	0	5	0	16	0	
						52.2%		63.6%		100.0%		
B9.22	LONGITUDINAL PIPE WELDS, LESS THAN NPS 4		N/A									
B9.31	BRANCH CONNECTION WELDS, NPS 4 or LARGER	VOLUMETRIC SURFACE	Main Steam System	6	2	2	0	0	0	0	0	At least 25% of the welds
						100.0%		100.0%		100.0%		
		VOLUMETRIC SURFACE	Reactor Core Spray	2	0	0	0	0	0	0	0	At least 25% of the welds
						0.0%		0.0%		0.0%		
		VOLUMETRIC SURFACE	Reactor Recirculation Suction	1	1	0	0	1	0	0	0	At least 25% of the welds
						0.0%		100.0%		100.0%		
			ITEM TOTAL:	9	3	2	0	1	0	0	0	
						66.6%		100.0%		100.0%		
B9.32	BRANCH CONNECTION WELDS, LESS THAN NPS 4	SURFACE	Main Steam System	3	1	0	0	1	0	0	0	At least 25%
						0.0%		100.0%		100.0%		
		SURFACE	Reactor Clean Up	1	1	1	0	0	0	0	0	At least 25%
						100.0%		100.0%		100.0%		

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible] - PRESSURE RETAINING WELDS IN PIPING

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
		SURFACE	Reactor Core Spray	4	1	0	0	1	0	0	0	At least 25%
						0.0%		100.0%		100.0%		
		SURFACE	Reactor Recirculation Discharge	10	2	1	0	1	0	0	0	At least 25%
						50.0%		100.0%		100.0%		
		SURFACE	Reactor Recirculation Suction	[illegible]	2	0	0	1	0	1	0	At least 25%
						0.0%		50.0%		100.0%		
			ITEM TOTAL:	26	7	2	0	4	0	1	0	
						28.5%		85.7%		100.0%		
B9.40	SOCKET WELDS	SURFACE	Main Steam System	9	1	0	0	1	0	0	0	At least 25% of the welds
						0.0%		100.0%		100.0%		
		SURFACE	Reactor Drain	10	5	0	0	2	0	3	0	At least 25% of the welds
						0.0%		40.0%		100.0%		
		SURFACE	Reactor Head Vent	14	4	4	0	0	0	0	0	At least 25% of the welds
						100.0%		100.0%		100.0%		
		SURFACE	Reactor Instrumentation	6	1	0	0	0	0	1	0	At least 25% of the welds
						0.0%		0.0%		100.0%		
		SURFACE	[illegible] Discharge	[illegible]	[illegible]	[illegible]	0	4	0	5	0	At least 25% of the welds
						[illegible]		44.4%		100.0%		
			ITEM TOTAL:	69	20	4	0	7	0	9	0	
						20.0%		55.0%		100.0%		
			CATEGORY TOTAL:	901	204	60	0	57	0	87	0	
						29.4%		57.3%		100.0%		

TABLE A

[illegible]- INTEGRAL ATTACHMENTS FOR PIPING, PUMPS, AND VALVES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B10.20	PIPING-INTEGRALLY WELDED ATTACHMENTS	SURFACE	Control Rod Drive	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Emergency Condenser Return	10	2	2 0 100.0%	0 0 100.0%	0 0 100.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Feedwater System	18	4	0 0 0.0%	0 0 0.0%	4 0 100.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Main Steam System	16	4	0 0 0.0%	4 0 100.0%	0 0 100.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Reactor Clean Up	23	2	0 0 0.0%	2 0 100.0%	0 0 100.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Reactor Core Spray	34	4	0 0 0.0%	0 0 0.0%	4 0 100.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Reactor Drain	4	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of all Welded attachments of

[illegible] - INTEGRAL ATTACHMENTS FOR PIPING, PUMPS, AND VALVES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B10.20									piping required under Category B-J, Code Case N-509
		SURFACE	Reactor Recirculation Discharge	24	4	4 0 100.0%	0 0 100.0%	0 0 100.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Reactor Recirculation Suction	20	4	0 0 0.0%	0 0 0.0%	4 0 100.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
		SURFACE	Reactor Shutdown Cooling	5	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of all Welded attachments of piping required under Category B-J, Code Case N-509
			ITEM TOTAL:	155	24	6 0 25.0%	6 0 50.0%	12 0 100.0%	
B10.30	PUMPS-INTEGRALLY WELDED ATTACHMENTS		N/A						
B10.40	VALVES-INTEGRALLY WELDED ATTACHMENTS	SURFACE	Control Rod Drive	1	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	10% of all Welded attachments of valves required under Category B-J, Code Case N-509
		SURFACE	Liquid Poison	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of all Welded attachments of valves required under Category B-J, Code Case N-509

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible] - INTEGRAL ATTACHMENTS FOR PIPING, PUMPS, AND VALVES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B10.40									10% of all Welded attachments of valves required under Category B-J, Code Case N-509
		SURFACE	Reactor Core Spray	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of all Welded attachments of valves required under Category B-J, Code Case N-509
		SURFACE	Reactor Shutdown Cooling	2	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	10% of all Welded attachments of valves required under Category B-J, Code Case N-509
			ITEM TOTAL:	8	3	0 0 0.0%	1 0 33.3%	2 0 100.0%	
B10.10	PRESSURE VESSEL-INTEGRALLY WELDED ATTACHMENTS	SURFACE	Reactor Vessel Supports	6	3	1 0 33.3%	1 0 66.6%	1 0 100.0%	100% of the length of the welds to the vessel.Code Case N-509
			CATEGORY TOTAL:	169	30	7 0 23.3%	8 0 50.0%	15 0 100.0%	

1 - PRESSURE RETAINING WELDS IN PUMP CASING

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B12.10	PUMPS-PUMP CASING WELDS		N/A									
			CATEGORY TOTAL:	0	0	0	0	0	0	0	0	
						0.0%		0.0%		0.0%		

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible]2 - PUMP CASINGS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B12.20	PUMPS-PUMP CASINGS	VISUAL	Reactor Recirculation Pump 11	1	1	0	0	1	0	0	0	One pump, when disassembled for maint.
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Recirculation Pump 12	1	0	0	0	0	0	0	0	One pump, when disassembled for maint.
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 13	1	0	0	0	0	0	0	0	One pump, when disassembled for maint.
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 14	1	0	0	0	0	0	0	0	One pump, when disassembled for maint.
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation Pump 15	1	0	0	0	0	0	0	0	One pump, when disassembled for maint.
						0.0%		0.0%		0.0%		
			ITEM TOTAL:	5	1	0	0	1	0	0	0	
						0.0%		100.0%		100.0%		
			CATEGORY TOTAL:	5	1	0	0	1	0	0	0	
						0.0%		0.0%		100.0%		

TABLE A

B-M-1 - PRESSURE RETAINING WELDS IN VALVE BODIES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B12.30	VALVES-VALVE BODY WELDS, LESS THAN NPS 4		N/A									
B12.40	VALVES-VALVE BODY WELDS, NPS 4 or LARGER	VOLUMETRIC	Main Steam System	6	1	0	0	1	0	0	0	Limited to one valve in a group of valves
						0.0%		100.0%		100.0%		
			CATEGORY TOTAL:	6	1	0	0	1	0	0	0	
						0.0%		0.0%		100.0%		

CLASS 1 SECTION XI SUMMARY

TABLE A

2 - VALVE BODIES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B12.50	VALVES-VALVE BODIES EXCEEDING 4 INCHES NOMINAL PIPE SIZE	VISUAL	Emergency Condenser Return	6	3	2	0	1	0	0	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						66.6%		100.0%		100.0%		
		VISUAL	Emergency Condenser Supply	4	1	0	0	0	0	1	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						0.0%		0.0%		100.0%		
		VISUAL	Feedwater System	4	[illegible]	1	0	1	0	0	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						50.0%		100.0%		100.0%		
		VISUAL	Main Steam System	16	3	0	0	3	0	0	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Clean Up	4	2	0	0	2	0	0	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						0.0%		100.0%		100.0%		
		VISUAL	Reactor Core Spray	10	2	2	0	0	0	0	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						100.0%		100.0%		100.0%		
		VISUAL	Reactor Recirculation Discharge	5	0	0	0	0	0	0	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						0.0%		0.0%		0.0%		
		VISUAL	Reactor Recirculation	5	1	0	0	1	0	0	0	One valve each group of valves if
						0.0%		100.0%		100.0%		

TABLE A

2 - VALVE BODIES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B12.50			Suction									diss. for mnt. reasons Defer Permis
		VISUAL	Reactor Shutdown Cooling	4	2	0	0	0	0	2	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						0.0%		0.0%		100.0%		
		VISUAL	Reactor Vessel Nozzles	8	1	1	0	0	0	0	0	One valve each group of valves if diss. for mnt. reasons Defer Permis
						100.0%		100.0%		100.0%		
			ITEM TOTAL:	66	17	6	0	8	0	3	0	
						35.2%		82.3%		100.0%		
			CATEGORY TOTAL:	66	17	6	0	8	0	3	0	
						35.2%		82.3%		100.0%		

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible]1 - INTERIOR OF REACTOR VESSEL

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B13.10	REACTOR VESSEL-VESSEL INTERIOR	VISUAL	Reactor Vessel Interior	3	6	2	0	2	0	2	0	First refuel outage then once each inspection period
						33.3%		66.6%		100.0%		
			CATEGORY TOTAL:	3	6	2	0	2	0	2	0	
						33.3%		0.0%		100.0%		

TABLE A

B-N-2 - INTEGRALLY WELDED CORE SUPPORT STRUCTURE

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B13.40	REACTOR VESSEL (BWR)-CORE SUPPORT STRUCTURE	VOLUMETRIC VISUAL	Reactor Vessel Interior	49	61	35	0	12	0	14	0	Accessible surfaces
						57.3%		77.0%		100.0%		
B13.20	REACTOR VESSEL (BWR)-INTERIOR ATTACHMENTS WITHIN BELTLINE REGION	VISUAL	Reactor Vessel Interior	5	5	1	0	2	0	2	0	All welds Deferral Permissable
						20.0%		60.0%		100.0%		
B13.30	REACTOR VESSEL (BWR)-INTERIOR ATTACHMENTS BEYOND BELTLINE REGION		N/A									
B13.50	REACTOR VESSEL (PWR)-INTERIOR ATTACHMENTS WITHIN BELTLINE REGION		N/A									
B13.60	REACTOR VESSEL (PWR)-INTERIOR ATTACHMENTS BEYOND BELTLINE REGION		N/A									
			CATEGORY TOTAL:	54	66	36	0	14	0	16	0	
						54.5%		75.7%		100.0%		

TABLE A

[illegible]-3 - REMOVABLE CORE SUPPORT STRUCTURES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
B13.70	REACTOR VESSEL (PWR)-CORE SUPPORT STRUCTURE		N/A						
			CATEGORY TOTAL:	0	0	0 0	0 0	0 0	
						0.0%	0.0%	0.0%	

CLASS 1 SECTION XI SUMMARY

TABLE A

B-[illegible] - PRESSURE RETAINING WELDS IN CONTROL ROD HOUSINGS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
B14.10	REACTOR VESSEL-WELDS IN CONTROL ROD DRIVE HOUSINGS	SURFACE	Control Rod Drive Housings	8	8	2	0	3	0	3	0	10% peripheral CRD Housings, Deferral Permissable
						25.0%		62.5%		100.0%		
			CATEGORY TOTAL:	8	8	2	0	3	0	3	0	
						25.0%		0.0%		100.0%		

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APPENDIX B - CLASS 2 SUMMARY TABLES

RECORD OF REVISION			
REVISION	DATE	AFFECTED PAGES	REASON FOR REVISION
0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

ASME CODE CLASS 2
SUMMARY TABLES

CLASS 1 SECTION XI SUMMARY

TABLE A

[illegible] - PRESSURE RETAINING WELDS IN PRESSURE VESSELS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
C1.10	SHELL CIRCUMFERENTIAL WELDS		N/A									
C1.20	HEAD CIRCUMFERENTIAL WELDS		N/A									
C1.30	TUBESHEET-TO-SHELL WELDS	VOLUMETRIC	Emergency Condenser Heat Exchanger 111	2	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	Limited to one vessel in a group of vessels
		VOLUMETRIC	Emergency Condenser Heat Exchanger 11[illegible]	[illegible]	[illegible]	0 0.0%	0	0 0.0%	0	0 0.0%	0	Limited to one vessel in a group of vessels
		VOLUMETRIC	Emergency Condenser Heat Exchanger 121	2	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	Limited to one vessel in a group of vessels
		VOLUMETRIC	Emergency Condenser Heat Exchanger 122	2	2	1 50.0%	0	1 100.0%	0	0 100.0%	0	Limited to one vessel in a group of vessels
		VOLUMETRIC	Reactor Containment Spray Heat Exchanger 111	2	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	Limited to one vessel in a group of vessels
		VOLUMETRIC	Reactor Containment Spray Heat Exchanger 11[illegible]	2	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	Limited to one vessel in a group of vessels
		VOLUMETRIC	Reactor Containment Spray Heat Exchanger 121	2	0	0 0.0%	0	0 0.0%	0	0 0.0%	0	Limited to one vessel in a group of vessels
		VOLUMETRIC	Reactor Containment Spray Heat Exchanger 122	2	2	0 0.0%	0	0 0.0%	0	2 100.0%	0	Limited to one vessel in a group of vessels
			ITEM TOTAL:	16	4	1 25.0%	0	1 50.0%	0	2 100.0%	0	

TABLE B

- PRESSURE RETAINING WELDS IN PRESSURE VESSELS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
			CATEGORY TOTAL:	16	4	1 0	1 0	2 0	
						25.0%	0.0%	100.0%	

CLASS 2 SECTION XI SUMMARY

TABLE B

- PRESSURE RETAINING NOZZLE WELDS IN VESSELS

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER			2ND PER			3RD PER			COMMENTS
C2.11	NOZZLE-TO-SHELL (OR HEAD) WELD <= 1/2 IN. NOMINAL THICKNESS	SURFACE	Reactor Containment Spray Heat Exchanger 111	2	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	All nozzles at Terminal Ends of piping runs selected under C-F
		SURFACE	Reactor Containment Spray Heat Exchanger 112	2	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	All nozzles at Terminal Ends of piping runs selected under C-F
		SURFACE	Reactor Containment Spray Heat Exchanger 121	2	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	All nozzles at Terminal Ends of piping runs selected under C-F
		SURFACE	Reactor Containment Spray Heat Exchanger 122	2	2	0	0	0.0%	0	0	0.0%	2	0	100.0%	All nozzles at Terminal Ends of piping runs selected under C-F
			ITEM TOTAL:	8	2	0	0	0.0%	0	0	0.0%	2	0	100.0%	
[illegible]	NOZZLE-TO-SHELL (OR HEAD) WELD > 1/2 IN. NOMINAL THICKNESS WITHOUT REINFORCING PLATE	VOLUMETRIC SURFACE	Emergency Condenser Heat Exchanger 111	2	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	All nozzles at terminal ends of piping runs selected under Category C-F, Limited to one vessel
		VOLUMETRIC SURFACE	Emergency Condenser Heat Exchanger 112	2	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	All nozzles at terminal ends of piping runs selected under Category C-F, Limited to one vessel
		VOLUMETRIC	Emergency Condenser Heat Exchanger [illegible]	2	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	All nozzles at terminal ends of piping runs selected under Category C-F, Limited to one

CLASS 2 SECTION XI SUMMARY

TABLE B

[illegible] - PRESSURE RETAINING NOZZLE WELDS IN VESSELS

ASME SEC XI ITEM #.	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
C2.21												vessel
		VOLUMETRIC SURFACE	Emergency Condenser Heat Exchanger 122	2	2	1	0	1	0	0	0	All nozzles at terminal ends of piping runs selected under Category C-F, Limited to one vessel
						50.0%		100.0%		100.0%		
			ITEM TOTAL:	8	2	1	0	1	0	0	0	
						50.0%		100.0%		100.0%		
[illegible]	NOZZLE INSIDE RADIUS SECTION > 1/2 IN. NOMINAL THICKNESS WITHOUT REINFORCING PLATE		N/A									
C2.31	REINFORCING PLATE WELDS TO NOZZLE AND VESSEL > 1/2 IN. NOMINAL THICKNESS		N/A									
C2.32	NOZZLE-TO-SHELL (OR HEAD) WELDS WHEN INSIDE OF VESSEL IS ACCESSIBLE > 1/2 IN. NOMINAL THICKNESS		N/A									
C2.33	NOZZLE-TO-SHELL (OR HEAD) WELDS WHEN INSIDE OF WELD IS INACCESSIBLE > 1/2 IN. NOMINAL THICKNESS		N/A									
			CATEGORY TOTAL:	16	4	1	0	1	0	2	0	
						25.0%		0.0%		100.0%		

TABLE B

INTEGRAL ATTACHMENTS FOR VESSELS, PIPING, PUMPS, AND

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
C3.10	PRESSURE VESSELS-INTEGRALLY WELDED ATTACHMENTS	SURFACE	Reactor Containment Spray Heat Exchanger 111	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of All attachments, Code Case N-509
		SURFACE	Reactor Containment Spray Heat Exchanger 112	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of All attachments, Code Case N-509
		SURFACE	Reactor Containment Spray Heat Exchanger [illegible]	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of All attachments, Code Case N-509
		SURFACE	Reactor Containment Spray Heat Exchanger 122	[illegible]	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	10% of All attachments, Code Case N-509
			ITEM TOTAL:	8	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	
C3.20	PIPING-INTEGRALLY WELDED ATTACHMENTS	SURFACE	Control Rod Drive	24	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	10% of All attachments, Limited to those Category C-F and C-G, Code Case N-509
		SURFACE	Emergency Condenser Return	61	8	0 0 0.0%	0 0 0.0%	8 0 100.0%	10% of All attachments, Limited to those Category C-F and C-G, Code Case N-509
		SURFACE	Emergency Condenser Supply	18	4	4 0 100.0%	0 0 100.0%	0 0 100.0%	10% of All attachments, Limited to those Category C-F and C-G, Code Case N-509

TABLE B

- INTEGRAL ATTACHMENTS FOR VESSELS, PIPING, PUMPS, AND

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
		SURFACE	Main Steam	15	4	4 0 100.0%	0 0 100.0%	0 0 100.0%	10% of All attachments, Limited to those Category C-F and C-G, Code Case N-509
		SURFACE	Main Steam System	56	8	0 0 0.0%	8 0 100.0%	0 0 100.0%	10% of All attachments, Limited to those Category C-F and C-G, Code Case N-509
		SURFACE	Reactor Containment Spray	526	54	9 0 16.6%	25 0 62.9%	20 0 100.0%	10% of All attachments, Limited to those Category C-F and C-G, Code Case N-509
		SURFACE	Reactor Core Spray	331	26	13 0 50.0%	2 0 57.6%	11 0 100.0%	10% of All attachments, Limited to those Category C-F and C-G, Code Case N-509
			ITEM TOTAL:	1031	104	30 0 28.8%	35 0 62.5%	39 0 100.0%	
C3.30	PUMPS-INTEGRALLY WELDED ATTACHMENTS		N/A						
C3.40	VALVES-INTEGRALLY WELDED ATTACHMENTS		N/A						
			CATEGORY TOTAL:	1039	105	30 0 28.5%	35 0 61.9%	40 0 100.0%	

CLASS 2 SECTION XI SUMMARY

TABLE B

- PRESSURE RETAINING BOLTING GREATER THAN 2 INCHES IN

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
C4.10	PRESSURE VESSELS-BOLTS AND STUDS		N/A						
C4.20	PIPING-BOLTS AND STUDS		N/A						
C4.30	PUMPS-BOLTS AND STUDS		N/A						
C4.40	VALVES-BOLTS AND STUDS		N/A						
			CATEGORY TOTAL:	0	0	0 0	0 0	0 0	
						0.0%	0.0%	0.0%	

TABLE B

C-F-1 - PRESSURE RETAINING WELDS IN AUSTENITIC STAINLESS STEEL

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
C5.12	LONGITUDINAL WELDS > 3/8 IN. NOMINAL WALL THICKNESS FOR PIPING > NPS 4	VOLUMETRIC SURFACE	Emergency Condenser Return	54	15	7	0	3	0	5	0	2.5t at intersecting Circ. Welds selected for examination, Code Case N-524
						46.6%		66.6%		100.0%		
		VOLUMETRIC SURFACE	Emergency Condenser Supply	67	22	4	0	11	0	7	0	2.5t at intersecting Circ. Welds selected for examination, Code Case N-524
						18.1%		68.1%		100.0%		
			ITEM TOTAL:	121	37	11	0	14	0	12	0	
						29.7%		67.5%		100.0%		
C5.21	CIRCUMFERENTIAL WELDS > 1/5 IN. NOMINAL WALL THICKNESS FOR PIPING > NPS 2 AND < NPS 4		N/A									
C5.22	LONGITUDINAL WELDS > 1/5 IN. NOMINAL WALL THICKNESS FOR PIPING > NPS 2 AND < NPS 4		N/A									
C5.30	SOCKET WELDS		N/A									
C5.41	CIRCUMFERENTIAL PIPE BRANCH CONNECTIONS OF BRANCH PIPING > NPS 2		N/A									
C5.42	LONGITUDINAL PIPE BRANCH CONNECTIONS OF BRANCH PIPING > NPS 2		N/A									
C5.11	CIRCUMFERENTIAL PIPE WELDS > 3/8 IN. NOMINAL WALL THICKNESS FOR PIPING >NPS 4	VOLUMETRIC SURFACE	Emergency Condenser Return	31	8	4	0	2	0	2	0	7.5% but not less than 28 welds
						50.0%		75.0%		100.0%		
		VOLUMETRIC SURFACE	Emergency Condenser Supply	41	17	4	0	7	0	6	0	7.5% but not less than 28 welds
						23.5%		64.7%		100.0%		
			ITEM TOTAL:	72	25	8	0	9	0	8	0	
						32.0%		68.0%		100.0%		
			CATEGORY TOTAL:	193	62	19	0	23	0	20	0	
						30.6%		67.7%		100.0%		

TABLE B

[illegible]2 - PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
C5.51	CIRCUMFERENTIAL WELDS >3/8" NOMINAL WALL THICKNESS FOR PIPING >NPS 4	VOLUMETRIC SURFACE	Control Rod Drive	59	6	2	0	2	0	2	0	7.5% but not less than 28 welds
						33.3%		66.6%		100.0%		
		VOLUMETRIC SURFACE	Main Steam	30	3	1	0	1	0	1	0	7.5% but not less than 28 welds
						33.3%		66.6%		100.0%		
		VOLUMETRIC SURFACE	Main Steam System	49	6	2	0	2	0	2	0	7.5% but not less than 28 welds
						33.3%		66.6%		100.0%		
		VOLUMETRIC SURFACE	Reactor Containment Spray	342	27	7	0	8	0	12	0	7.5% but not less than 28 welds
						25.9%		55.5%		100.0%		
		VOLUMETRIC SURFACE	Reactor Containment Spray Pump 111	2	0	0	0	0	0	0	0	7.5% but not less than 28 welds
						0.0%		0.0%		0.0%		
		VOLUMETRIC SURFACE	Reactor Containment Spray Pump 112	2	0	0	0	0	0	0	0	7.5% but not less than 28 welds
						0.0%		0.0%		0.0%		
		VOLUMETRIC SURFACE	Reactor Containment Spray Pump 121	2	0	0	0	0	0	0	0	7.5% but not less than 28 welds
						0.0%		0.0%		0.0%		
		VOLUMETRIC SURFACE	Reactor Containment Spray Pump [illegible]	2	0	0	0	0	0	0	0	7.5% but not less than 28 welds
						0.0%		0.0%		0.0%		
		VOLUMETRIC SURFACE	Reactor Core Spray	225	21	8	0	7	0	6	0	7.5% but not less than 28 welds
						38.0%		71.4%		100.0%		

CLASS 2 SECTION XI SUMMARY

TABLE B

[illegible]2 - PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
C5.51									
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 111	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	7.5% but not less than 28 welds
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 11[illegible]	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	7.5% but not less than 28 welds
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 121	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	7.5% but not less than 28 welds
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 122	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	7.5% but not less than 28 welds
			ITEM TOTAL:	721	63	20 0 31.7%	20 0 63.4%	23 0 100.0%	
C5.52	LONGITUDINAL WELDS >3/8" NOMINAL WALL THICKNESS FOR PIPING >NPS 4	VOLUMETRIC SURFACE	Reactor Containment Spray Pump 111	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Containment Spray Pump 112	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Containment Spray Pump 121	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Containment Spray Pump 122	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524

2 - PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 111	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 112	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 121	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524
		VOLUMETRIC SURFACE	Reactor Core Spray Pump 122	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	2.5t at intersecting Circ. welds, Code Case N-524
			ITEM TOTAL:	16	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		N/A						
C5.62	LONGITUDINAL WELDS > 1/5" NOMINAL WALL THICKNESS FOR PIPING > NPS 2 AND < NPS 4		N/A						
C5.70	SOCKET WELDS		N/A						
C5.81	CIRCUMFERENTIAL PIPE BRANCH CONNECTIONS OF BRANCH PIPING > NPS 2	SURFACE	Main Steam System	16	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	7.5%, But not less than 28 welds
		SURFACE	Reactor Containment Spray	6	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	7.5%, But not less than 28 welds
		SURFACE	Reactor Containment Spray Pump 111	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	7.5%, But not less than 28 welds

CLASS 2 SECTION XI SUMMARY

TABLE B

2 - PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
		SURFACE	Reactor Containment Spray Pump 112	2	0	0	0	0	0	0	0	7.5%, But not less than 28 welds
						0.0%		0.0%		0.0%		
		SURFACE	Reactor Containment Spray Pump 121	2	1	0	0	0	0	1	0	7.5%, But not less than 28 welds
						0.0%		0.0%		100.0%		
		SURFACE	Reactor Containment Spray Pump 122	2	0	0	0	0	0	0	0	7.5%, But not less than 28 welds
						0.0%		0.0%		0.0%		
		SURFACE	Reactor Core Spray Pump 111	2	0	0	0	0	0	0	0	7.5%, But not less than 28 welds
						0.0%		0.0%		0.0%		
		SURFACE	Reactor Core Spray Pump 112	2	0	0	0	0	0	0	0	7.5%, But not less than 28 welds
						0.0%		0.0%		0.0%		
		SURFACE	Reactor Core Spray Pump 121	2	0	0	0	0	0	0	0	7.5%, But not less than 28 welds
						0.0%		0.0%		0.0%		
		SURFACE	Reactor Core Spray Pump 122	2	0	0	0	0	0	0	0	7.5%, But not less than 28 welds
						0.0%		0.0%		0.0%		
			ITEM TOTAL:	38	3	1	0	1	0	1	0	
						33.3%		66.6%		100.0%		
C5.82	LONGITUDINAL PIPE BRANCH CONNECTION OF BRANCH PIPING > NPS 2		N/A									
			CATEGORY TOTAL:	775	66	21	0	21	0	24	0	
						31.8%		63.6%		100.0%		

CLASS 2 SECTION XI SUMMARY

TABLE B

- PRESSURE RETAINING WELDS IN PUMPS AND VALVES

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER			2ND PER			3RD PER			COMMENTS
C6.10	PUMP CASING WELDS	SURFACE	Reactor Containment Spray Pump 111	10	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	Only one pump among each group of pump
		SURFACE	Reactor Containment Spray Pump 112	10	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	Only one pump among each group of pump
		SURFACE	Reactor Containment Spray Pump 121	10	5	1	0	20.0%	4	0	100.0%	0	0	100.0%	Only one pump among each group of pump
		SURFACE	Reactor Containment Spray Pump 122	10	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	Only one pump among each group of pump
		SURFACE	Reactor Core Spray Pump 111	10	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	Only one pump among each group of pump
		SURFACE	Reactor Core Spray Pump 112	10	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	Only one pump among each group of pump
		SURFACE	Reactor Core Spray Pump 121	10	4	0	0	0.0%	0	0	0.0%	4	0	100.0%	Only one pump among each group of pump
		SURFACE	Reactor Core Spray Pump 122	10	0	0	0	0.0%	0	0	0.0%	0	0	0.0%	Only one pump among each group of pump
			ITEM TOTAL:	80	9	1	0	11.1%	4	0	55.5%	4	0	100.0%	
C6.20	VALVE CASING WELDS		N/A												
			CATEGORY TOTAL:	80	9	1	0	11.1%	4	0	0.0%	4	0	100.0%.	

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APPENDIX C - CLASS 3 SUMMARY TABLES

RECORD OF REVISION

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0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

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SUMMARY TABLES

CLASS 2 SECTION XI SUMMARY

TABLE B

- INTEGRAL ATTACHMENTS FOR CLASS 3 VESSELS, PIPING, PUMPS,

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
D1.10	PRESSURE VESSEL INTEGRALLY WELDED ATTACHMENTS	VISUAL	Emergency Condenser Heat Exchanger 111	3	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Emergency Condenser Heat Exchanger 112	3	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Emergency Condenser Heat Exchanger [illegible]	3	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Emergency Condenser Heat Exchanger 122	3	3	0 0 0.0%	0 0 0.0%	3 0 100.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Reactor Building Closed Loop Cooling Heat Exchange	6	2	2 0 100.0%	0 0 100.0%	0 0 100.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Shutdown Cooling Water Heat Exchanger 11	2	2	0 0 0.0%	0 0 0.0%	2 0 100.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Shutdown Cooling Water Heat Exchanger [illegible]	[illegible]	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Shutdown Cooling Water Heat Exchanger 13	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	100% of weld length, Code Case N-509, 10% required
		VISUAL	Spent Fuel Pool Cooling Heat Exchanger 11	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	100% of weld length, Code Case N-509, 10%

- INTEGRAL ATTACHMENTS FOR CLASS 3 VESSELS, PIPING, PUMPS,

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
D1.10												required
		VISUAL	Spent Fuel Pool Cooling Heat Exchanger 12	2	2	0	0	0	0	2	0	100% of weld length, Code Case N-509, 10% required
						0.0%		0.0%		100.0%		
			ITEM TOTAL:	28	9	2	0	0	0	7	0	
						22.2%		22.2%		100.0%		
D1.20	PIPING INTEGRALLY WELDED ATTACHMENTS	VISUAL	Emergency Service Water	29	2	0	0	0	0	2	0	100% of weld length, 10% of all integral attachments, Code Case N-509
						0.0%		0.0%		100.0%		
		VISUAL	Reactor Building Closed Loop Cooling	53	7	0	0	2	0	5	0	100% of weld length, 10% of all integral attachments, Code Case N-509
						0.0%		28.5%		100.0%		
		VISUAL	Reactor Containment Spray	219	15	15	0	0	0	0	0	100% of weld length, 10% of all integral attachments, Code Case N-509
						100.0%		100.0%		100.0%		
		VISUAL	Spent Fuel Pool Cooling	158	20	0	0	16	0	4	0	100% of weld length, 10% of all integral attachments, Code Case N-509
						0.0%		80.0%		100.0%		
			ITEM TOTAL:	459	44	15	0	18	0	11	0	
						34.0%		75.0%		100.0%		
D1.30	PUMPS INTEGRALLY WELDED ATTACHMENTS		N/A									
D1.40	VALVES INTEGRALLY WELDED ATTACHMENTS		N/A									
			CATEGORY TOTAL:	487	53	17	0	18	0	18	0	
						32.0%		66.0%		100.0%		

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APPENDIX D - CLASS 1, 2, 3 COMPONENT SUPPORT SUMMARY TABLES

RECORD OF REVISION

REVISION	DATE	AFFECTED PAGES	REASON FOR REVISION
0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

ASME CODE CLASS 1, 2, 3 COMPONENT SUPPORT SUMMARY TABLES

- Class 1 Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
F1.10	25% of Class 1	VISUAL	Control Rod Drive	6	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Emergency Condenser Return	15	3	1 0 33.3%	0 0 33.3%	2 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Feedwater System	18	5	1 0 20.0%	2 0 60.0%	2 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Liquid Poison	7	2	1 0 50.0%	1 0 100.0%	0 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Main Steam System	16	4	1 0 25.0%	1 0 50.0%	2 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Clean Up	18	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Core Spray	27	6	2 0 33.3%	2 0 66.6%	2 0 100.0%	Categorized to identify support

- Class 1 Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
F1.10									types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Drain	6	2	1 0 50.0%	0 0 50.0%	1 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Head Vent	10	2	1 0 50.0%	1 0 100.0%	0 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Instrumentation	4	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Recirculation Discharge	30	8	2 0 25.0%	4 0 75.0%	2 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Recirculation Suction	25	8	2 0 25.0%	2 0 50.0%	4 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1
		VISUAL	Reactor Shutdown Cooling	8	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	Categorized to identify support types by component function A, B, C, etc, Code Case N-491-1

TABLE D

- Class 1 Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
			ITEM TOTAL:	190	46	14 0 30.4%	13 0 58.6%	19 0 100.0%	
F1.20	15% of Class 2 Supports	VISUAL	Control Rod Drive	32	4	3 0 75.0%	0 0 75.0%	1 0 100.0%	Categorized to identify support types by component function A, B, C, etc.Code Case N-491-1
		VISUAL	Emergency Condenser Return	31	3	0 0 0.0%	1 0 33.3%	2 0 100.0%	Categorized to identify support types by component function A, B, C, etc.Code Case N-491-1
		VISUAL	Emergency Condenser Supply	32	3	3 0 100.0%	0 0 100.0%	0 0 100.0%	Categorized to identify support types by component function A, B, C, etc.Code Case N-491-1
		VISUAL	Main Steam	13	2	2 0 100.0%	0 0 100.0%	0 0 100.0%	Categorized to identify support types by component function A, B, C, etc.Code Case N-491-1
		VISUAL	Main Steam System	34	3	0 0 0.0%	3 0 100.0%	0 0 100.0%	Categorized to identify support types by component function A, B, C, etc.Code Case N-491-1
		VISUAL	Reactor Containment	178	28	14 0 50.0%	9 0 82.1%	5 0 100.0%	Categorized to identify support

- Class 2 Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
F1.20			Spray						types by component function A, B, C, etc.Code Case N-491-1
		VISUAL	Reactor Core Spray	113	22	7 0 31.8%	6 0 59.0%	9 0 100.0%	Categorized to identify support types by component function A, B, C, etc.Code Case N-491-1
			ITEM TOTAL:	433	65	29 0 44.6%	19 0 73.8%	17 0 100.0%	
F1.30	10% of Class 3 Supports	VISUAL	Emergency Service Water	57	6	3 0 50.0%	1 0 66.6%	2 0 100.0%	Categorized to identify types by component support function A, B, C, etc.Code Case N-491-1
		VISUAL	Reactor Building Closed Loop Cooling	214	19	0 0 0.0%	4 0 21.0%	15 0 100.0%	Categorized to identify types by component support function A, B, C, etc.Code Case N-491-1
		VISUAL	Reactor Containment Spray	140	15	10 0 66.6%	5 0 100.0%	0 0 100.0%	Categorized to identify types by component support function A, B, C, etc.Code Case N-491-1
		VISUAL	Spent Fuel Pool Cooling	2	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Categorized to identify types by component support function A, B, C, etc.Code Case N-491-1

- Class 3 Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
F1.30												Categorized to identify types by component support function A, B, C, etc.Code Case N-491-1
		VISUAL	Spent Fuel Pool Cooling System	5	1	0	0	0	0	1	0	Cátegorized to identify types by component support function A, B, C, etc.Code Case N-491-1
						0.0%		0.0%		100.0%		
			ITEM TOTAL:	503	51	14	0	17	0	20	0	
						27.4%		60.7%		100.0%		
F1.40	100% of the supports, For multiple components, only one of multiple components required	VISUAL	Emergency Condenser Heat Exchanger 111	1	0	0	0	0	0	0	0	Code Case N-491-1
						0.0%		0.0%		0.0%		
		VISUAL	Emergency Condenser Heat Exchanger 112	1	0	0	0	0	0	0	0	Code Case N-491-1
						0.0%		0.0%		0.0%		
		VISUAL	Emergency Condenser Heat Exchanger 121	1	0	0	0	0	0	0	0	Code Case N-491-1
						0.0%		0.0%		0.0%		
		VISUAL	Emergency Condenser Heat Exchanger 122	1	1	0	0	0	0	1	0	Code Case N-491-1
						0.0%		0.0%		100.0%		
		VISUAL	Emergency Service Water Pump 11	1	1	0	0	0	0	1	0	Code Case N-491-1
						0.0%		0.0%		100.0%		
		VISUAL	Emergency Service Water Pump 12	1	0	0	0	0	0	0	0	Code Case N-491-1
						0.0%		0.0%		0.0%		

TABLE F

[illegible] - Supports Other Than Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
		VISUAL	Main Steam	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Building Closed Loop Cooling Heat Exchange	3	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Building Closed Loop Cooling MU Tank	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Building Closed Loop Cooling Pump	3	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Heat Exchanger 111	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Heat Exchanger 112	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Heat Exchanger 121	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Heat Exchanger 1[illegible]	1	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Pump 111	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1

- Supports Other Than Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
F1.40									
		VISUAL	Reactor Containment Spray Pump 112	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Pump 121	1	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Pump 122	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Raw Water Pump 111	1	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Raw Water Pump 112	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Raw Water Pump 121	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Containment Spray Raw Water Pump 122	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Core Spray Pump 111	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Core Spray Pump 112	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1

TABLE E

- Supports Other Than Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
F1.40									
		VISUAL	Reactor Core Spray Pump 121	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Core Spray Pump 122	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Core Spray Topping Pump 111	1	1	1 0 100.0%	0 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Core Spray Topping Pump 112	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Core Spray Topping Pump 121	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Core Spray Topping Pump [illegible]	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Recirculation Pump 11	7	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Recirculation Pump 12	7	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1

CLASS 1 SECTION XI SUMMARY

TABLE D

Supports Other Than Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER	2ND PER	3RD PER	COMMENTS
F1.40			Reactor Recirculation Pump 13						
		VISUAL	Reactor Recirculation Pump 14	7	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Reactor Recirculation Pump 15	7	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Reactor Vessel Supports	9	9	2 0 22.2%	2 0 44.4%	5 0 100.0%	Code Case N-491-1
		VISUAL	Shutdown Cooling Water Heat Exchanger 11	1	1	0 0 0.0%	0 0 0.0%	1 0 100.0%	Code Case N-491-1
		VISUAL	Shutdown Cooling Water Heat Exchanger 12	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Shutdown Cooling Water Heat Exchanger 13	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1
		VISUAL	Spent Fuel Pool Cooling Filter 11	1	1	0 0 0.0%	1 0 100.0%	0 0 100.0%	Code Case N-491-1
		VISUAL	Spent Fuel Pool Cooling Filter 12	1	0	0 0 0.0%	0 0 0.0%	0 0 0.0%	Code Case N-491-1

TABLE F

[illegible] Supports Other Than Piping Supports

ASME SEC XI ITEM #	ITEM DESCRIPTION	EXAM METHOD	SYSTEM DESCRIPTION	# OF COMP	NO. REQ	NO. OF COMPONENTS SCHEDULED/COMPLETED 1ST PER		2ND PER		3RD PER		COMMENTS
		VISUAL	Spent Fuel Pool [illegible] Heat Exchanger 11	1	0	0	0	0	0	0	0	Code Case N-491-1
						0.0%		0.0%		0.0%		
		VISUAL	Spent Fuel Pool Cooling Heat Exchanger 12	1	1	0	0	1	0	0	0	Code Case N-491-1
						0.0%		100.0%		100.0%		
		VISUAL	Spent Fuel Pool Cooling Pump 11	1	1	0	0	0	0	1	0	Code Case N-491-1
						0.0%		0.0%		100.0%		
		VISUAL	Spent Fuel Pool Cooling Pump 12	1	0	0	0	0	0	0	0	Code Case N-491-1
						0.0%		0.0%		0.0%		
		VISUAL	[illegible]	[illegible]	1	0	0	1	0	0	0	Code Case N-491-1
						[illegible]		100.0%		100.0%		
			ITEM TOTAL:	89	26	6	0	8	0	12	0	
						23.0%		53.8%		100.0%		
			CATEGORY TOTAL:	1215	188	63	0	57	0	68	0	
						33.5%		63.8%		100.0%		

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APPENDIX E - CODE BOUNDARY DIAGRAMS

RECORD OF REVISION			
REVISION	DATE	AFFECTED PAGES	REASON FOR REVISION
0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

CODE BOUNDARY CLASSIFICATION BOUNDARY DIAGRAMS

The NMP1 Code Boundary Classification Diagrams identifying Quality Group A, B and C (ASME Code Class 1, 2 and 3) systems are described below.

CODE BOUNDARY DIAGRAM LISTING	
Boundary Diagram Number	**System Title**
F-63002-C	Main Steam and HP Turbine
F-63003-C	Condensate Flow
F-63005-C	High Pressure FW Flow
F-63006-C	Drywell and Torus Isolation Valves
F-63007-C	Reactor Core Spray
F-63008-C	Spent Fuel Storage Pool Filter & Cooling
F-63009-C	Reactor Cleanup System
F-63011-C	Instrument Air
F-63012-C	Reactor Containment Spray
F-63013-C	Reactor Building Heat and Cooling
F-63014-C	Drywell & Torus Inert Gas & Cooling
F-63015-C	Reactor vessel Instrumentation
F-63016-C	Control Rod Drive
F-63017-C	Emergency Cooling System
F-63018-C	Reactor Shutdown Cooling
F-63019-C	Reactor Liquid Poison System
F-63020-C	Reactor Recirculation Loops
F-63021-C	Turbine Building Heating & Cooling
F-63022-C	Service Water, Closed Loop Cooling
F-63026-C	Diesel Generator Air, Water, Oil & Fuel
F-63027-C	Service Water
F-63035-C	Resin Transfer Regeneration
F-63036-C	Sealing Water

CODE BOUNDARY DIAGRAM LISTING	
Boundary Diagram Number	**System Title**
F-63041-C	Sampling
F-63045-C	Waste Disposal
F-63046-C	Air Conditioning
F-63047-C	Heating, Ventilating & Air Conditioning
F-63048-C	Condensate Transfer

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APPENDIX F - RELIEF REQUESTS

RECORD OF REVISION			
REVISION	DATE	AFFECTED PAGES	REASON FOR REVISION
0	September 27, 1999	Entire Document	Updated Inservice Inspection Program Plan for the 3RD Ten Year Inservice Inspection Interval

Relief Req. No.	System or Component	Exam Cat.	Exam Item No.	Summary of Request for Relief	Proposed Alternatives	Relief Request Status
ISI-1	Reactor Pressure Vessel	B-A	B1.11 B1.12	Relief is requested for permanent relief from examining RPV Circ. Welds	NMPC proposes to perform examination as defined in the Relief Request	Granted TAC MA4383
ISI-2	Reactor Pressure Vessel	B-A	B1.21 B1.22 B1.30 B1.40	Relief is requested from the performing 100% of weld length	Perform exams to the extent practical	
ISI-3	Reactor Pressure Vessel	B-D	B3.90 B3.100	Request Relief from performing 100% of CRV	Perform exams to the extent practical	
ISI-4	Reactor Pressure Vessel	B-A	B1.30 B1.12	Relief is requested from IWB-2420(b) reexamination requirements	NMPC proposes to utilize ASME Code Case N-526, "Alternative Requirements for Successive Inspections of Class 1 and 2 Vessels"	
ISI-5	Reactor Pressure vessels	B-K	B10.10	Relief is requested from performing 100% of weld length	NMPC proposes to perform additional exam per Relief	
ISI-6	Reactor Pressure vessel	B-O	B14.10	Relief is requested from performing 100% of CRA	NMPC proposes to perform additional exam per Relief Request	
ISI-7	Reactor Containment Spray & Reactor Core Spray Pumps	C-G	C6.10	Relief is requested from performing examination of 100% welds on one pump among group of pumps	Perform examinations to the extent practical from the outside surface, and from the inside when disassembled	

CLASS 1, 2 AND 3 RELIEF REQUEST SUMMARY						
Relief Req. No.	System or Component	Exam Cat.	Exam Item No.	Summary of Request for Relief	Proposed Alternatives	Relief Request Status
ISI-8	ISI Summary Report IWA-6000	N/A	N/A	Relief is requested from Article IWA-6000	NMPC proposes to utilize ASME Code Case N-532, "Alternative Requirements to Repair and replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000"	
ISI-9	ASME Code Class 1, 2 and 3 Snubbers	N/A	N/A	Relief is requested from Section 2.3.2.2 and 2.3.2.3 of OM-1988, Part 4 and Article IWF	NMPC proposes to utilize USNRC Generic Letter 90-09 for intervals and sampling rates, perform exams in accordance with Plant Tech Specs	
ISI-10	Article IWA-4000	N/A	N/A	Relief is requested from the requirements of Article IWA-4000, IWA-4400	NMPC proposes to utilize ASME Code Case N-573, "Transfer of Procedure Qualification Records between Owners"	
ISI-11	Reactor Vessel Closure Head Nuts	B-G-1	B6.10	Relief is requested from performing 100% surface examination of 64 RVCH Nuts	NMPC proposes to utilize the Visual VT-1 examination criteria of the 1989 Addenda	
ISI-12	Quality Group A, ASME Code Class 1 Augmented Examinations	N/A	N/A	Relief is requested from performing full volumetric and surface examination of 21 nonconforming service sensitive piping welds	NMPC proposes to utilize Vol and Surface exams to the extent practical and VT-2 each outage for evidence of leakage	

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-1

COMPONENT IDENTIFICATION

System: Reactor Pressure Vessel

Class: Quality Group A, ASME Code Class 1

Component Description: Reactor Pressure Vessel Shell Welds

B. ASME SECTION XI EXAMINATION REQUIREMENTS

ASME Section XI, Table IWB-2500-1, Examination Category B-A, "Pressure Retaining Welds in Reactor Vessel, Examination Item Number B1.10, "Shell Welds"

Circumferential Welds	Axial Welds	
RVWD-100	RVWD-130	RVWD-131
RVWD-101	RVWD-132	RVWD-133
RVWD-137	RVWD-134	RVWD-135
RVWD-138	RVWD-139	RVWD-140
	RVWD-141	RVWD-142
	RVWD-143	RVWD-144

10CFR50.55a(g)(6)(ii)(A)(2) states that all licensees shall augment their reactor vessel inservice inspection program by implementing the examination requirements for Reactor Pressure Vessel shell welds specified in Code Item No. B1.10 of Examination Category B-A, Pressure Retaining Welds in Reactor Vessel, Table IWB-2500-1 of Subsection IWB of the 1989 Edition of Section XI, Division 1, of the ASME Boiler and Pressure Vessel Code,and subject to the conditions specified in 10CFR50.55a(g)(6)(ii)(A)(3) and (4). As stated in 10CFR50.55a, for the purposes of this augmented examination, essentially 100 percent as used in Table IWB-2500-1 means more than 90 percent of the required examination volume for each weld. Additionally, 10CFR50.55a(g)(6)(ii)(A)(5) requires licensees that are unable to completely satisfy the augmented Reactor Vessel shell weld examination requirement to submit information to the United States Nuclear Regulatory Commission (USNRC) to support the determination, and propose an alternative to the extent necessary as to provide an acceptable level of quality and safety.

C. RELIEF REQUESTED

Pursuant to USNRC Generic Letter 98-05, "Boiling Water Licensees Use of the BWRVIP-05 Report to Request Relief from Augmented Examination Requirements on Reactor Pressure Vessel Circumferential Shell Welds." NMPC requests permanent relief from the inservice inspection requirements of 10CFR50.55a(g) for volumetric examination of circumferential reactor pressure vessel (RPV) welds (ASME Section XI, Table IWB-2500-1, Examination Category B-A, Examination Item Number B1.11.

D. BASIS FOR RELIEF

1. ELIMINATION OF REACTOR PRESSURE VESSEL CIRCUMFERENTIAL WELDS FROM INSPECTION

On November 10, 1998, the USNRC issued Generic Letter 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" The Letter stated that BWR licensees may seek

permanent relief from performing examinations of the RPV circumferential shell welds for the duration of the original operating license This determination was supported by USNRC staffs Safety Evaluation Report to the BWRVIP, dated July 28, 1998 which would require, on a plant specific basis, licensees to demonstrate that: (1) at the end of a units license the RPV circumferential welds will continue to satisfy the limiting conditional failure probability, and (2) licensees have implemented operator training and established procedures that limit the frequency of beyond design basis low temperature over-pressure events (LTOP) to the limits specified in usNRC Safety Evaluation Report. The plant specific evaluation against both criteria is provided below.

Demonstrate at the end of license, the circumferential welds will satisfy the limiting conditional failure probability for circumferential welds in the USNRC staffs July 28,1998, safety evaluation to the BWRVIP-05 report.

Table 1 illustrates that Nine Mile Point Unit 1(NMP1) has conservatism in comparison to the USNRC Final Evaluation of BWRVIP-05 Limiting Plant Specific Analysis. The chemistry factor, adjustment of the reference temperature (ΔRT_{NDT}),and mean RT_{NDT}, are calculated consistent with the guidelines of USNRC Regulatory Guide 1.99, Rev. 2. The data presented for NMP1 in the BWRVIP response to the USNRC Request For Additional Information (RAI) on BWRVIP-05 is also shown in Table 1.The fluence value on Table 1 bounds the highest fluence beltline circumferential weld. The maximum Cu% and Ni% variability from the most current data available is also bounded.

TABLE 1

PARAMETER DESCRIPTION	NMP1 COMPARATIVE PARAMETERS AT 32 EFPY (BOUNDING CIRCUMFERENTIAL WELD)	USNRC LIMITING PLANT SPECIFIC ANALYSIS PARAMETERS AT 32 EFPY SE TABLE 2.6-4	
		SE "VIP"	SE "CEOG"
Fluence, n/cm^2	2.21 x10^{18}	2.0 x10^{18}	2.0 x10^{18}
Initial RT_{NDT} °F	-50	0	0
Chemistry Factor	112	151.7	172.2
Cu:%	0.22*	0.13	0.183
Ni%	0.20*	0.71	0.704
Ä RT_{NDT} °F	66.5	86.4	98.1
Mean RT_{NDT} °F	16.5	86.4	98.1

Notes: SE = USNRC Safety Evaluation, entitled, "Final Safety Evaluation of the BWR Vessel and Internals Project BWRVIP-05 Report (TAC NO. M93925), "dated July 28, 1998

* = The Cu% and Ni% bounds the maximum GL 92-01 NMP1 weld chemistry variability as documented in NMPC's September 4, 1998 RAI response to TAC NO. MA1200.

As shown above, the impact of irradiation results in lower plant-specific mean RT_{NDT} for the NMP1 circumferential weld material as compared to that for any of the Staff's plant-specific analyses which were performed for the CE fabricated RPV's with the highest adjusted reference temperatures. Comparison of the NMP1 specific data and the data used in the USNRC Final Safety Evaluation indicates the difference is the combined effects of the Ni% and Cu% on the Chemistry Factor, which is by itself bounded by the USNRC Independent Assessment, and the initial RT_{NDT}. Therefore, the limiting plant-specific conditional probability of failure P(FIE), determined by the Staff, bounds the NMP1 case through the projected end of license.

Thus the BWRVIP specific results relative to NMP1 as presented in BWRVIP-05 and subsequent RAI responses are consistent with those in the USNRC Independent Assessment. Both analyses conclude that

the failure probability associated with the circumferential welds is extremely small, and that it is orders of magnitude less than that for axial welds. Therefore, the NMP1 circumferential weld satisfies, at the end of license, the limiting conditional failure probability for circumferential welds in the USNRC Staff's July 28, 1998, Safety Evaluation.

Demonstrate that licensees have implemented operator training and established procedures that limit the frequency of cold over-pressure events to the amount specified in NRC Safety Evaluation Report to the BWRVIP, dated July 28,1998

The USNRC staff indicated that the potential for ,and consequences of, non-design basis events not discussed in the BWRVIP-05 report should be addressed. In particular, the USNRC stated that non-design, low temperature over-pressure transients (LTOP) should be considered. The USNRC further went on to describe several types of events that could be precursors to an LTOP. The BWRVIP provided a response to this issue concluding that Condensate and Control Rod Drive (CRD) pumps could cause such a condition leading to an LTOP event. This was summarized in the USNRC Safety Evaluation of BWRVIP-05.

NMPC has in place procedures which monitor and control reactor pressure, temperature, and water inventory during all aspects of cold shutdown minimizing the likelihood of an RPV LTOP event. Additionally, these procedures are reinforced through NMPC's reactor operator training program.

The RPV Leakage and Hydrostatic pressure test procedures used at NMP1, have sufficient procedural guidance to prevent LTOP. The leakage test is performed at the conclusion of each refueling outage, while the hydrostatic test is performed once every ten years. These pressure tests are infrequently-performed, complex tasks, and the test procedures are controlled as Special Plant Evolutions. As such, a requirement is included in the procedures for an extensive pre-job briefing to be conducted with all essential personnel including Operations management. The briefing details the anticipated testing evolution with special emphasis on conservative decision making, plant safety awareness, lessons learned from similar in-house or industry operating experiences, the importance of open communications and finally the process in which the test would be aborted if plant systems responded in an adverse manner. Vessel pressure and temperature are required to be monitored throughout the tests to ensure compliance with the plant Technical Specification pressure-temperature curve. Also, the procedures require the designation of a "Principal Test Engineer" for the duration of the test who is a single point of accountability, responsible for the coordination of testing from initiation to closure, and maintaining operations and plant management cognizant of the test status.

With regard to inadvertent system injection resulting in an LTOP condition, NMP1 high pressure make-up system, (I.E., THE High Pressure Coolant Injection (HPCI)) as well as the normal Feedwater system are interconnected. The portion of the system for HPCI operation is comprised of two (2) motor driven condensate pumps, feedwater booster and feedwater pumps. HPCI is a mode of operation of the Condensate and Feedwater systems rather than an independent, stand alone system. As such, the HPCI system contains only I&C components as its own dedicated equipment. HPCI initiation is prompted by the Reactor Protection System under the following conditions: (1) a turbine trip, or (2) low reactor water level. During shutdown of the unit, the associated booster and feedwater pumps in the system are secured in accordance with operating procedures. Equipment malfunction or inappropriate operational action would be necessary to cause inadvertent system operation.

During normal cold shutdown conditions, with the RPV head installed, RPV level and pressure are controlled with the CRD System, Condensate Feedwater System, and Reactor Water Cleanup (RWCU) systems using a "feed and bleed" process. The RPV is not taken solid during these times, and plant procedures require opening of the head vent valves after the reactor has been depressurized to approximately 15 psig.

The Liquid Poison System is another high pressure water source to the RPV, however, there are no means of automatic system activation. System injection requires an operator to manually reposition a key-locked control switch to start the system from the Control Room. The system may also be operated from a remote local test station.. The only injection path to the RPV is through two explosive actuated injection valves that

are interlocked with the key-locked switch in the Control Room. Local testing of the pumps uses demineralized water from a test tank and is a closed test loop. The injection rate for each pump is approximately 30 gpm, which would give the operator sufficient time to control reactor pressure.

Procedural controls are in place to respond to an unexplained rise in reactor pressure which could result from a spurious activation of an injection system. Actions specified include determination and isolation of the pressure source, verification of reactor head vents and/or MSIVs open and, as necessary, relieving reactor pressure using available plant equipment (e.g., electromagnetic relief valves, reactor water cleanup and reactor bottom drain).

During normal cold shutdown conditions, reactor water level, temperature are maintained within established ranges in accordance with operating procedures. The Operations manual governing Control Room activities requires that the Control Room operators frequently monitor for indications and alarms to detect problems and abnormalities as early as possible. An Operations procedure also requires that the control room supervisor be notified immediately of any change or abnormality in plant indications and controls. Furthermore, reactor water level and temperature operating bands and changes thereto are established under the direction of the Station Shift Supervisor. Therefore, any deviations in reactor -water level or temperature from a specified band will be identified and corrected. Finally, plant conditions and on-going activities are discussed during each shift turnover. This ensures that on-coming operators are cognizant of activities that could adversely affect reactor level, pressure, or temperature.

Plant specific procedures have been developed to provide operator guidance regarding compliance with the plant Technical Specifications and RPV pressure-temperature curve limits. Additionally, operators receive training on RPV brittle fracture and the relation of these pressure-temperature curve limits.

During plant outages, NMP1 work control processes ensure that the outage schedule and changes to the schedule receive a thorough shutdown risk assessment review to ensure defense-in-depth is maintained. Work is coordinated through the Work Control Center which provides an additional level of Operations oversight. In the Control Room, the Station Shift Supervisor is required, by procedure, to maintain cognizance of any activity that could potentially affect reactor safety during refueling outages. Expected plant responses and contingency actions to address unexpected conditions, that may be encountered, are required to be evaluated as stated in the administrative controls for risk management and management of outages.

As discussed above, NMPC has implemented procedural controls and training to minimize the probality of an LTOP event. Accordingly, the above information and the supporting technical documentation contained in the BWRVIP-05 report and USNRC Safety Evaluation provide a basis for excluding RPV circumferential welds from the augmented examination requirements of 10CFR50.55a(g) and ASME Section XI.

2. WELD ACCESSIBILITY

NMP1, a BWR/2, has an RPV that was designed and fabricated to the rules of ASME Sections I and VIII, including Nuclear Code Case 1270N and 1273N. Additionally, General Electric's Specification for design and fabrication included additional requirements for materials and inspection that were similar to ASME Section III. Early vintage plants of this type were designed, fabricated and erected prior to the examination and inspection requirements of ASME Section XI. Specific ultrasonic (UT) examination criteria was not required by ASME I, III, or VIII for preservice inspection of the vessel and not factored into the plant design, hence external access to the RPV axial shell welds is constrained due to inadequate clearances between the bioshield wall and vessel insulation.

The NMP1 examination plan requires examination of 100% of all accessible regions of the RPV axial welds. The ability to inspect 100% of the axial welds will be limited, in some cases, due to physical constraints of the RPV internal vessel design and arrangement of internal components. An internal vessel accessibility study of the RPV was performed by General Electric to determine the inspectability of the RPV axial shell welds and to obtain clearance measurements for the GERIS-2000. Several internal vessel components will

limit a 100% ID UT examination including interference from the Feedwater Sparger, Specimen Brackets, Vibration Brackets, the Shroud Support Baffle Plate, and Shroud Repair Tie Rod Assembly. Even with these limitations, the overall projected percentage of effective weld examination coverage in the beltline region is approximately 92%. Tables 2 and 3 provide an illustration of the anticipated examination coverage of the axial welds. Included in Table 3 is a column identifying the specific limitation precluding essentially 100% of the axial shell welds. A drawing also provides the location of welds in relation to the reactor pressure vessel.

NMPC concluded that permanent deferral of the examination of the RPV circumferential shell welds for the life of the operating license and the reduced examination coverage of the axial welds is justified and presents an acceptable level of quality and safety to satisfy the requirements of 10CFR50.55a(a)(3)(i), 10CFR50.55a(a)(3)(ii) and 10CFR50.55a(g)(6)(ii)(A)(5).

E. ALTERNATIVE EXAMINATIONS

The proposed examinations are an alternative to the augmented examinations required for RPV shell welds specified in 10CFR50.55a(g)(6)(ii)(A)(2), and an alternative to the inservice inspection requirements of the ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition (Table IWB-2500-1, Examination Category B-A, Item No. B1.10). The proposed alternative for examination of the RPV shell welds includes performing an examination, from the internal ID surface, of only the RPV axial shell welds (Item No. B1.12) and approximately 2-3 percent of the intersecting circumferential RPV shell weld (Item No. B1.11) to the maximum extent possible. The examination of the remaining accessible portions of the RPV circumferential shell welds will be permanently deferred for the life of the original unit license.

NMPC also proposes, as part of this request for relief, to perform an automated inspection of the RPV axial shell welds using personnel and procedures qualified to the Performance Demonstration Initiative, (PDI). The examinations will be performed using the General Electric Remote Inspection System (GERIS-2000). The GERIS -2000 system and procedures were demonstrated and qualified to the satisfaction of PDI and in accordance with ASME Section XI, 1992 Edition with the 1993 Addenda, Appendix VIII.

The alternative program identified in Attachment 1 provides assurance of structural integrity and, therefore, an acceptable level of quality and safety is assured.

F. IMPLEMENTATION SCHEDULE

Pursuant to 10 CFR 50.55a(a)(3)(i) the request for relief was authorized and is effective from the date of the USNRC Safety Evaluation (4/7/99) until the expiration of the operating license (8/22/09), under Tac number MA4383, dated April 7, 1999

TABLE 2 PROJECTED EXAMINATION COVERAGE OF RPV BELTLINE REGION AXIAL WELDS			
Weld Number ID	Weld Length In Beltline Region (In)	Projected ID Examination Length In Beltline Region (In)	% Of Weld Length In Beltline to be Examined
RVWD-139	128	128	100%
RVWD-140	128	128	100%
RVWD-141	128	91	71%
RVWD-142	40	40	100%
RVWD-143	40	40	100%
RVWD-144	40	40	100%
TOTAL	504	467	92.6%

TABLE 3 PROJECTED EXAMINATION COVERAGE OF ALL REACTOR VESSEL AXIAL WELDS				
Weld Number ID	Total Weld Length (In)	Projected ID Examination Total Length (In)	% Of Total Weld Length to be Examined	Cause of Limitation (See Notes)
RVWD-130	132	132	100%	
RVWD-131	132	132	100%	
RVWD-132	132	132	100%	
RVWD-133	133	76	57%	FWS
RVWD-134	133	76	57%	FWS,VB,SB
RVWD-135	133	80	60%	FWS
RVWD-139	132	132	100	
RVWD-140	132	132	100	
RVWD-141	132	91	68%	SRTRA
RVWD-142	133	101	76%	SSBP
RVWD-143	133	101	76%	SSBP
RVWD-144	81*	45	63%	SSBP
TOTAL	1538	1230	79.9%	

NOTES: FWS - Feedwater Sparger, VB - Vibration Bracket, SB - Specimen Bracket, SRTRA - Shroud Repair Tie Rod Assembly, SSBP - Shroud Support Baffle Plate

* Weld RVWD-144 is reduced due to the intersection with a Recirculation Nozzle

ATTACHMENT 1
PROPOSED EXAMINATION ALTERNATIVE

NMPC intends to inspect the RPV axial shell welds using personnel and procedures qualified to the Performance Demonstration Initiative, (PDI). The automated ultrasonic examinations will be performed using the General Electric Remote Inspection System (GERIS-2000). The GERIS -2000 system and procedures were demonstrated and qualified to the ASME Section XI, 1992 Edition with the 1993 Addenda, Appendix VIII.

The examination procedure uses echo-dynamic motion and tip diffraction characteristics of flaws for detection and sizing in lieu of ASME Code amplitude based techniques. All accessible weld examination volumes will be interrogated by the same straight and angle beam search units required by ASME Section V, Article 4 and an additional 70 degree refracted longitudinal search unit will be employed to ensure adequate investigation of the RPV axial weld clad base metal interface

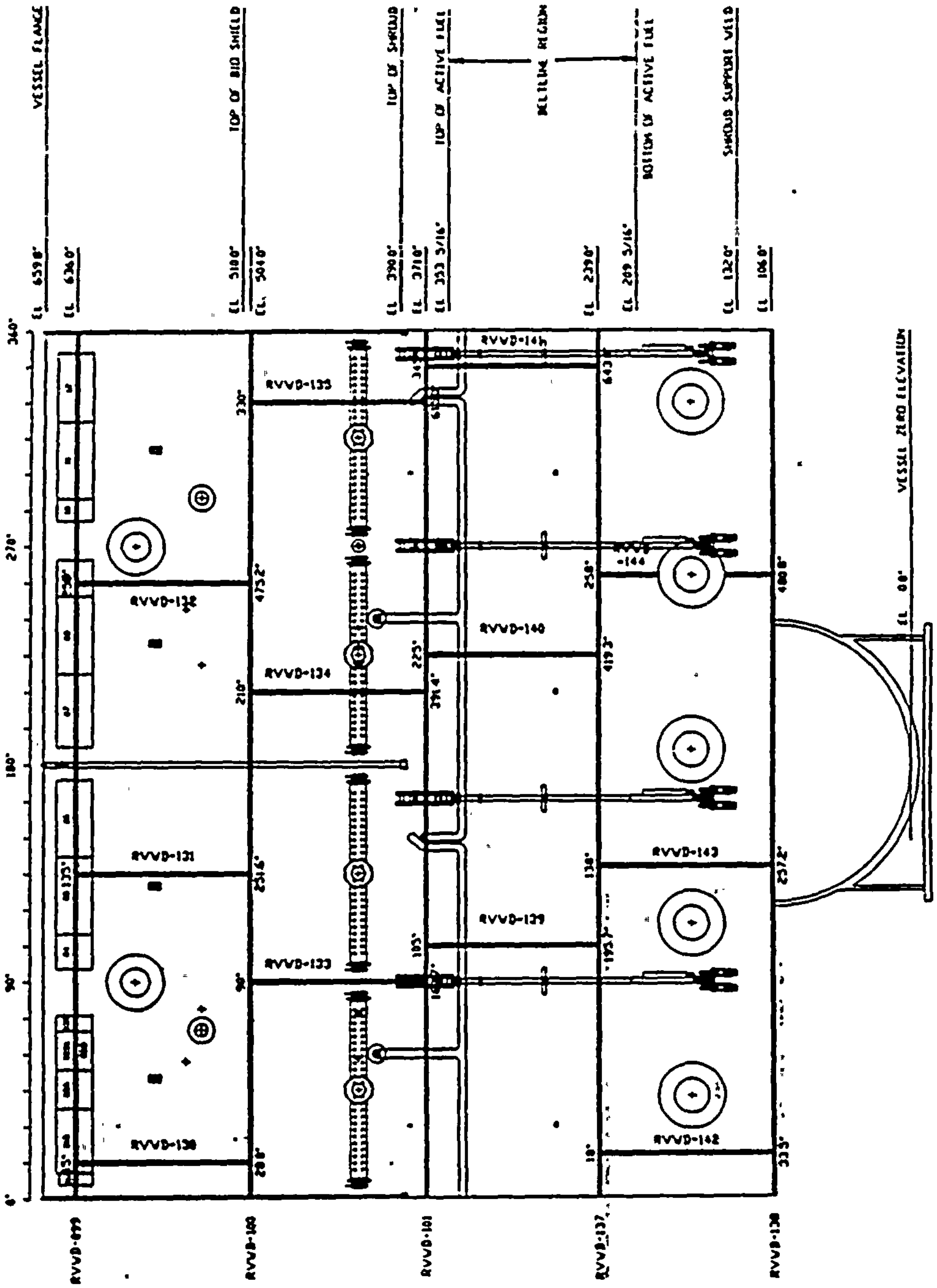
A comparison between the ASME Section V, Article 4 ultrasonic methods and procedures developed to satisfy the PDI can best be described as a comparison between a prescriptive, compliance procedure (ASME Section V) and a demonstrative results driven procedure (PDI). A typical ASME Section V procedure derives examination sensitivity to detect and size flaws based on the amplitude of a known reflector in a calibration standard. This method provides a means for standardization during examination and was easily specified in applicable documents controlling the process. This ultrasonic method has however, since been recognized as potentially providing inaccurate results for the application.

The PDI process, rather than just specifying the means by which an examination will be performed, specifies the results of the examination. Simply stated, a group of inspection specimens containing actual cracks and imbedded flaws are provided for demonstration of a procedure. These flaws are atypical of those that may be encountered in an insitu inspection of RPV shell welds and are characteristic to the flaw acceptance criteria contained in ASME Section XI, thereby validating the examination through performance. Compliance procedures would have great difficulty even detecting these type of flaws during a PDI process since the reflective amplitudes are very low or even discernible. The difference being the PDI process requires detection and measurement of tip diffracted signals whereas the compliance process relies on larger specular reflectors.

USNRC Regulatory Guide 1.150, AUltrasonic Testing of Reactor Vessel welds During Preservice and Inservice Examination@ was issued by the Staff in 1981 as a means to initiate a change to ultrasonic procedures to be results based versus compliant. The regulatory guide contains concepts for flaw detection and sizing but falls short in providing the means by which to perform the demonstrations. As such, this allows for different interpretations of the intended requirements. Based solely on cost, it would be prohibitive for an individual licensee to demonstrate ultrasonic examination procedures as has been done with the PDI process. The regulatory guide does not provide for the number of flawed specimens, blind tests, or mandate an expected level of performance as does PDI. The regulatory guide only requires an estimate of expected capability

The use of PDI qualified personnel and procedures results in a more sensitive examination and will provide added assurance for flaw detection and sizing, meeting or exceeding the current requirements of the 1989 Edition of the ASME Section XI Code and USNRC Regulatory Guide 1.150. The error band for flaw sizing has been established within the limits of ASME Section XI, Appendix VIII..

The above information and supporting technical documentation contained in the BWRVIP-05 report and NRC Safety Evaluation provides a basis for excluding the performance of RPV circumferential welds from the augmented examination requirements of 10CFR50.55a(g)(ii)(A)(2) and ASME Section XI and that the RPV axial welds being volumetrically examined using PDI and qualified personnel and procedures. Niagara Mohawk firmly believes permanent deferral for examination of the RPV circumferential shell welds for the life of the original operating license is justified and presents an acceptable level of quality and safety to satisfy the requirements of 10CFR50.55a(a)(3)(i), 10CFR50.55a(a)(3)(ii) and 10CFR50.55a(g)(6)(ii)(A)(5).


VESSEL FLANGE
TOP OF BIO SHIELD
TOP OF SHROUD
TOP OF ACTIVE FUEL
BELTLINE REGION
BOTTOM OF ACTIVE FUEL
SHROUD SUPPORT WELD
VESSEL ZERO ELEVATION
RVVD-099
RVVD-100
RVVD-101
RVVD-137
RVVD-138
RVVD-130
RVVD-131
RVVD-132
RVVD-133
RVVD-134
RVVD-135
RVVD-139
RVVD-140
RVVD-142
RVVD-143

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-2

A. COMPONENT IDENTIFICATION

System: Reactor Pressure Vessel

Class: Quality Group A, ASME Code Class 1

Component Description: Pressure Retaining Welds in Reactor Vessels

B. ASME SECTION XI INSPECTION REQUIREMENTS

Section XI, Table IWB-2500-1, Examination Category B-A requires:

Code Item No.	Component ID	Examination Description
B1.21	Circumferential Head Welds	Accessible length of all welds
B1.22	Meridional Head Welds	Accessible length of all welds
B1.30	Shell to Flange Weld	100% of weld length
B1.40	Head to Flange Weld	100% of weld length

C. RELIEF REQUESTED

Relief is requested from performing 100% volumetric examination of the Code Required Volume (CRV) for those components identified on Table 1 attached.

D. BASIS FOR RELIEF

NMP1, a BWR/2, has a Reactor Pressure Vessel that was designed and fabricated to the rules of ASME Sections I and VIII, including Nuclear Code Case 1270N and 1273N. Early vintage plants of this type were designed, fabricated and erected prior to examination requirements of ASME Section XI. Specific ultrasonic (UT) examination criteria was not required by ASME I, III, or VIII for preservice inspection of the vessel and was not factored into plant design.

The NMP1 Reactor Pressure Vessel design precludes essentially 100% examination of the weld lengths due to the following:

Closure Head

The Closure Head Dollar Plate Weld RV-WD-002, limits essentially 100% examination of weld length due to the physical location of six (6) nozzles and the close proximity of a steel platform. See attached sketch.

The Closure Head Meridional Welds (8 each) RV-WD-003, 004, 005, 006, 007, 008, 009 and 010, limits essentially 100% examination of the weld length due to the physical location of eighteen (18) nozzles and insulation lugs.

The Closure Head to Flange Weld RV-WD-001, limits essentially 100% examination of the weld length due to the configuration of the weld being a one sided exam. See attached sketch

Bottom Head

All Bottom Head circumferential welds two (2)RV-WD-147 ,RV-WD-162 and Bottom Head Meridional Welds fourteen (14) RV-WD-148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160 and 161 are inaccessible due to one hundred twenty-nine (129) Control Rod Drive nozzles and sixty-four (64) In-core Flux Nozzles.

Reactor Vessel Shell to Flange Weld

The Reactor Vessel Shell to Flange Weld RV-WD-099 limits 100% examination of the weld length due to Guide Rods located at the 0 and 180 degree position and the Main Steam Nozzle Plug hoses.

In addition to the above external access to the reactor pressure vessel bottom head welds is constrained due to inadequate clearances between the bio-shield wall and vessel insulation.

RV-WD-099(A), (B), (C) and (D), Reactor Pressure Vessel Shell to Flange Weld from the flange side, was divided into four (4), equal 90 degree segments during the First Inservice Inspection Interval and the remainder of the weld was examined from the vessel inside surface at the end of the interval. During the preparation of the Second Inspection Interval the same division process was included in the inspection plan in order to stay consistent with the First Interval. NMP1 performed the shell to flange weld in the same sequence as conducted in the first interval with the exception of segment D, which was performed from the shell side. With the completion of refueling outage 15, weld RV-WD-099 will have been examined to the extent practical.

Compliance with the ASME Section XI examination requirements would require a redesign of the Reactor Pressure vessel, which would provide an undue hardship on NMPC without a compensating increase in the quality and safety of the unit.

E. ALTERNATIVE EXAMINATIONS

No alternate examinations of the Closure Head Dollar Plate Weld RV-WD-002. Examine to the extent practical.

No alternate examinations of the Closure Head Meridional Welds (8 each) RV-WD-003, 004, 005, 006, 007, 008, 009 and 010. Examine to the extent practical.

No alternate examinations of the Closure Head to Flange Weld RV-WD-001. Examine to the extent practical 1/3 each period.

No alternate examinations of the Bottom Head circumferential welds two (2)RV-WD-147 ,RV-WD-162 and Bottom Head Meridional Welds fourteen (14) RV-WD-148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160 and 161, as they are inaccessible.

No alternate examinations of the Reactor Vessel Shell to Flange Weld RV-WD-099. Examine to the extent practical.

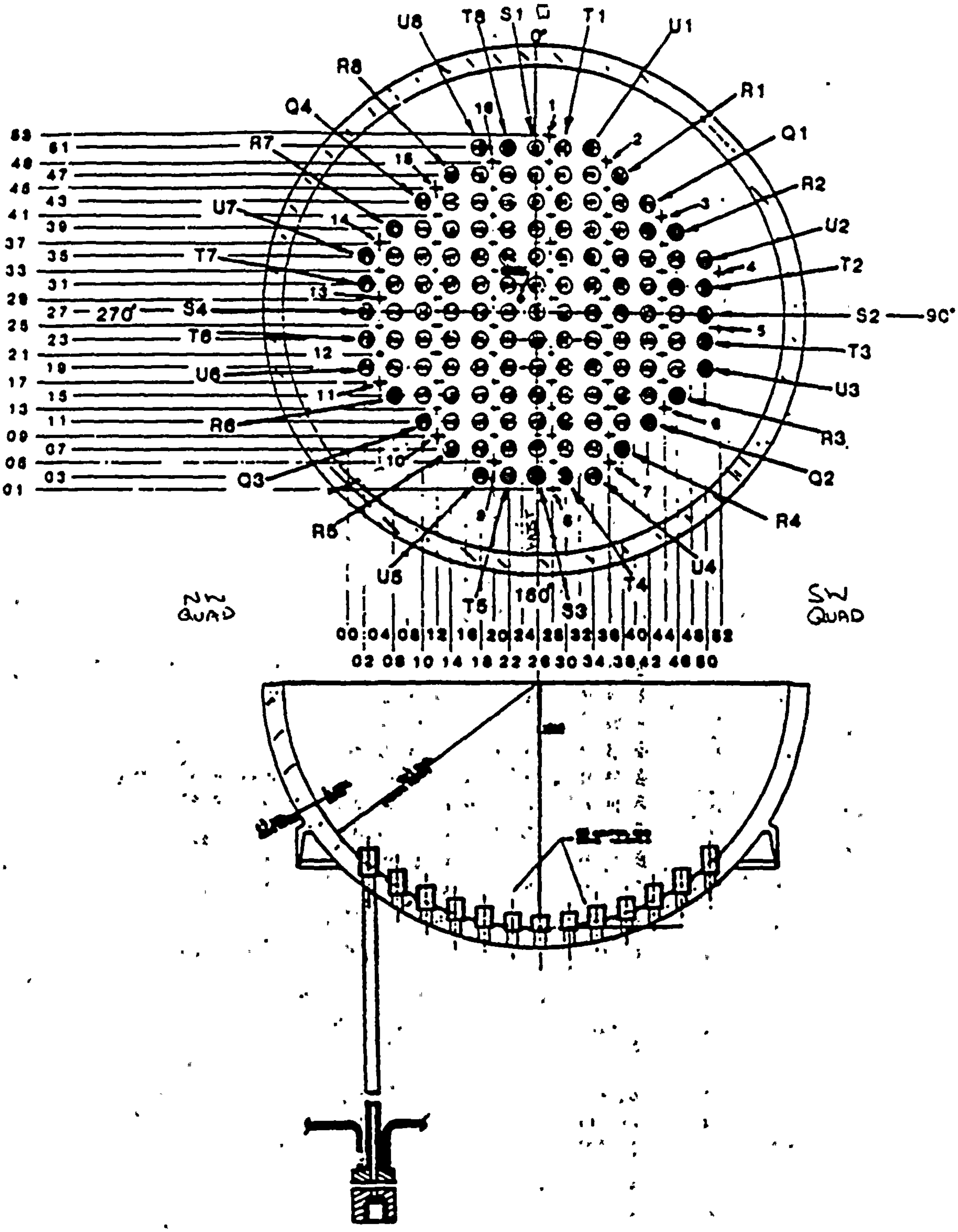
The extent of examination performed on the Reactor Pressure Vessel will assure an acceptable level of quality and safety.

F. IMPLEMENTATION SCHEDULE

Third Inservice Inspection Interval

Component ID	Component Description	Estimated % of CRV Achieved	Description of Limitation
RV-WD-001	Head to Flange Weld	67%	Obstructed by twelve nozzles, eighteen insulation lugs, three lifting lugs and the configuration of head to flange weld.
RV-WD-002	Closure Head Dollar Plate Circ. Weld	68%	Obstructed by six (6) nozzles and the close proximity Steel Platform.
RV-WD-004	CH Merd. Weld	70%	Obstructed by Nozzle N7C and N7P
RV-WD-010	CH Merd. Weld	80%	Obstructed by Nozzle N7M, N7N
RV-WD-099	Shell to Flange Weld	83.3%	Obstructed by Guide Rod, MS Nozzle Plug hoses
RV-WD-147	BH Dollar Plate Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-148	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-149	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-150	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-151	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-152	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-153	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-154	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-155	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-156	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-157	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors

Component ID	Component Description	Estimated % of CRV Achieved	Description of Limitation
RV-WD-158	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-159	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-159	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-160	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-161	BH Merd. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors
RV-WD-162	BH Circ. Weld	0%	Inaccessible due to CRD Nozzles and In Core Flux Monitors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R4
U5
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T4
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S3
NW QUAD
SW QUAD
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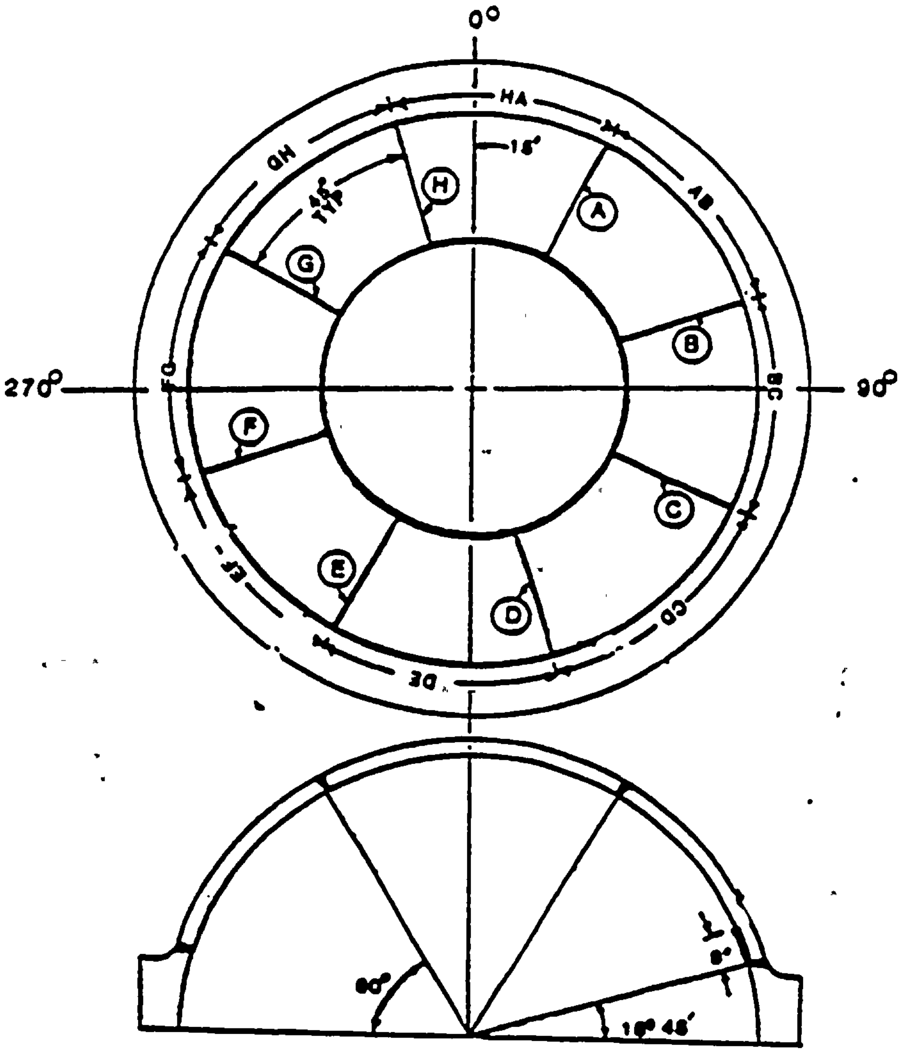
02 06 10 14 18 22 26 30 34 38 42 46 50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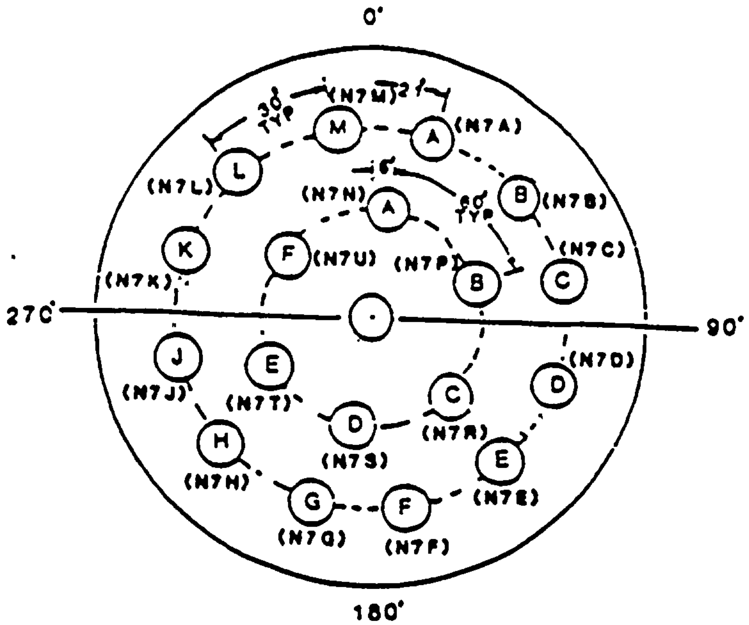
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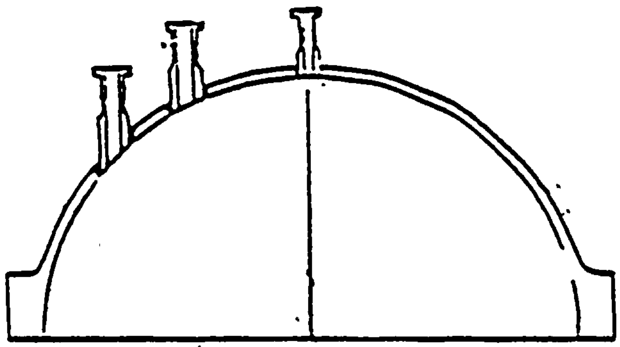


NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-3

COMPONENT IDENTIFICATION

System: Reactor Pressure Vessel

Class: Quality Group A, ASME Code Class 1

Component Description: Full Penetration Welds of Nozzles in Vessels - Inspection Program B

B. ASME SECTION XI INSPECTION REQUIREMENTS

Section XI, Table IWB-2500-1, Examination Category B-D requires:

Code Item No.	Component ID	Examination Description
B3.90	Nozzle to Vessel Welds	All Nozzles, Exam Volume per IWB-2500-7
B3.100	Nozzle Inside Radius Section	All Nozles, Exam volume per IWB-2500-7

C. RELIEF REQUESTED

Relief is requested from performing 100% volumetric examination of the Code Required Volume (CRV) for those components identified in Table 1 attached.

D. BASIS FOR RELIEF

NMP1, a BWR/2, has an Reactor Pressure Vessel that was designed and fabricated to the rules of ASME Sections I and VIII, including Nuclear Code Case 1270N and 1273N. Early vintage plants of this type were designed, fabricated and erected prior to examination requirements of ASME Section XI. Specific ultrasonic (UT) examination criteria was not required by ASME I, III, or VIII for preservice inspection of the vessel and was not factored into plant design.

The NMP1 Reactor Pressure Vessel design of the nozzles precludes essentially 100% examination of the Code required volume due to the following conditions:

1. Nozzle locations (close proximity to each other), doesn't allow enough scan distance between nozzles to interrogate the entire Code Required volume.

2. Nozzle configurations and shell tapers do not provide parallel surface, therefore providing areas of non scanning.

3. lifting lugs and insulation lugs limit the scan distances required to interrogate portions of Code volume.

4. limited access for examination personnel between the reactor pressure vessel and the biological shield limits the maximum search unit scanning distance for each nozzle.

Compliance with the ASME Section XI examination requirements would require a redesign of the Reactor Pressure vessel, which would provide an undue hardship on NMPC without a compensating increase in the quality and safety of the unit.

ALTERNATIVE EXAMINATIONS

No alternate examinations proposed. Examine each nozzle to vessel weld and inner radius section to the extent practical.

The extent of examination performed on the Reactor Pressure Vessel Nozzles will assure an acceptable level of quality and safety.

F. IMPLEMENTATION SCHEDULE

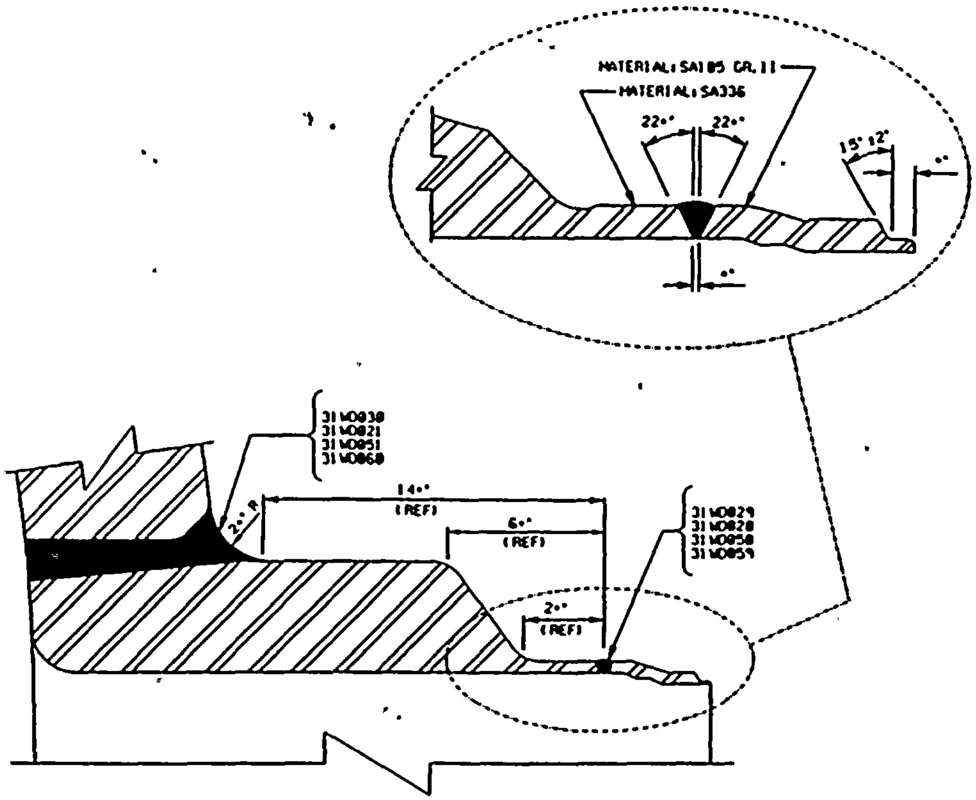
Third Inservice Inspection Interval

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-3

Component ID	Component Description	Estimated % of CRV Achieved	Description of Limitation
01-WD-001	N3A Nozzle to Vessel	87%	Adjacent nozzle, Bio-shield wall
01-WD-001-IR	N3A Noz. Inner Radius	54%	Adjacent nozzle, Bio-shield wall
01-WD-033	N3B Nozzle to Vessel	91% 80.1%	Manual Adjacent Nozzle, Bio-shield wall Geris
01-WD-033-IR	N3B Noz. Inner Radius	79%	Adjacent nozzle, Bio-shield wall
31-WD-021	N4B Nozzle to Vessel	78%	Adjacent nozzle, Bio-shield wall
31-WD-021-IR	N4B Noz. Inner Radius	47%	Adjacent Nozzle, Bio-shield wall
31-WD-030	N4A Nozzle-Vessel	42.1%	Adjacent Nozzle, Bio-shield wall.
31-WD-030-IR	N4A Noz. Inner Radius	82%	Adjacent Nozzle, Bio-shield wall.
31-WD-051	N4C Nozzle to Vessel	84%	Adjacent Nozzle, Bio-shield wall.
31-WD-051-IR	N4C Noz. Inner Radius	86%	Adjacent Nozzle, Bio-shield wall.
31-WD-060	N4D Nozzle to Vessel	85%	Bio-shield wall.
31-WD-060-IR	N4D Noz. Inner Radius	59%	Bio-shield wall.
32-WD-001	N1A Nozzle-Vessel	33.8%	Lug, Adjacent Nozzle, Bio-shield Wall
32-WD-001-IR	N1A Noz. Inner Radius	73%	Adjacent Nozzle, Bio-shield wall.
32-WD-043	N2A Nozzle to Vessel	75%	Bottom Head Taper of Shell Thickness
32-WD-043-IR	N2A Noz. Inner Radius	82%	Bottom Head Taper of Shell Thickness
32-WD-044	N1B Nozzle to Vessel	67.9%	Bio-shield wall.
32-WD-044-IR	N1B Noz. Inner Radius	73%	Bio-shield wall.
32-WD-083	N2B Nozzle to Vessel	75.4%	Bottom Head Taper of Shell Thickness
32-WD-083-IR	N2BNoz. Inner Radius	82%	Bottom Head Taper of Shell Thickness
32-WD-084	N1C Nozzle to Vessel	67.8%	Bottom Head Taper of Shell Thickness
32-WD-084-IR	N1C Noz. Inner Radius	73%	Lug, Adjacent Nozzle, Bio-shield Wall
32-WD-123	N2C Nozzle to Vessel	75.4%	Bottom Head Taper of Shell Thickness
32-WD-123-IR	N2C Noz. Inner Radius	82%	Bottom Head Taper of Shell Thickness
32-WD-124	N1D Nozzle to Vessel	68%	Bio-shield Wall
32-WD-124-IR	N1D Noz. Inner Radius	73%	Bio-shield Wall
32-WD-165	N2D Nozzle to Vessel	75.4%	Bottom Head Taper of Shell Thickness
32-WD-165-IR	N2D Noz. Inner Radius	82%	Bottom Head Taper of Shell Thickness

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-3

Component ID	Component Description	Estimated % of CRV Achieved	Description of Limitation
32-WD-166	N1E Nozzle to Vessel	33.8%	Lug, Thermocouple, Bio-shield wall
32-WD-166-IR	N1E Noz. Inner Radius	73%	Lug, Adjacent Nozzle, Bio-shield Wall
32-WD-209	N2E Nozzle to Vessel	74.5%	Bottom Head Taper of Shell Thickness
32-WD-209-IR	N2E Noz. Inner Radius	82%	Bottom Head Taper of Shell Thickness
39-WD-001	N5A Nozzle to Vessel	65%	Adjacent Nozzle, Bio-shield Wall
39-WD-001-IR	N5A Noz. Inner Radius	55%	Lug, Adjacent Nozzle, Bio-shield Wall
39-WD-089	N5B Nozzle to Vessel	52.5%	Adjacent Nozzle, Bio-shield Wall
39-WD-089-IR	N5B Noz. Inner Radius	79.3%	Adjacent Nozzle, Bio-shield Wall
40-WD-040	N6A Nozzle to Vessel	65.8%	Adjacent Nozzle, Bio-shield Wall
40-WD-040-IR	N6A Noz. Inner Radius	89.5%	Adjacent Nozzle, Bio-shield Wall
40-WD-081	N6B Nozzle to Vessel	57.3%	Adjacent Nozzle, Bio-shield Wall
40-WD-081-IR	N6B Noz. Inner Radius	78.1	Adjacent Nozzle, Bio-shield Wall
44.1-WD-018	N9 Nozzle to Vessel	46.2%	Bio-shield wall
44.1-WD-018-IR	N9 Noz. Inner Radius	48%	Bio-shield Wall



FEEDWATER NOZZLE ASSEMBLY

NOZZLE	EXAM ID	
N4A	31WD030	31WD029
N4B	31WD021	31WD020
N4C	31WD051	31WD050
N4D	31WD060	31WD059

NOTES:

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2) THIS DRAWING IS INTENDED FOR USE IN CONJUNCTION WITH THE INSERVICE INSPECTION PROGRAM PLAN ONLY. IT IS INTENDED TO PROVIDE ONLY A GENERAL REPRESENTATION OF THE IDENTIFIED COMPONENT/EQUIPMENT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.

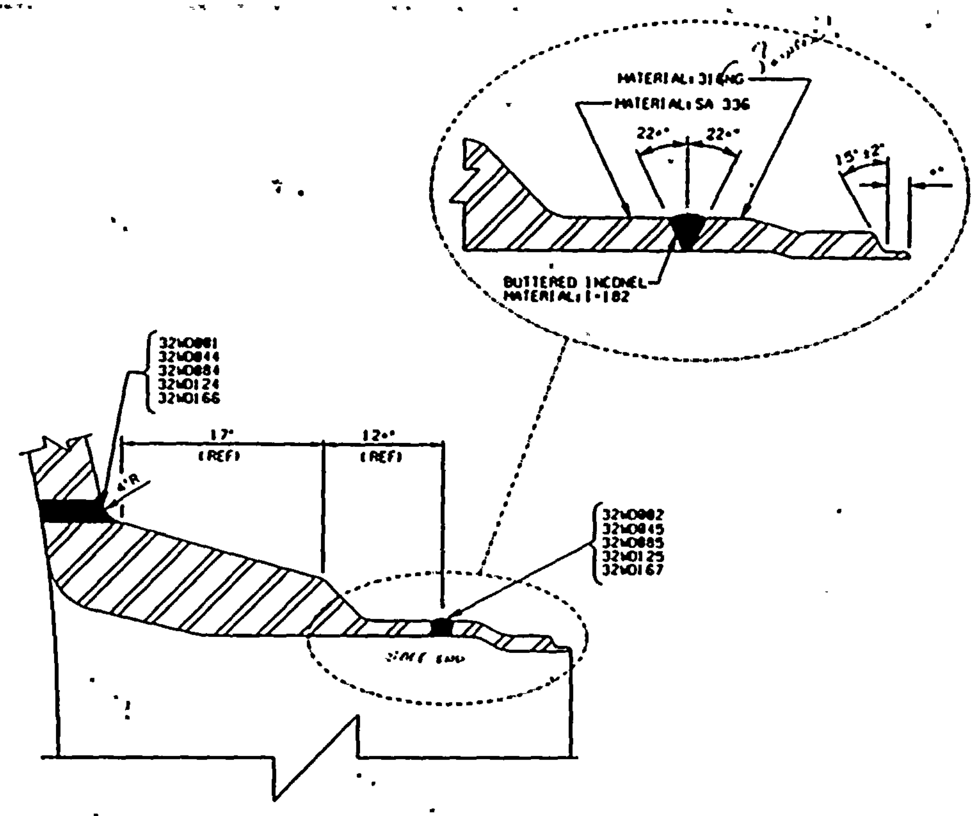
3) SECTION XI CLASS 1.

REFERENCES:

- COMP DRAWING - CE 231-566
- SECTION XI BOUNDARY DIAGRAM, F-63006-C, SH.1
- WELD MAP DRAWING F45183-C SHEET 5 AND 28

NOTE: THIS DRAWING WAS CREATED USING COMPUTER AIDED DRAFTING
DO NOT MAKE MANUAL CHANGES

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION UNIT 1
COMPONENT DETAIL DRAWING
FEEDWATER NOZZLE ASSEMBLY
INSERVICE INSPECTION PROGRAM
NONE
ISI-NOZ-004



RECIRCULATION OUTLET NOZZLE ASSEMBLY

NOZZLE	EXAM ID	
N1A	32W0001	32W0002
N1B	32W0044	32W0045
N1C	32W0084	32W0085
N1D	32W0124	32W0125
N1E	32W0166	32W0167

NOTES:

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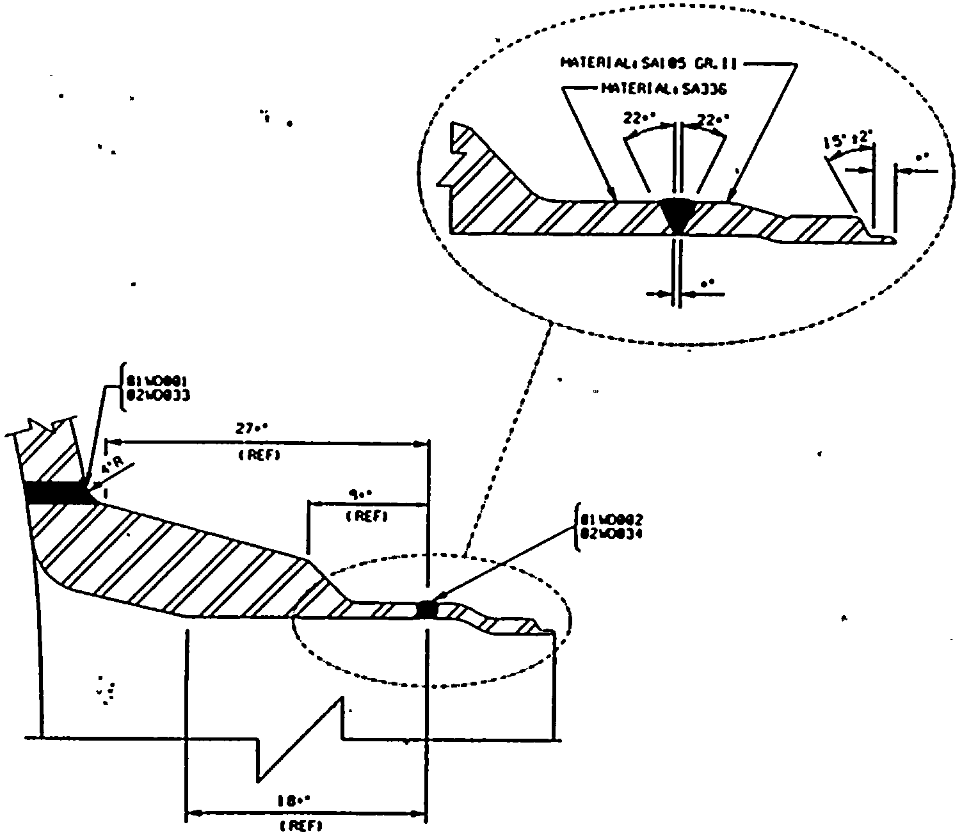
3) SECTION XI CLASS 1.

REFERENCES:

- COMP DRAWING - CE 231-565
- SECTION XI BOUNDARY DIAGRAM F-63006-C, SH. 1
- WELD MAP DRAWING F45183-C SHEET 7 AND 28

NOTE: THIS DRAWING WAS CREATED USING COMPUTER AIDED DRAFTING
DO NOT MAKE MANUAL CHANGES

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION UNIT 1
COMPONENT DETAIL DRAWING
RECIRCULATION OUTLET NOZZLE
INSERVICE INSPECTION PROGRAM
NONE
ISI-NOZ-001



STEAM OUTLET - TUBINE NOZZLE ASSEMBLY

NOZZLE	EXAM ID	
N3A	01WD001	01WD002
N3B	01WD033	01WD034

NOTES:

1) THIS DRAWING IDENTIFIES COMPONENTS SUBJECT TO INSERVICE INSPECTION EXAMINATIONS AS REQUIRED BY ASME SECTION XI AND DEFINED IN THE NMPC INSERVICE INSPECTION PROGRAM PLAN.

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3) SECTION XI CLASS 1.

REFERENCES:

- COMP DRAWING - CE 231-566
- SECTION XI BOUNDARY DIAGRAM, F-63006-C, SH. 1
- WELD MAP DRAWING F45183-C SHEET 2 AND 28

NOTE: THIS DRAWING WAS CREATED USING COMPUTER AIDED DRAFTING
DO NOT MAKE MANUAL CHANGES

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION UNIT 1
COMPONENT DETAIL DRAWING
STEAM OUTLET - TURBINE NOZZLE ASSY
INSERVICE INSPECTION PROGRAM
NONE
ISI-NOZ-003

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-4

COMPONENT IDENTIFICATION

System: Reactor Pressure Vessel

Class: Quality Group A, (ASME Code Class 1)

Component Description: Pressure Retaining Welds In Reactor Vessel

B. ASME SECTION XI INSPECTION REQUIREMENTS

Section XI, Table IWB-2500-1, Examination Category B-A requires:

Code Item No.	Parts Examined	Exam Requirements	Extent and Frequency
B1.12	Reactor Vessel Longitudinal Shell Weld	IWB-2500-2	Includes essentially 100% of weld length
B1.30	Reactor Vessel Shell to Flange Weld	IWB-2500-4	Includes essentially 100% of weld length

Pursuant to IWB-2420(b) If flaw indications or relevant conditions are evaluated in accordance with IWB-3132.4, and the component qualifies as acceptable for continued service, the area containing such flaw indications shall be reexamined during the next three inspection periods listed in the schedules of the inspection programs of IWB-2410.

RELIEF REQUESTED

Relief is requested from paragraph IWB-2420(b), from performing reexaminations of the flaw indications during the next three inspection periods.

D. BASIS FOR RELIEF

During the automated ultrasonic examinations of the Reactor Pressure Vessel shell welds, several sub-surface indications were observed that exceeded the acceptance criteria of IWB-3000 on welds RV-WD-099 and RV-WD-140.

Weld RV-WD-099 identified six (6) unacceptable flaws, located in the region of the weld fusion lines and were attributed to lack of fusion and thin film slag deposits left from the fabrication process.

Weld RV-WD-140 identified two (2) unacceptable flaws, located in the region of the weld fusion lines and were attributed to lack of fusion and thin film slag deposits left from the fabrication process.

Review of the construction radiographs (RT) provided a correlation with the ultrasonic indications.

An analytical evaluation was performed in accordance with IWB-3600 and the welds were found to be acceptable for continued service. These evaluations took into consideration flaw growth that is unlikely to occur with fabrication related flaws. The flaws were found to be acceptable for continued service until the intended end of plant life.

ASME Code Case N-526, Alternative Requirements for Successive Inspections of Class 1 and 2 Vessels, Section XI, Division 1, (attached), provides an alternate to the reexamination required by IWB-2420(b).

Compliance with the ASME Section XI reexamination requirements would provide an undue hardship on NMPC, without a compensating increase in the quality and safety of the unit.

E. ALTERNATIVE EXAMINATIONS

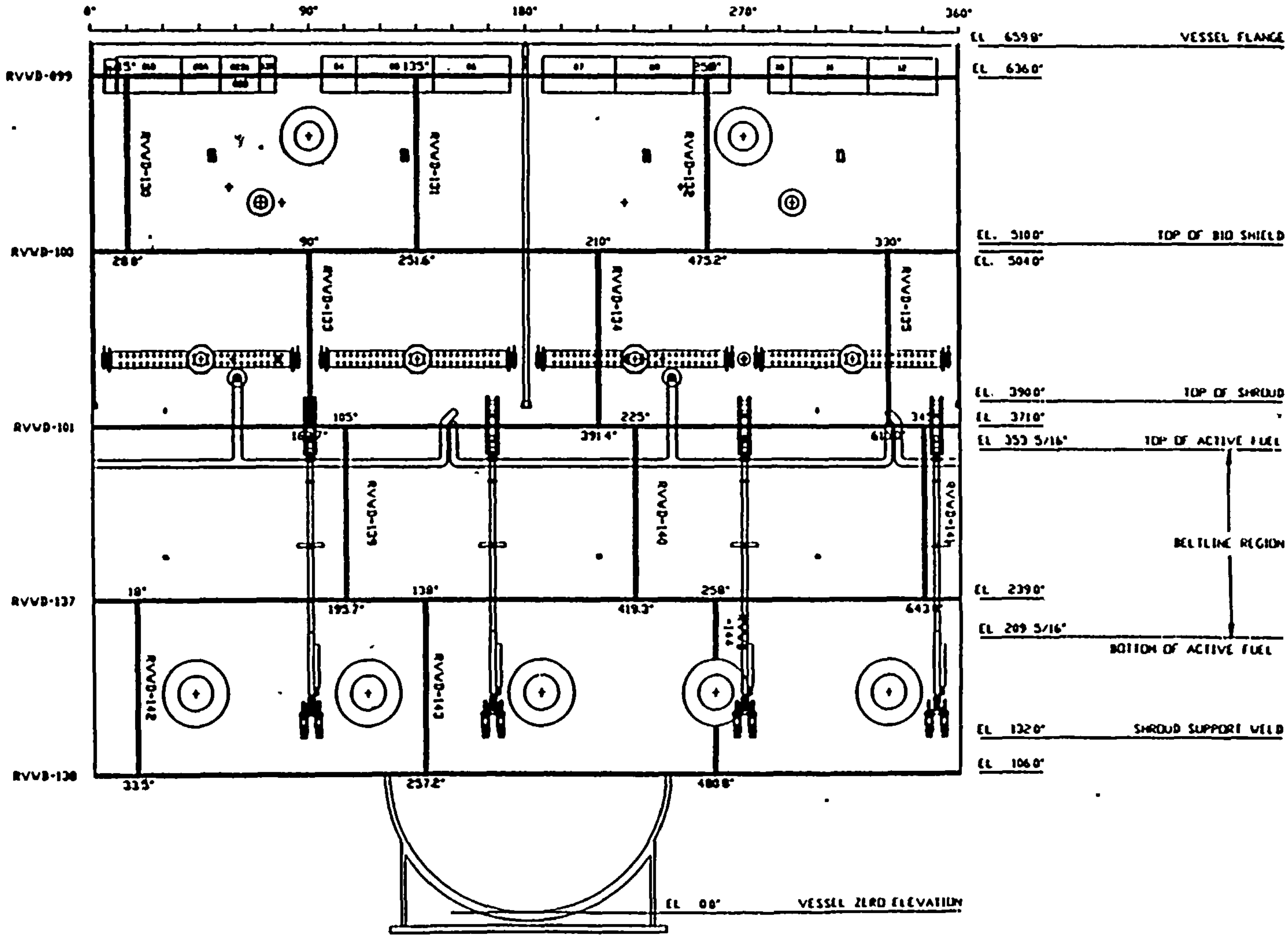
No alternate examinations proposed. Reexamine the flaws along with the Code required examinations for welds RV-WD-140 and RV-WD-099 as currently scheduled in the ISI Program.

The extent of examination performed on the Reactor Pressure Vessel will assure an acceptable level of quality and safety.

F. IMPLEMENTATION SCHEDULE

Third Inservice Inspection Interval

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-4



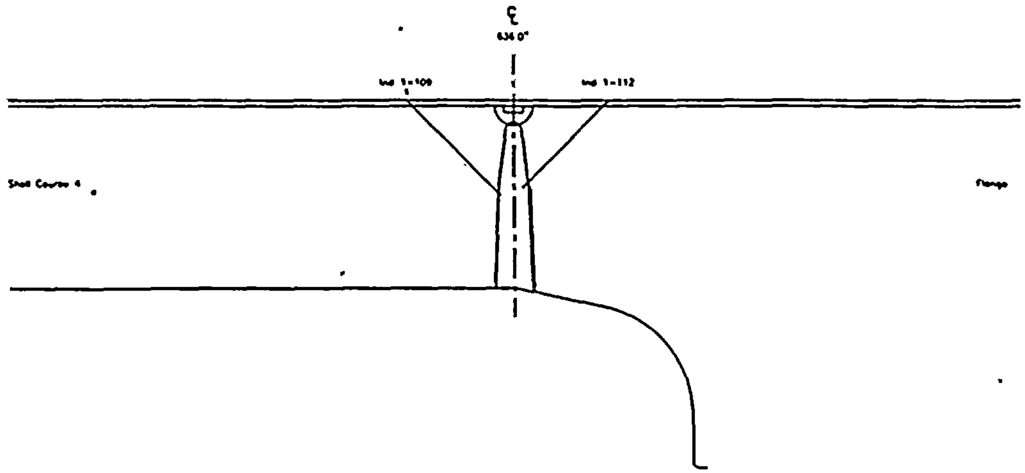


Figure 1 Flaw Location Plots (Typical) in Cross Section, RV-WD-099

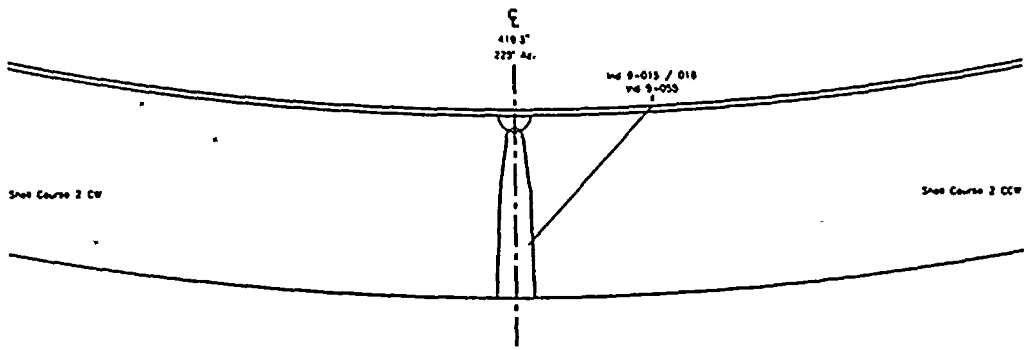


Figure 2 Flaw Location Plots in Cross Section, RV-WD-140

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-5

COMPONENT IDENTIFICATION

System: Reactor Pressure Vessel

Class: Quality Group A, ASME Code Class 1

Component Description: Integral Attachments For Class 1 Vessels, Piping, Pumps and Valves

B. ASME SECTION XI CODE CASE N-509 INSPECTION REQUIREMENTS

Code Case N-509, Table 2500-1, Examination Category B-K requires:

Code Item No.	Parts Examined	Exam Requirements	Extent and Frequency
B10.10	Reactor Vessel Integrally Welded Attachments	IWB-2500-13, 14 and 15	100% of required areas of each welded attachment

Note: Regulatory Guide 1.147, Revision 12, dated May 1999, is acceptable to the USNRC provided that in addition to those conditions specified in the Code Case: A minimum 10% sample of integrally welded attachments for each item in each code class per interval should be examined.

C. RELIEF REQUESTED

Relief is requested from performing 100% of the length of the attachment weld at each attachment subject to examination.

D. BASIS FOR RELIEF

NMP1, a BWR/2, has an Reactor Pressure Vessel that was designed and fabricated to the rules of ASME Sections I and VIII, including Nuclear Code Case 1270N and 1273N. Early vintage plants of this type were designed, fabricated and erected prior to examination requirements of ASME Section XI.

Of the (6) integral attachments subject to examination, four (4) are the earthquake stabilizer brackets and two (2) are the reactor pressure vessel support skirt integral attachment, which is broken down into inside surface and outside surface.

EARTHQUAKE STABILIZER BRACKET ATTACHMENTS

The four (4) alloy steel Reactor Vessel earthquake stabilizer attachments brackets are located at 22.5, 112.5, 202.5 and 292.5 degree axis points around the outer circumference of the vessel approximately eleven (11) feet and eight (8) inches below the vessel flange. See attached drawing for locations. Access for examination purposes only allows a maximum of 50% of the attachment weld length to be examined on all four (4).

REACTOR VESSEL SUPPORT SKIRT

The Reactor Vessel support skirt is divided within the examination plan as two (2) separate items, these being the inside surface of the attachment weld and the outside surface of the attachment weld. Access to the support skirt is limited to the outside surface of the attachment weld only. The inside surface is inaccessible.

EXAMINATION REQUIREMENTS

The Code Case requires that a surface examination be performed in accordance with Figures IWB-2500-13 and IWB-2500-15.

The earthquake stabilizer bracket (Figure IWB-2500-15) attachments require the weld plus 0.50" on each side of the weld and essentially 100% of the weld length to be examined by the surface (Magnetic Particle or Liquid Penetrant Method).

The reactor vessel skirt weld (Figure IWB-2500-13) attachment requires the weld plus 0.50" on each side of the weld and essentially 100% of the weld length to be examined by the surface (Magnetic Particle or Liquid Penetrant Method).

The use of the ultrasonic examination method in lieu of the surface exam is not appropriate due to the access provision would be the same as that for the surface examination. In addition the ultrasonic examination of the outside surface of the vessel skirt from one side would be inappropriate due to the design and geometry of the skirt being non parallel surfaces on the forging knuckle. The additional areas achieved would be negligible.

The 10% sample requirements for the six (6) Code Item Number B10.10 integral attachments would require as a minimum one (1) integral attachment required to be examined over the interval.

Compliance with the ASME Code Case examination requirements would require a redesign of the Reactor Pressure vessel integral attachments, which would provide an undue hardship on NMPC without a compensating increase in the quality and safety of the unit.

E. ALTERNATIVE EXAMINATIONS

NMPC proposes to perform the following examinations:

Schedule two of the four Earthquake stabilizer brackets for surface examination to the extent practical. The anticipated Code Required Area to be achieved will be 50% on each integral attachment, which would be equivalent of completing essentially one bracket.

In addition to the stabilizer attachment, NMPC proposes to perform to the extent practical a surface examination on the outside surface of the RPV Support skirt only.

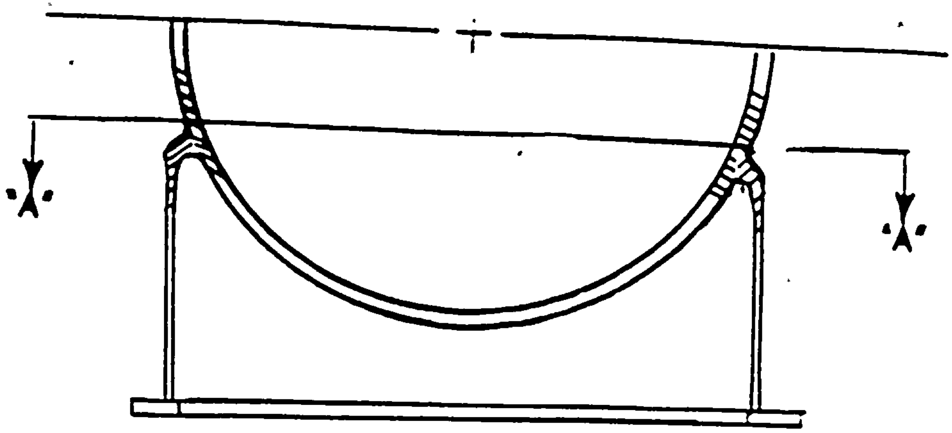
The extent of examination performed on the Reactor Pressure Vessel Integral Attachment will assure an acceptable level of quality and safety.

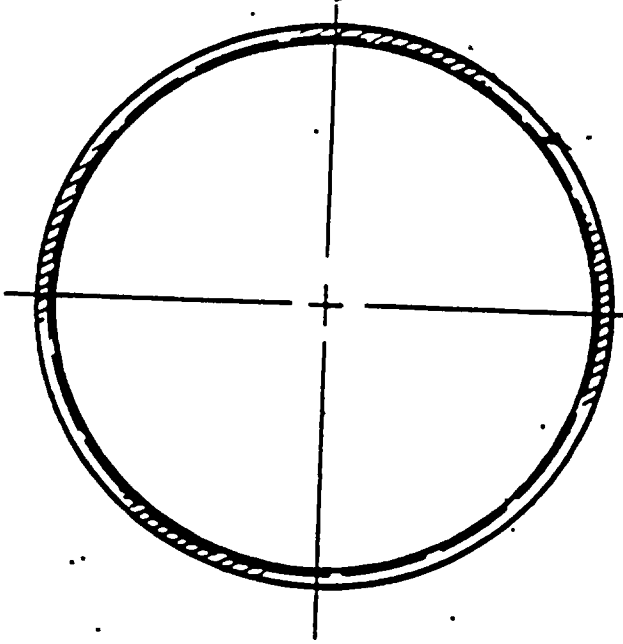
F. IMPLEMENTATION SCHEDULE

Third Inservice Inspection Interval

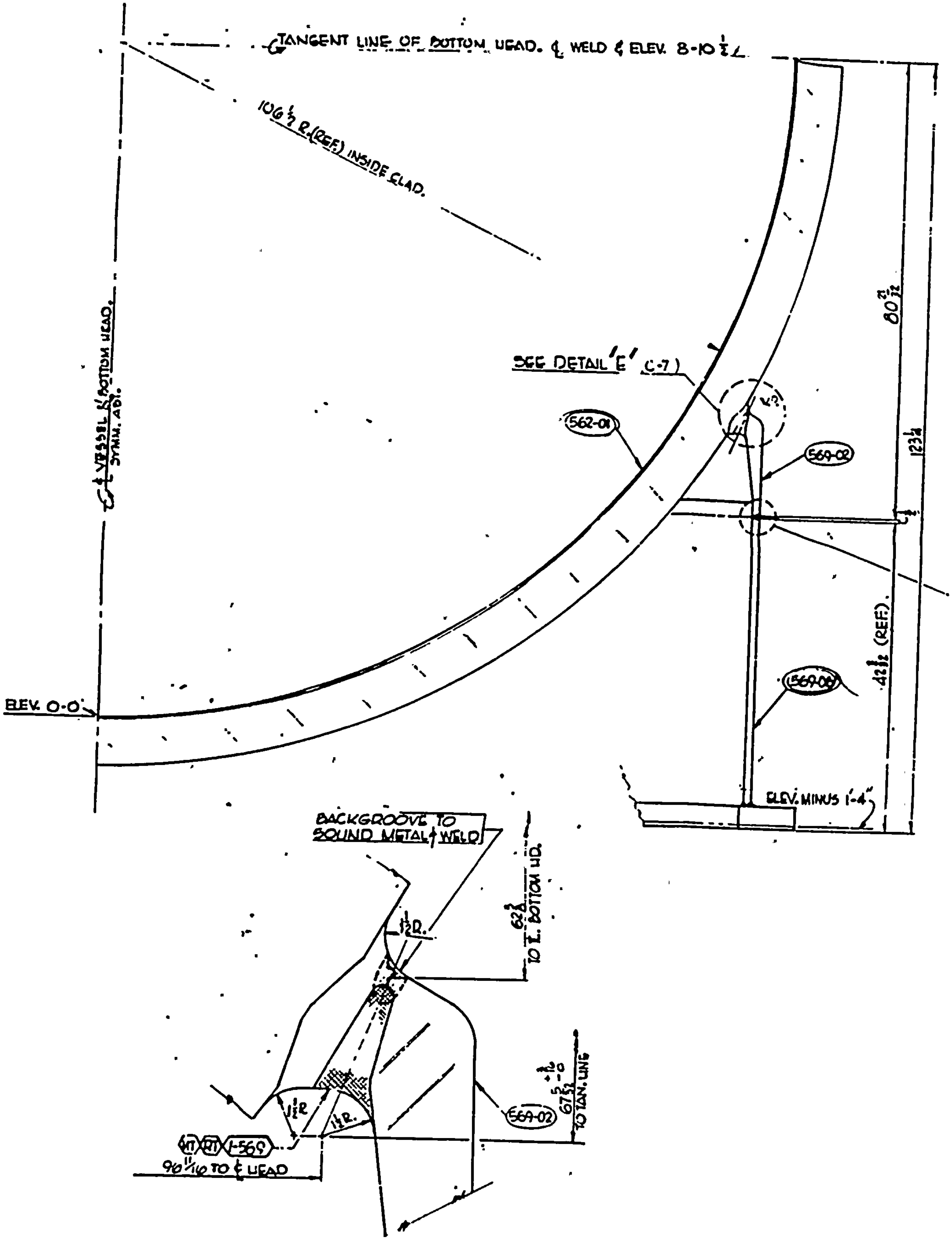
NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-5

Component Identification	Component Description	Percent (%) of CRA to be achieved	Selection
RV-SB1-IA-371/372	Earth Quake Stabilizer Integral Attachment	50%	Selected
RV-SB2-IA-373/374	Earth Quake Stabilizer Integral Attachment	50%	Selected
RV-SB3-IA-375/376	Earth Quake Stabilizer Integral Attachment	50%	Not Selected
RV-SB4-IA-377/378	Earth Quake Stabilizer Integral Attachment	50%	Not Selected
RV-WD-356-ID	Support Skirt Integral Attachment	50%	Not Selected
RV-WD-356-OD	Support Skirt Integral Attachment	50%	Selected




0
270
90
180

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-5



NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-6

COMPONENT IDENTIFICATION

System: Reactor Pressure Vessel

Class: Quality Group A, ASME Code Class 1

Component Description: Pressure Retaining Welds In Control Rod Drive Housing

B. ASME SECTION XI INSPECTION REQUIREMENTS

Section XI, Table IWB-2500-1, Examination Category B-O requires:

Code Item No.	Parts Examined	Exam Requirements	Extent and Frequency
B14.10	Reactor Vessel Welds in CRD Housing	IWB-2500-18	10% of the Peripheral CRD Housings required

C. RELIEF REQUESTED

Pursuant to 10 CFR 50.55a(g)(6)(i) NMPC requests relief from performing 100% of the Code Required Volume of 10% of the peripheral CRD Housing welds length as defined in Figure IWB-2500-18.

BASIS FOR RELIEF

NMP1, a BWR/2, has an Reactor Pressure Vessel that was designed and fabricated to the rules of ASME Sections I and VIII, including Nuclear Code Case 1270N and 1273N. Early vintage plants of this type were designed, fabricated and erected prior to examination requirements of ASME Section XI.

There are one hundred twenty-nine (129) Control Rod Drive Housings located on the bottom head. Thirty-two (32) are peripheral CRD Housing for which 10% or 3 are required to be examined during the interval.

A sector of approximately 180 degrees of each CRD peripheral housing circumference is obstructed by the adjacent CRD housings and their hydraulic lines. See attached drawing.

E. ALTERNATIVE EXAMINATIONS

NMPC proposes to perform surface examinations on six (6) of the peripheral control rod drive housing in lieu of the 3 required. The additional 3 housing examinations will result in the same weld length being examined, thereby meeting the intent of the Code requirement.

This approach was preciously granted per USNRC Safety Evaluation, TAC No. M83099, dated April 6, 1994.

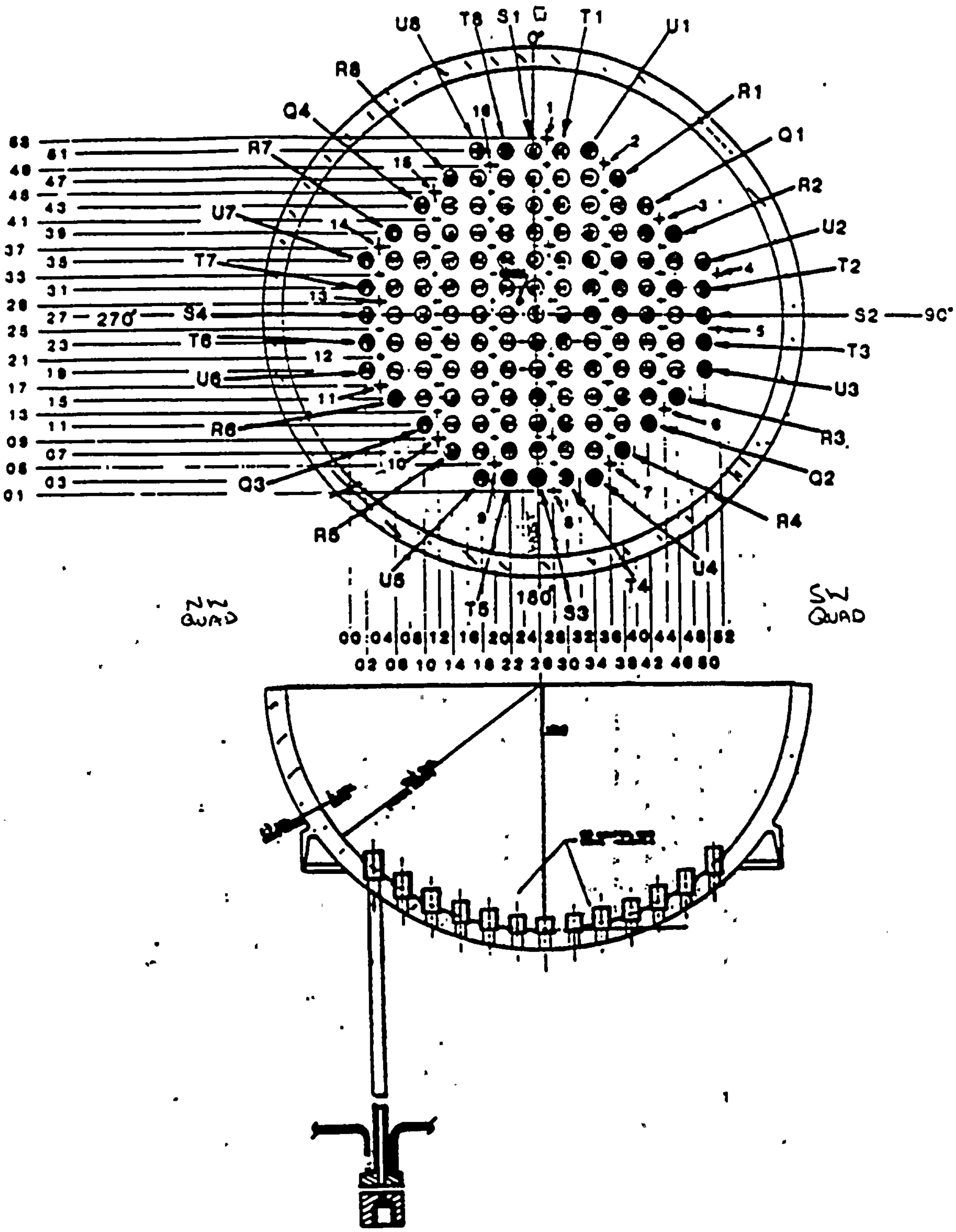
The extent of examination performed on the Control Rod Drive Housings will assure an acceptable level of quality and safety.

F. IMPLEMENTATION SCHEDULE

Third Inservice Inspection Interval

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-6

Component Identification	Component Description	Percent (%) of CRA to be achieved	Selection
RV-CRD-S1	CRD Housing Weld	50%	Selected
RV-CRD-S3	CRD Housing Weld	50%	Selected
RV-CRD-R1	CRD Housing Weld	50%	Selected
RV-CRD-R5	CRD Housing Weld	50%	Selected
RV-CRD-T3	CRD Housing Weld	50%	Selected
RV-CRD-T7	CRD Housing Weld	50%	Selected
RV-CRD-U2	CRD Housing Weld	50%	Not Selected
RV-CRD- U6	CRD Housing Weld	50%	Not Selected


U8
T8
S1
0°
T1
U1
R8
R1
Q4
Q1
R7
R2
U7
U2
T7
T2
270°
S4
S2
90°
T6
T3
U6
U3
R6
R3
Q3
Q2
R5
R4
U5
U4
T5
T4
180
S3
NW QUAD
SW QUAD
00 04 08 12 16 20 24 28 32 36 40 44 48 52
02 06 10 14 18 22 26 30 34 38 42 46 50

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-7

A. **COMPONENT IDENTIFICATION**

System: Reactor Containment Spray

Class: Quality Group B, ASME Code Class 2

Component Description: Pressure Retaining Welds in Pumps

B. **ASME SECTION XI EXAMINATION REQUIREMENTS**

ASME Section XI, Table IWB-2500-1, Examination Category C-G , "Pressure Retaining Welds in Pumps, Examination Item Number C6.10, "Pump Casing Welds", requires a surface examination of 100% welds in all components in each piping run examined under Examination Category C-F.

In case of multiple pumps of similar design, function, and service in a system, the examination of only one pump among each group of multiple pumps is required.

The examination may be performed from either the inside or outside surface of the component.

Systems affected	Pump Affected	Welds Affected	Reason Affected
80.0 Reactor Containment Spray	121	80-03-WD-009 80-03-WD-012 80-03-WD-014 80-03-WD-010 80-03-WD-011	Embedded in Concrete Embedded in Concrete Embedded in Concrete When disassembled When disassembled
81.0 Reactor Core Spray	121	81-03-WD-009 81-03-WD-012 81-03-WD-014 81-03-WD-010 81-03-WD-011	Embedded in Concrete Embedded in Concrete Embedded in Concrete When disassembled When disassembled

C. **RELIEF REQUESTED**

NMPC request relief from ASME Section XI, Table IWB-2500-1, Examination Category C-G , "Pressure Retaining Welds in Pumps, Examination Item Number C6.10, "Pump Casing Welds", of performing surface examinations of 100% welds, of only one pump among each group of multiple pumps in a system.

D. **BASIS FOR RELIEF**

Reactor Containment Spray Pumps, Figure ISI-PUMP-002(attached), provided a typical drawing of the pump 80-03, 80-04, 80-23 and 80-24. This drawing identifies sixteen (16) welds on each pump subject to examination. Of the 16 welds ten (10) are subject to Examination Category C-G surface examinations. Of the ten (10) welds subject to surface examination, three (3) are embedded in concrete, and two (2) can only be examined when the pump is disassembled.

Reactor Core Spray Pumps, Figure ISI-PUMP-003 (attached), provided a typical drawing of the pump 81-03, 81-04, 81-23 and 81-24. This drawing identifies sixteen (16) welds on each pump subject to examination. Of the 16 welds ten (10) are subject to Examination Category C-G surface examinations. Of the ten (10) welds subject to surface examination, three (3) are embedded in concrete, and two (2) can only be examined when the pump

is disassembled.

All the pumps in each system provide the same limitations as previously discussed above, therefore, the five (5) welds in question on the selected pump can not be substituted for five (5) welds on another pump.

NMPC considered selecting an alternate five (5) welds on another pump within each system to substitute for those welds that are inaccessible. This consideration was dismissed as the information provided would not provide meaningful information relating to the inaccessible welds.

Two (2) of the five (5) inaccessible welds on each pump are accessible when the pump is disassembled, welds 80-03-WD-010, 011 and 81-03-WD-010, 011. Table IWB-2500-1, footnote (2) allows the examination to be performed either from the inside or outside surface of the pump. Therefore these welds would be required to be examined when and if the pump is disassembled.

The three (3) weld on each pump that are embedded within concrete are inaccessible from the outside surface, but even if the pump was disassembled would provide some accessibility problems from the inside surface. NMPC feels that the welds imbedded in the concrete would provide an greater acceptable level of safety over and above the limited surface examinations required by the Examination Category C-G.

E. ALTERNATIVE EXAMINATIONS

NMPC proposes to the extent practical, and only when the pump is disassembled for maintenance, repair and or replacement to perform the surface examinations on welds 80-WD-03-010, 011 and 81-03-WD-010, 011 as required by Examination Category C-G.

On welds 80-03-WD-009,012, 014 and 81-03-WD-009, 012, 014, NMPC proposes to the extent practical and only when disassembled for maintenance, repair and or replacement to perform a Visual examination of the interior surface of the pump casing embedded in concrete.

The examination performed on accessible welds, coupled with the proposed examinations and the system pressure test will provide an acceptable level of quality and safety.

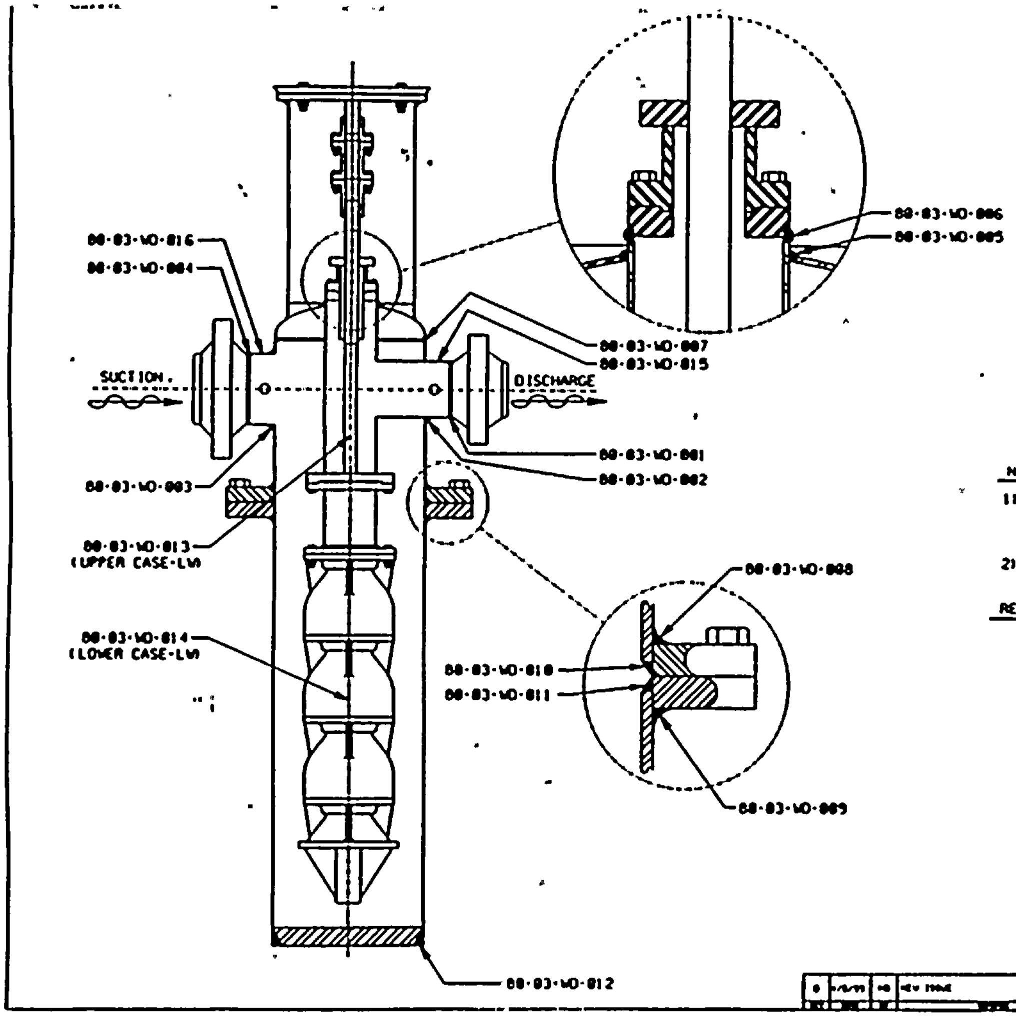
F. IMPLEMENTATION SCHEDULE

Third Inservice Inspection Interval

G. ATTACHMENTS

Drawing ISI-PUMP-003 Reactor Core Spray Pump Drawing

Drawing ISI-PUMP-002 Reactor Containment Spray Pump Drawing



COMP ID	EXAM ID
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	80-03-WO-007
	80-03-WO-008
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	80-03-WO-011
	80-03-WO-012
	80-03-WO-013
	80-03-WO-014
	80-03-WO-015
	80-03-WO-016
EXAMS TYPICAL FOR PMP 80-04, 80-23 & 80-24	

NOTES:

1) THIS DRAWING IDENTIFIES COMPONENTS SUBJECT TO INSERVICE INSPECTION EXAMINATIONS AS REQUIRED BY ASME SECTION XI AND DEFINED IN THE NMPC INSEVICE INSPECTION PLAN.

2) THIS DRAWING IS INTENDED FOR USE IN THE INSERVICE INSPECTION PLAN ONLY.

REFERENCES:

- WORTHINGTON 15HH-277-4S
- COMP DRAWING VW-14421,-DEN-17378
- SECTION XI, CLASS 2
- SECTION XI BOUNDARY DIAGRAM, F-63012-C SHEET 2
- VENDOR MANUAL - N1V31500PUMP001
- WELD MAP DRAWING F-45183-C SHEETS 15, 15A, 15B, 15C

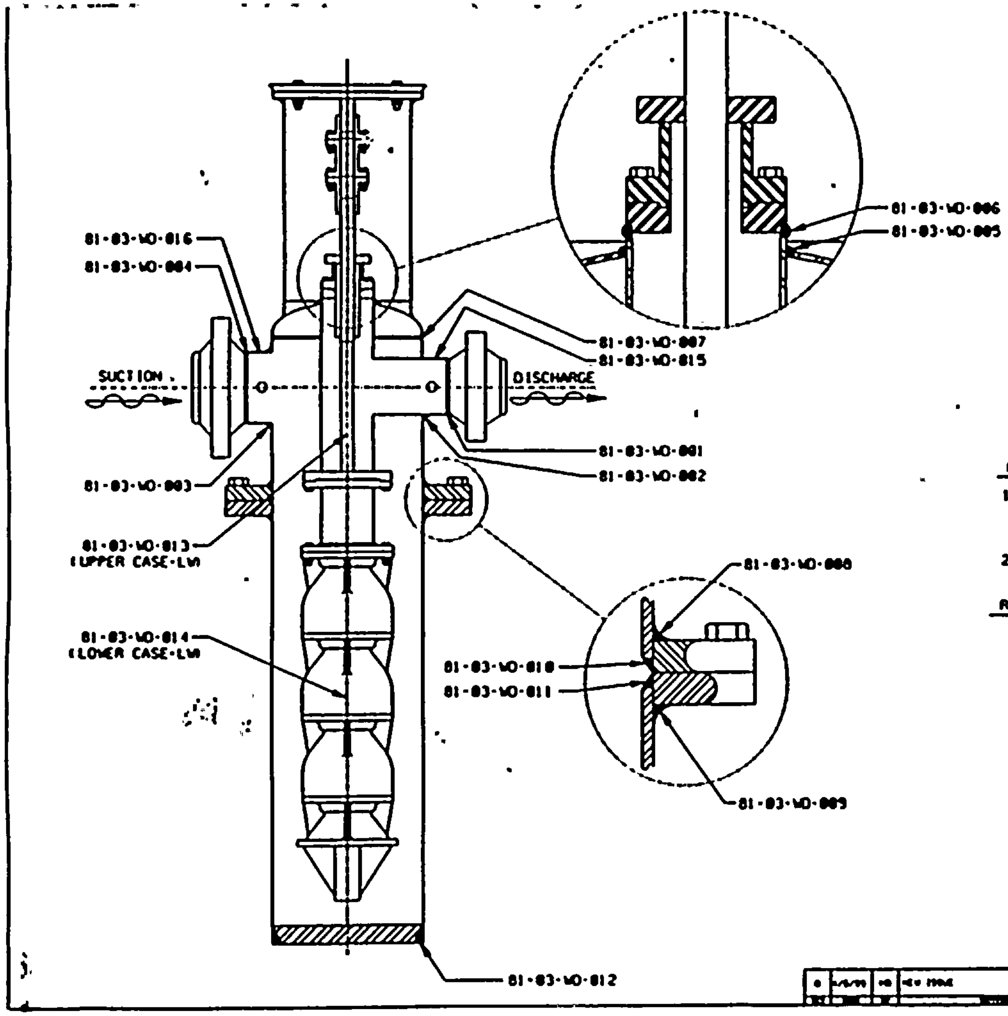
NOTE: THIS DRAWING WAS CREATED USING COMPUTER AIDED DRAFTING DO NOT MAKE MANUAL CHANGES

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION UNIT
COMPONENT DETAIL DRAWING
VERTICAL PUMP
INSERVICE INSPECTION PROGRAM

SCALE NONE

ISI-PUMP-002

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-7



COMP ID	EXAM ID
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	81-03-WO-007
	81-03-WO-008
	81-03-WO-009
	81-03-WO-010
	81-03-WO-011
	81-03-WO-012
	81-03-WO-013
	81-03-WO-014
	81-03-WO-015
	81-03-WO-016
EXAMS TYPICAL FOR PMP 81-04, 81-23 & 81-24	

NOTES:

1) THIS DRAWING IDENTIFIES COMPONENTS SUBJECT TO INSERVICE INSPECTION EXAMINATIONS AS REQUIRED BY ASME SECTION XI AND DEFINED IN THE NMPC INSEVICE INSPECTION PLAN.

2) THIS DRAWING IS INTENDED FOR USE IN THE INSERVICE INSPECTION PLAN ONLY.

REFERENCES:

- WORTHINGTON 15HH-277-4S
- COMP DRAWING VW-14421, -DEN-17378
- SECTION XI, CLASS 2
- SECTION XI BOUNDARY DIAGRAM, F-63007-C SHEET 1
- VENDOR MANUAL - N1W31500PUMP001
- WELD MAP DRAWING F-45183-C SHEETS 13, 13A, 13B, 13C

NOTE: THIS DRAWING WAS CREATED USING COMPUTER AIDED DRAFTING DO NOT MAKE MANUAL CHANGES

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION UNIT

COMPONENT DETAIL DRAWING

VERTICAL PUMP

INSERVICE INSPECTION PROGRAM

DATE 4/8/99 SCALE NONE

ISI-PUMP-003

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-8

A. **ARTICLE IDENTIFICATION:**

Article IWA-4000	Repair Procedures
Article IWA-6000	Records and Reports
Article IWA-7000	Replacement

B. **ARTICLE REQUIREMENTS:**

IWA-4800 The records required by IWA-6000 shall be completed for all repairs.

IWA-7520(8) Completed Owner's Report for Repairs or Replacements, Form NIS-2

IWA-6210(c) The Owner shall prepare inservice inspection summary report for Class 1 and 2 pressure retaining components and their supports.

IWA-6220(c) Inservice Inspection summary reports shall be required at the completion of each inspection conducted during a refueling outage. Examinations, tests, replacements, and repairs conducted since the preceding summary report shall be included.

IWA-6220(d) Each summary report shall contain the following:

(2) Owner's Report for Inservice Inspection, Form NIS-1

(3) Owner's Report for Repair or Replacement, Form NIS-2

IWA-6230 Within 90 days of the completion of the inservice inspection conducted during each refueling outage, the Owner shall file ISI Summary Reports with the enforcement and regulatory authorities.

C. **RELIEF REQUESTED:**

Pursuant to 10 CFR 50.55a(a)(3)(i), NMPC requests Relief from the following:

1. Preparation of the Owner's Report for Inservice Inspection, Form NIS-1
2. Preparation of the Owner's Report for Repair or Replacement, Form NIS-2.
3. Submittal of the summary report within 90 days following completion of the inservice inspection conducted during each refueling outage.

D. **BASIS FOR RELIEF:**

NMPC feels that the summary report required by IWA-6000 does not contain the information necessary to assure compliance with Code requirements, and therefore does not provide a compensation increase in the quality and/or safety at NMP1.

The summary report does not furnish evidence of compliance with the ASME Boiler and Pressure Vessel Code, Section XI, Inspection Program B, percentage requirements as mandated by IWB-2412, IWC-2412, and IWD-2412.

Class 3 components are excluded from the summary report Submittal.

Both a Final Report and Summary Report must be prepared, reviewed and approved in order to comply with Sub-articles IWA-6220 and IWA-6310 respectively.

The preparation, review, approval and certification of each record and report, within the time frame of 90 days following completion of each refueling outage, increases substantially the costs associated with inservice inspection activities, and puts an unreasonable time constraint on NMPC without an increase in assurance of Code compliance.

Code Case N-532, "Alternative Requirements to Repair and Replacement Documentation requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000, Section XI Division 1", has not been published in Regulatory Guide 1.147, dated May 1999 "Inservice Inspection Code Case Acceptability ASME Section XI, Division 1", however, the USNRC staff has approved it's use at other nuclear stations.

The information provided in the documentation pertaining to the use of Code Case N-532, can be used in the same manner to assess the safety implications of Code activities performed during the outage. A review using the information as prescribed by the Code Case will, therefore, provide the same or improved level of quality and safety as reviews that may be conducted using the Code reporting requirements.

E. ALTERNATIVE EXAMINATIONS OR TESTS:

As an alternate to the requirements of IWA-4800, IWA-6000, and IWA-7528(8), NMPC will implement ASME Code Case N-532, "Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000[1], Division 1", (Note: 1 - ASME 1992 Edition Section XI).

IMPLEMENTATION SCHEDULE:

The Alternate requirements of ASME Code Case N-532 will be incorporated into NMPC Inservice Inspection Program during the 3rd Ten-Year Interval.

G. ATTACHMENTS TO THE RELIEF:

ASME Code Case N-532, "Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000, Division 1".

Approval Date: December 12, 1994
See Numeric Index for expiration and any reaffirmation dates.

Case N-532
Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000[1]
Section XI, Division 1

Inquiry: What alternatives may be used to the requirements of IWA-4910(d) and IWA-6210(e) for completion of Form NIS-2 following repair or replacement, and IWA-6210(c) and (d), IWA-6220, IWA-6230(b), (c), and (d), and IWA-6240(b) for preparation and submittal of the inservice summary report and Form NIS-1?

Reply: It is the opinion of the Committee that as an alternative to the requirements of IWA-4910(d), IWA-6210(c), (d), and (e), IWA-6220, IWA-6230(b), (c), and (d), and IWA-6240(b), the following provisions may be used. This Case shall be utilized at least until the end of the inspection period in which it was invoked.

1.0 CERTIFICATION OF THE REPAIR OR REPLACEMENT

(a) The Owner's Repair/Replacement Program shall identify use of this Case.

(b) A Repair/Replacement Plan shall be prepared in accordance with IWA-4140[1], and shall be given a unique identification number.

(c) Upon completion of all required activities associated with the Repair/Replacement Plan, the Owner shall prepare a REPAIR/REPLACEMENT CERTIFICATION RECORD, FORM NIS-2A.

(d) Form NIS-2A shall be presented to the Inspector for certification.

(e) The completed Form NIS-2A shall be maintained by the Owner.

(f) The Owner shall maintain an index of Repair/Replacement Plans in accordance with IWA-6340. The index shall identify the identification number required by (b) above the inspection interval and period during which each repair or replacement was completed.

2.0 OWNER'S ACTIVITY REPORT PREPARATION AND SUBMITTAL

An OWNER'S ACTIVITY REPORT FORM OAR-1 shall be prepared and certified upon completion of each refueling outage. Each Form OAR-1 prepared during an inspection period shall be submitted following the end of the inspection period. Each Form OAR-1 shall contain the following:

(a) Abstract of applicable examinations and tests with the information and format of Table 1.

(b) A listing of item(s) with flaws or relevant conditions that required evaluation to determine acceptability for continued service, whether or not the flaw or relevant condition was discovered during a scheduled examination or test. The listing shall provide the information in the format of Table 2.

(c) Abstract for repairs, replacements and corrective measures performed, which were required due to an item containing a flaw or relevant condition that exceeded IWB-3000, IWC-3000, IWD-3000, IWE-3000, IWF-3000, or IWL-3000 acceptance criteria; even though the discovery of the flaw or relevant condition that necessitated the repair, replacement or corrective measure, may not have resulted from an examination or test required by this Division. If acceptance criteria, for a particular item is not specified in this Division, the provisions of IWA-3100(b) shall be used to determine which repairs, replacements, and corrective measures are required to be included in the abstract. The abstract shall provide the information in the format of Table 3.

[1] All references to IWA-4000 and IWA-6000 used in this Case refer to the 1992 Edition.

FORM NIS-2A REPAIR/REPLACEMENT CERTIFICATION RECORD

OWNER'S CERTIFICATE OF CONFORMANCE

I certify that the ______________ (repair or replacement) represent by Repair/Replacement

Plan number ______________ conforms to the requirements of Section XI.

Type Code Symbol Stamp ______________

Certificate of Authorization No. ______________ Expiration Date ______________

Signed ______________ (Owner or Owner's Designee, Title) Date ______________

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 number ______________ during the period ______________ to ______________, 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.

______________ (Inspector's Signature) Commissions ______________ (National Board, State, Province, and Endorsements)

Date ______________

This form (E00126) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number ______________________________

Owner ______________________________
(Name and Address of Owner)

Plant ______________________________
(Name and Address of Plant)

Unit No. ____________ (if applicable) Commercial service date ____________ Refueling outage no. ____________

Current inspection interval ______________________________
(1st, 2nd, 3rd, 4th, other)

Current inspection period ______________________________
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable t the inspectin plan ______________________________

Date and revision of inspection plan ______________________________

Edition and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan ______________________________

____

SAMPLE

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owner's Activity Report are correct, and that the examinations, tests, repairs, replacements, evaluations, and corrective measures represented by this report conform to the requirements of Section XI.

Certificate of Authorization No. ____________ (if applicable) Expiration Date ____________

Signed ____________ Owner or Owner's Designee, Title Date ____________

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, during the period ____________ to ____________, 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 examinations, tests, repairs, replacements, evaluations and corrective measures described 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 the connected with this inspection.

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

Date ____________

This form (E00127) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

TABLE 1
ABSTRACT OF EXAMINATIONS AND TESTS

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks

TABLE 2
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED EVALUATION FOR CONTINUED SERVICE

Examination Category	Item Number	Item Description	Flaw Characterization (IWA-3300)	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)

TABLE 3
ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes/No)	Date Completed	Repair/ Replacement Plan Number

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-9

A. **ARTICLE IDENTIFICATION:** IWF-5000

Class:	Quality Group A, B and C, (ASME Code Class 1, 2 and 3)
Identification of Components:	Mechanical and Hydraulic Snubbers
Systems:	All

B. **EXAMINATION REQUIREMENTS:**

ASME B&PV Code, Section XI, Article IWF-5000 1989 Edition invokes the snubber examination requirements of Standard OMa-1988, Part 4, Section 2.3.2.2 which states that "examinations shall be conducted at 18-month intervals" and specifies schedule changes if unacceptable snubbers are revealed. Section 2.3.2.3 of Standard OMa-1988 requires that subsequent examinations for any given failure group not be lengthened more than one increment at a time.

C. **RELIEF REQUESTED:**

Relief is requested from performance of visual inspections of snubbers at 18-month intervals, and the associated schedule changes if unacceptable snubbers are revealed, as required by IWF-5000 which invokes Standard OMa-1988 Part 4, Section 2.3.2.2. Relief from the "Subsequent Examination Schedule Adjustment" of OMa-1988 Section 2.3.2.3 is also requested.

D. **BASIS FOR RELIEF:**

The 18-month snubber visual inspection schedule as it appears in Standard OMa-1988, Part 4, Section 2.3.2.2 assumes that refueling intervals will not exceed 18 months, and is based only on the number of unacceptable snubbers found during the previous visual inspection, irrespective of the size of the snubber population. The 18-month inspection interval is incompatible with current operating cycle lengths of 24 months. Due to the large number of snubbers in use at the Nine Mile Point plant, the OMa schedule and snubber selection method is excessively restrictive and resource intensive. Performance of these inspections during power operation, as would be necessary under the OMa 18-month inspection interval, would result in expenditures of significant resources and would subject plant personnel to unnecessary radiological exposure with no commensurate increase in quality or safety. As concluded by the USNRC staff in Generic Letter 90-09, the proposed alternative inspection maintains the same confidence level in snubber operability. The proposed alternative is compatible with the current 24-month operating cycle and generally will allow inspections to be performed during plant outages, thereby reducing radiological exposure of plant personnel.

Relief from Section 2.3.2.3, "Subsequent Examination Schedule Adjustment" is also requested since the schedule adjustment specified in this Section of the standard is based on the examination intervals of Section 2.3.2.2. of OMa-1988.

In addition to the ASME Code, Section XI requirements, Shock Suppressors (Snubbers) surveillance requirements are addressed in Plant Technical Specifications 3.6.4/4.6.4. The requirements of the Technical Specifications snubber visual inspections and testing provides the necessary assurance for snubber operability and visual examination requirements to fulfill the ASME Code, Section XI requirements without duplicating the inspections.

The proposed alternative inspection conforms with USNRC Generic Letter 90-09.

E. ALTERNATIVE EXAMINATIONS OR TESTS:

Examinations of snubbers will be performed at intervals and sampling rates in accordance with the requirements specified in Generic Letter 90-09, "Alternative Requirements for Snubber Inspection Intervals and Corrective Actions", December 11, 1990. This proposed alternative is based upon the number of unacceptable snubbers found during the previous inspection, the total population or category size for each snubber type, and the previous interval. Specifically, the visual inspection interval will be determined based upon the following criteria:

Population Category	Column A[3] Extended Interval	Column B[4] Repeat Interval	Column C[5] Reduce Interval
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25

The next visual inspection interval for the population of a snubber category shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based on their accessability during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. This decision shall be made and documented before any inspection and used as the basis upon which to determine the next inspection interval for that category.

Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. The next lower integer for the value or limit for Columns A, B, C shall be used if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

The standard 25% extension on surveillance intervals is applicable to any examination interval determined in accordance with this alternative.

All inservice inspection (VT-3 examinations) of snubbers shall be performed per the requirements of the Nine Mile Point Unit 1 Technical Specifications.

F. **IMPLEMENTATION SCHEDULE:**

The proposed alternative inspection will be implemented during the third 10-year inspection interval.

G. **ATTACHMENTS TO THE RELIEF:**

None

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-10

A. **COMPONENT IDENTIFICATION:**

Class:	All
Identification of System:	All

B. **CODE REQUIREMENTS:**

Article IWA-4000 welding and brazing procedure qualification requirements.

(a) All welding shall be performed in accordance with Welding Procedures Specifications that have been qualified by the Owner or repair organization in accordance with the requirements of the codes specified in the Repair Program in accordance with IWA-4120.

C. **RELIEF REQUESTED:**

Pursuant to 10 CFR 50.55a(a)(3)(ii), NMPC requests Relief from the requirements of ASME Section XI, Article IWA-4000, IWA-4400.

D. **BASIS FOR RELIEF:**

The basis for this relief is to implement ASME Code Case N-573, which eliminates the redundancy currently required by the Code for each organization to independently qualify all welding procedures even though they have met the qualification process at another facility. Code Case N-573 recognizes and addresses this fact and proposes an alternative which maintains an acceptable level of quality and safety.

E. **ALTERNATIVE EXAMINATIONS OR TESTS:**

The following alternative testing requirements will be implemented as defined by ASME Section XI Code Case N-573, Transfer of Procedure Qualification Records Between Owners, Section XI, Division 1.

1. NMPC will perform a technical review of the supplying Owner's PQR

2. The supplying Owner will state in writing that the PQR was performed under an acceptable Nuclear Quality Assurance program that meets ASME Section XI, IWA-1400 and that it was performed in accordance with ASME Section IX.

3. NMPC will generate a NMPC WPS using the variables established in the supplied PQR(s). NMPC PQR's may supplement these or other Owner supplied PQR's.

4. The WPS will be approved and signed by NMPC.

5. The WPS will be demonstrated successfully by NMPC by completing a welder performance qualification test using the parameters of the NMPC WPS.

6. NMPC will not transfer the supplied PQR to any other Owner.

7. NMPC will document the use of this Code Case on the appropriate NIS-2 form.

F. **IMPLEMENTATION SCHEDULE:**

The Alternate requirements of ASME Code Case N-573 will be incorporated into the NMPC Inservice Inspection Program during the 3rd Ten-Year Interva, or until Code Case N-573 is approved for general use by reference in Regulatory Guide 1.147. After that time, NMPC will follow the conditions, if any specified in the regulatory guide.

G. **ATTACHMENTS TO THE RELIEF:**

ASME Code Case N-573, Transfer of Procedure Qualification Records Between Owners, Section XI, Division 1 Pressure Test of Containment Penetration Piping, Section XI, Division 1.

Approval Date: March 12, 1997
See Numerical Index for expiration and any reaffirmation dates.

Case N-573
Transfer of Procedure Qualification Records Between Owners
Section XI, Division 1

Inquiry: What alternatives to the welding and brazing procedure qualification requirements of IWA-4000 may be used?

Reply: It is the opinion of the Committee that as an alternative to the welding and brazing procedure qualification requirements of IWA-4000, a procedure qualification record (PQR) qualified by one Owner may be used by another Owner. When this alternative is used, the following requirements shall be met:

(a) The Owner that performed the procedure qualification test shall certify, by signing the PQR, that testing was performed in accordance with Section IX.

(b) The Owner that performed the procedure qualification test shall certify, in writing, that the procedure qualification was conducted in accordance with a Quality Assurance Program that satisfies the requirements of IWA-1400.

(c) The Owner accepting the completed PQR shall accept responsibility for obtaining any additional supporting information needed for WPS development.

(d) The Owner accepting the completed PQR shall document, on each resulting WPS, the parameters applicable to welding. Each WPS shall be supported by all necessary PQR's.

(e) The Owner accepting the completed PQR shall accept responsibility for the PQR. Acceptance shall be documented by the Owner's approval of each WPS that references the PQR.

(f) The Owner accepting the completed PQR shall demonstrate technical competence in application of the received PQR by completing a performance qualification test using the parameters of a resulting WPS.

(g) The Owner may accept and use a PQR only when it is received directly from the Owner that certified the PQR.

(h) Use of this Case shall be shown on the NIS-2 form documenting welding or brazing.

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-11

A. COMPONENT IDENTIFICATION

System: 00.0 Reactor Pressure Vessel

Class: Quality Group A (ASME Code Class 1)

Component Description: Reactor Pressure Vessel Closure Head Nuts

B. ASME SECTION XI EXAMINATION REQUIREMENTS

ASME Section XI, Table IWB-2500-1, Examination Category B-J, "Pressure Retaining Bolting, Greater Than 2 Inch In Diameter, Examination Item Number B6.10 , "Reactor Vessel Closure Head Nuts ", requires 100% surface examination.

C. RELIEF REQUESTED

Pursuant to 10 CFR 50.55a (a)(3)(i), NMPC requests relief from performing a 100% surface (magnetic particle) examination of the sixty-four (64) Reactor Pressure Vessel Closure Head Nuts as required by Table IWB-2500-1.

D. BASIS FOR RELIEF

Due to the closure head nuts distinct size and geometric configuration, surface (magnetic particle) examination methods as required by IWB-2500-1 (89 Edition), added considerable costs associated with removal, preparation (both post and pre-cleaning), and examination time with little or no compensating increase in the quality and safety of the plant.

The 1989 Edition of Section XI does not provide acceptance criteria for the mandated surface examination of Table IWB-2500-1.

ASME Section XI subcommittee recognized this minimal increase in quality by mandating a surface examination over a visual examination, The 1989 Addenda, Table IWB-2500-1 was changed by requiring a Visual (VT-1) examination of the Reactor Vessel Closure Head Nuts, which also referenced acceptance criteria for VT-1 examination of bolting greater than 2 inches.

Both the visual and magnetic particle examination address the examination on the surface of the component. The additional subsurface depth of the magnetic particle examination over the visual examination of the surface does not provide a substantial increase in the level of quality and safety.

E. ALTERNATIVE EXAMINATIONS

NMPC proposes to utilize the Visual VT-1 examination requirements and acceptance criteria of the 1989 Addenda of Section XI for Reactor Vessel Closure Head Nuts, in lieu of the surface examination requirements of the 1989 Edition with no acceptance criteria.

The extent of examination performed will provide an acceptable level of quality and safety.

F. IMPLEMENTATION SCHEDULE

Third Inservice Inspection Interval

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-12

A. COMPONENT IDENTIFICATION

System: Various

Class: Augmented Quality Group A, (ASME Code Class 1)

Component Description: Nonconforming Service Sensitive Piping Welds.

B. AUGMENTED INSERVICE INSPECTION GUIDELINES (NUREG 0313, REVISION 1, JULY 1980, AND USNRC GENERIC LETTER 84-11)

NUREG 0313, Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping (Reference 11), requires augmented volumetric and surface examination of nonconforming service-sensitive piping welds.

C. RELIEF REQUESTED

Relief is requested from performing full volumetric and surface examination of nonconforming service sensitive piping welds. Relief is requested for twenty-one (21) of the augmented piping welds.

D. BASIS FOR RELIEF

The welds listed on the attached Table were not fully examined by volumetric and/or surface examination methods during the first and second 10-year interval due to limitations of design, geometry, and material of construction.

The dendritic weld structure of the stainless steel material can result in both sound redirection and attenuation phenomena which limit ultrasonic interrogation. Thus, such welds necessitate examination from both sides in order to be fully examined. In particular, non-parallel surfaces and product form of the material and product form of the material of valves preclude meaningful ultrasonic examination from the valve side.

Four (4) stainless steel welds continue to be limited by configuration, two (2) by permanent attachment to the piping and fifteen (15) by containment penetrations. The percentage of weld required area (WRA) and Weld Required Volume (WRV) that was completely examined is tabulated with the nature of the obstruction on the attached Table.

Per NUREG-0313, the Core Spray System (40) piping is defined as nonconforming service sensitive; the extent and frequency of examination is 100% of those welds every outage. Other system welds that had been selected for this augmented examination program were also examined each outage and thus had been more frequently inspected than required by NUREG-0313.

E. ALTERNATE EXAMINATION

Perform ultrasonic and surface examinations to the extent practical.

Perform a Visual (VT-2) examination of the inaccessible IGSCC Category welds each refueling outage for evidence of leakage per NMPC submittal dated July 28, 1988 and September 4, 1990 commitment.

The examinations as proposed, together with the other pressure tests (as applicable) provide an acceptable level of assurance of nonconforming service sensitive piping weld integrity.

G. USNRC STATUS

Pursuant to 10 CFR 50.55a(g)(6)(i), this request for relief was granted per USNRC Safety Evaluation, dated April 6, 1994, TAC No. M83099, for the second inspection interval.

Approval of this request for relief for the second inspection interval also included a submittal dated July 28, 1988 and September 4, 1990, that committed to performing a visual examination of the inaccessible IGSCC Category welds each refueling outage for evidence of leakage.

NINE MILE POINT UNIT 1
THIRD INSERVICE INSPECTION INTERVAL
RELIEF REQUEST ISI-12

COMPONENT IDENTIFICATION	COMPONENT DESCRIPTION	EXAMINATION METHOD	EXTENT EXAMINED	LIMITATION
40-WD-050-A	VALVE 40-12 TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-14
40-WD-010A	VALVE 40-02 TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-13A
40-WD-005	PIPE TO ELBOW	UT/PT	WRV 58% WRA 86%	PERMANENT HANGER OBSTRUCTION
40-WD-006	PIPE TO PIPE	UT/PT	WRV 82%	PERMANENT HANGER INTERFERENCE
40-WD-011	ELBOW TO PIPE	UT/PT	WRV 31% WRA 25%	INACCESSIBLE INSIDE PENETRATION X-14
40-WD-051	PIPE TO ELBOW	UT/PT	WRV 50%	INACCESSIBLE INSIDE PENETRATION X-14
37-WD-003	REDUCER TO FLANGE	UT/PT	0%	FITTING CONFIGURATION
39-09R-WD-001	VALVE 39-09R TO PENETRATION	UT/PT	0%	CONFIGURATION
39-10R-WD-001	VALVE 39-10R TO PENETRATION	UT/PT	0%	CONFIGURATION
39-WD-194	VALVE 39-05 TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-5B
39-WD-194A	PIPE TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-5B
39-WD-226	VALVE 39-06 TO PIPE	UT/PT	0%	CONFIGURATION
39-WD-226A	PIPE TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-5A
38-WD-007	PIPE TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-8
38-WD-008	PIPE TO VALVE 38-02	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-8
38-WD-087	VALVE 38-12 TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-7
38-WD-088	PIPE TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-7
33-WD-014	PIPE TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-9
33-WD-036	PIPE TO ELBOW	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-154
33-WD-035	VALVE 33-03 TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-154
33-WD-015	VALVE 33-04 TO PIPE	UT/PT	0%	INACCESSIBLE INSIDE PENETRATION X-9