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1	1	Letter	Inservice Inspection Examination Plan Revision 4	

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NORTHERN STATES POWER CO - MINNESOTA
MONTICELLO 4TH INTERVAL

INSERVICE INSPECTION
EXAMINATION PLAN



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414 NICOLLET MALL
MINNEAPOLIS, MN 55401

MONTICELLO NUCLEAR GENERATING PLANT
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INSERVICE INSPECTION
EXAMINATION PLAN
REVISION 4

FOURTH INTERVAL
MAY 1, 2003 THROUGH MAY 31, 2012

Reviews and Approvals: PCR-01125788
Approval Date: 6-5-2010

RECORD OF REVISIONS

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Note: The revision numbers reflect section-specific revisions. Drawings in Section 1.6 retain their own drawing specific revision number. However, the governing revision of all sections is the ISI Plan Revision listed on the Review and Approval page.

RECORD OF REVISIONS (cont'd)

Summary of Changes, Plan Revision 1

Title Page	Modified Interval start date to May 1, 2003 and noted Revision 1
Page i	Noted Rev. 1 for affected sections
Page ii	Added page for Summary of Changes, Revision 1
Page 1.2-1	4th Ten Year Interval <ul style="list-style-type: none">• Updated revised 3rd Interval extension dates• Added discussion regarding overlap of 3rd and 4th Intervals• Changed 4th Interval start dates Component Selection <ul style="list-style-type: none">• Added requirement for examination of re-used CRD Bolting
Page 1.2-2	Code Edition Summary <ul style="list-style-type: none">• Added requirement for examination of re-used CRD Bolting• Removed reference to NF (Supports). NF not applicable, supports are examined per Subsection IWF• Modified Appendix VIII Section to reflect latest modification of Appendix VIII implementation per 10CFR50.55a and remove references to specific Supplements and implementation dates
Page 1.2-3	Examination Personnel / Procedures <ul style="list-style-type: none">• clarified description of examination personnel and procedure requirements.• Clarified to reflect additional use of Mandatory Appendix VIII requirements for UT personnel and procedures as modified by 10CFR50.55a dated September 26, 2002, except where relief has been granted.• Removed reference to Appendix VIII – Supplements.
Page 1.3-1	Removed reference to unpublished Reg. Guide 1.147 Rev. 13 (Draft Reg. Guide 1091)
Section 1.4	Modified entire section to remove references to Code Cases listed as approved or conditionally approved in unpublished Draft Reg. Guide 1091, but not found in published Reg. Guide 1.147, Rev. 12.

Summary of Changes, Plan Revision 2

- Title Page** Modified revision number and revised titles/names
- Page i** Changed Revision Number and pages for affected sections
- Pages iii & iv** Added pages for Summary of Changes, Revision 2
- Page 1.2-1** Background:
- Format / spacing changes
- 4th Ten Year Interval
- Format / spacing changes
 - Changed number of scheduled outages from Six to Five
 - Removed reference to maintenance outages
- Component Selection
- Format / spacing changes
- Page 1.2-2** Code Edition Summary
- Added provisions for implementation of approved ISI Relief Request #7 to use 2001 Edition of Section XI for Repair/Replacement activities and associated Pressure Testing. NRC exception noted. (see Corrective Action Program OTH020219)
- Background for Plan / Schedule Development
- changed intent of scheduling from "subject to allowing meaningful accumulation of service time for new components" to "to the extent practical"
- Page 1.2-3** ISI Plan Overall Description
- Added RI-ISI to the description of how components are listed in the Plan and Schedule
 - Capitalized Item Number
- Page 1.2-4** ISI Plan Overall Description (cont'd)
- Added "Rev. B-A" to TR-112657
- Page 1.3-1** Source Documents
- Added 1995 Edition, 1995 Addenda of Section XI
 - Added 2001 Edition, No Addenda of Section XI

Summary of Changes, Plan Revision 2 (cont'd)

- Page 1.3-2** Source Documents (cont'd)
- Added NRC SER for Relief Request #7
- Page 1.5-1** Relief Requests
- Added Relief Request No.7
- Page 1.5-35** Relief Request No.2
- Added Clarification in title regarding italicized text
- Page 1.5-48** Relief Request No.3
- added Reference 11, NRC SER Title for Relief Request No.3
 - updated Status as approved
- Page 1.5-53** Relief Request No.5
- updated Status as approved and listed NRC SER Title for Relief Request No.5
- Page 1.5-56** Relief Request No.6
- added Reference 4, NRC SER Title for Relief Request No.6
 - updated Status as approved
- Page 1.5-57** Relief Request No.7
- added Relief Request No. 7 including NRC exceptions

Summary of Changes, Plan Revision 3

- Title Page** Modified revision number and revised titles/names
- Page i** Changed revision number and pages for affected sections and added note discussing applicability of revision numbers
- Pages v - viii** Added pages for Summary of Changes, Revision 3
- Page 1.2-1** 4th Ten-Year Interval
- clarification of 3rd Interval extension and overlap of 3rd and 4th Intervals
- Component Selection
- Added reference to ASME Section XI Code Case N-598 applied to per-period percentage requirements
- Page 1.2-2** Code Edition Summary
- Class 1 (Quality Group A), clarified description
 - Class 1 CRD Bolting, removed reference to augmented program GE SIL. No. 483R2 for examination of B7.80 items. 10CFR50.55a requires use of 1995 Edition for reused CRD bolting.
 - Class 2 (Quality Group B), clarified description
 - Appendix VIII – Mandatory, updated to include subsequent publications of 10CFR50.55a
 - Repair/Replacement..., added further restrictions invoked by 10CFR50.55a effective November 1, 2004
- Page 1.2-3** Examination Personnel / Procedures
- updated to include subsequent publications of 10CFR50.55a
- Page 1.3-1** Source Documents
- Changed 1995 Edition, 1995 Addenda of Section XI to 1995 Edition, No Addenda
 - Updated 10CFR50.55a to current reference in Federal Register
 - Updated Reg. Guide 1.147 to Rev.13
 - Added EWI-09.04.00
 - Deleted letters regarding 3rd Interval Relief Requests (RR) 8 and 13
 - Added Jan. '03 letter regarding further extension of 3rd Interval
 - Added Dec. '02 letter requesting NRC review of 4th Interval relief requests included with ISI Plan submittal

Summary of Changes, Plan Revision 3 (cont'd)

- Page 1.3-2** Source Documents (cont'd)
- Added letter for ISI Plan, Rev.2
 - Deleted letter regarding 3rd Interval RR 14
 - Added cross-reference to 3rd Interval RR 12 (4th Interval RR 2)
 - Added NRC SER for RR 3 and 6
 - Added NRC SER for RR 5
 - Added date to NRC SER for RR 7
 - Added NRC SER for RR 8
 - Added NRC SER for RR 9 (Fleet RR)
 - Added NRC SER for RR 10 (Fleet RR)
 - Added NMC Letter to NRC for RR 11 (Fleet RR)
- Page 1.4-1 thru 1.4-6** Section XI Code Cases
- Added reference to Rev.13 of Reg. Guide 1.147
 - Added discussion that currently applied Code Cases are underlined
 - Completely updated list for Code Cases that are applied to the ISI Plan. Also included Code Cases that would be beneficial if needed on a case by case basis, but have not been implemented for use to date.
- Page 1.5-1 thru 1.5-2** Relief Requests
- Added RR 8, 9, 10 and approval dates
 - Added RR 11 submittal (pending approval)
 - Added approval dates to RR 3, 4, 5, 6, 7
 - Clarification for notes regarding RR 1 and 2
- Page 1.5-50 thru 1.5-54** Relief Request No.4
- Replaced original submittal with updated final submittal and reference to NRC approval
- Page 1.5-77 thru 1.5-82** Relief Request No.8
- Added final submittal and reference to NRC approval
- Page 1.5-83 thru 1.5-107** Relief Request No.9
- Added final submittal and reference to NRC approval

Summary of Changes, Plan Revision 3 (cont'd)

Page 1.5-108 Relief Request No.10
thru 1.5-113

- Added final submittal and reference to NRC approval

Page 1.5-114 Relief Request No.11
thru 1.5-118

- Added final submittal

Page 1.6-1 Boundary and Isometric Drawing Index
thru 1.6-4

- Updated to show current revision / status

ISI Boundary Drawings and ISI Class 1, 2, and 3 Isometric Drawings

- Updated multiple drawings for editorial corrections, piping configuration changes, and elimination of systems

Page 1.7-1 Inspection Plan and Table
thru 1.7-4

- Periods, updated period start / end dates
- Scheduled Outages, updated with current outage schedule
- Scheduled Outages, added Code Case N-598 for per-period percentage requirements
- Note 3, added "to the extent practical"
- Note 4, removed reference to GE SIL 483 and updated with requirements from 10CFR50.55a
- Note 6, added with exam requirements for Code Cat. B-G-2, Item B6.180
- Note 7 p, added further definition
- Note 7 l, added further definition
- Pressure Testing Note A, added details re: restructuring of the Plan and scheduling of Class 1 System Pressure Tests.
- Pressure Testing Note B, added details re:restructuring of the Plan and scheduling of Class 2 System Pressure Tests.
- Pressure Testing Note D, updated from Code Case N-488-1 to N-498-4
- Pressure Testing Note E, previously reserved, applied for Code Case N-522
- Pressure Testing Note F, added details regarding restructuring of the Plan and scheduling of Class 2 System Pressure Tests.
- NDE Note AA, clarified exam is performed near the end of the Interval.

Summary of Changes, Plan Revision 3 (cont'd)

4th Interval Plan, Component Examination Schedule

- Updated to reflect current status of examination status
- Updated to reflect inactivation of eliminated systems per Design Change 02Q195 (RPV Head Spray Removal) and 03Q145 (CGCS System Removal)
- Updated to include integrally welded attachments (B-K, C-C, or D-A) which were previously examined under the IWF category, or were exempted from examination in the 3rd ISI Interval. (see CA 022418, CA 020622, CAP 029634)
- Updated schedule to reflect incorporation of Code Case N-598
- Updated schedule for proportional examination of support by system and function (SA 021615, CAP 036901, CA 023866)
- Updated schedule for applied Code Cases (SA 021615, CAP 036901, CA 023866)
- Updated schedule to optimize examination requirements for "multiple" Class 1 and 2 components ((SA 021615, CAP 036901, CA 023866)
- Updated schedule for items permitting deferral to end of interval (SA 021615, CAP 036901, CA 023866)
- Updated schedule with other miscellaneous changes from SA 021615 and minor self-identified discrepancies.

Summary of Changes, Plan Revision 4

Title Page	Modified revision number and company information
Page i	Changed revision number and pages for affected sections
Pages x - xi	Added pages for Summary of Changes, Revision 4
Page 1.2-1	Background: <ul style="list-style-type: none">• Updated company information• Added references to the Snubber and BWRVIP Programs Component Selection <ul style="list-style-type: none">• Deleted reference to 10CFR50.55a(b)(2)(xi) that was deleted from the regulation• Corrected editorial error - deleted incorrect reference to 1995 Addenda for applicable to Item B7.80
Page 1.2-2	Code Edition Summary <ul style="list-style-type: none">• Class 1 (Quality Group A), deleted reference to 10CFR50.55a(b)(2)(xi) that was deleted from the regulation• Class MC (Metal Containment), updated code of record to 2001 Edition with 2003 Addenda• Appendix VIII – updated to include 2001 Edition referenced in subsequent publications of 10CFR50.55a
Page 1.2-4	ISI Plan Overall Description <ul style="list-style-type: none">• Added reference to non-Code exams for welds on drawing NC-ISI-51
Page 1.2-4	Added new section, License Renewal Aging Management Plans and Commitments <ul style="list-style-type: none">• Listed applicable Program Basis Documents / Aging Management Plans and applicable commitments• Added new subsection for Augmented Program to examine Class MC supports per Subsection IWF requirements• Added new subsection for Augmented Program to examine Class 1 small bore piping \leq NPS 2 and $<$ NPS 4
Page 1.3-1	Source Documents <ul style="list-style-type: none">• Deleted 1992 Edition, 1992 Addenda of Section XI• Added 2001 Edition with 2003 Addenda for IWE

Summary of Changes, Plan Revision 4 (cont'd)

Page 1.3-3, -5 Source Documents

- Added reference NRC Commitment M97025A
- Added reference to NUREG-1865 for License Renewal
- Added reference to RI-ISI first period update
- Added source documents related to relief requests 12 – 19
- Added references to applicable License Renewal PBD/AMPs and NRC Commitments

Page 1.4-1, -7 Code Cases

- Updated list for Code Cases published in RG 1.147, Rev.15 used, or potential for use at MNGP.
- Updated list for Code Cases that have been applied, or are proposed to be applied, via Relief Requests.

Page 1.5-1, -2 Relief Requests

- Updated list with proposed, submitted, and approved dates, as applicable.
- Updated list with Relief Requests 12 – 19.

Page 1.5-118 through 1.5-246

- Added Relief Requests 12 - 19
- Updated list with Relief Requests 12 – 19.

Section 1.6 ISI Boundary/Isometric Drawings

- Updated several drawings for applicable system modifications and editorial corrections
- Added new drawings for Class MC Supports

Section 1.7 Inspection Plan and Schedule Tables

- Added table to describe the Item Numbers applied to Risk-Informed ISI components (Category R-A)
- Added new components to schedule table for Class MC Supports
- Updated schedule to current exam and scheduling status

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INTRODUCTION

Background:

The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code (hereafter referred to as ASME Section XI, Section XI, or the Code), Section XI Inservice Inspection (ISI) Program is prepared and maintained by the Northern States Power Company - Minnesota (NSPM). The Inservice Testing Program (IST) is maintained separately from this program and is submitted under separate cover. The Containment Inspection Program, as allowed by 10CFR55a(g)(6)(ii)(B), and the Repair/Replacement Program are maintained separately from this program, and, although they are not submitted, they are available at the plant site for audit and review. The Snubber Program and Boiling Water Reactor Internals Project (BWRVIP) Program are also maintained separately from this plan.

4th Ten-Year Interval:

The Monticello 4th Ten-Year Inservice Inspection Interval is slightly less than 120 months due to an extension of the 3rd Interval (Letters to the NRC in May 2002 and January 2003 providing notification of 3rd Interval extension initially through March 8, 2003 (M2002057) and subsequently through May 31, 2003 (L-MT-03-004). The 4th Interval overlapped the 3rd Interval as permitted by IWA-2430(d)(1),(2),(3), and (4) The 4th Interval start date is May 1, 2003 and end date is May 31, 2012. Five refueling outages are currently scheduled in this time frame.

Component Selection:

With the exception of Class 1 and 2 piping welds, components within the examination plan were selected and scheduled using criteria in the 1995 Edition of ASME Section XI with the 1996 Addenda (Inspection Program B and Code Case N-598) and 10CFR50.55a(g)(6)(ii)(A), except where relief has been requested. Per 10CFR50.55a(b)(2)(xxi)(B) reused CRD Bolting must meet examination requirements for Table IWB-2500-1, Category B-G-2, Item B7.80 of ASME Section XI 1995 Edition.

Selection of Class 1 and Class 2 piping welds in ASME Categories B-F, B-J, C-F-1 and C-F-2 are based on EPRI Topical Report 112657 Rev. B-A. "Revised Risk Informed Inservice Inspection Evaluation Procedure." The Risk Informed Class 1 and Class 2 application was also conducted in a manner consistent with ASME Code Case N-578 "Risk Informed Requirements for Class 1, 2, and 3 Piping, Method B." The use of the RI-ISI program was approved for use on July 27, 2002. (reference TAC MB3819 and Relief Request #1 for 4th ISI Interval)

INTRODUCTION (cont'd)

Code Edition Summary: The code editions implemented in the ISI Program can be summarized as follows:

Class 1 (Quality Group A)	1995 Edition with 1996 Addenda, Risk-Informed Program for Class 1 Piping Category B-F and B-J (Relief #1),
Class 1 CRD Bolting (B7.80)	10CFR50.55a(b)(2)(xxi)(B) specifies 1995 Edition for examination requirements of reused CRD Bolting
Class 2 (Quality Group B)	1995 Edition with 1996 Addenda, Risk-Informed Program for Class 2 Piping Category C-F-1 and C-F-2 (Relief #1)
Class 3 (Quality Group C)	1995 Edition with 1996 Addenda
MC (Metal Containment)	2001 Edition with 2003 Addenda, Subsection IWE
Appendix VIII - Mandatory	1995 Edition with 1996 Addenda through 2001 Edition as modified by 10CFR50.55a dated September 26, 2002 and subsequently published Final Rules
Repair / Replacement and associated Pressure Test	2001 Edition with No Addenda per ISI Relief Request No.7. NRC exception: must use IWA-4540(c) of the 1998 edition in lieu of the 2001 Edition requirement. Additional restrictions for the 2001 Edition include prohibited use of IWA-4340 (10CFR50.55a(b)(2)(xxv)) and IWA-2220 (10CFR50.55a(b)(2)(xxii))

INTRODUCTION (cont'd)

Background for Plan/Schedule Development: The examination plan and schedule was developed from ASME Code requirements, Risk-Informed Methodology, individual component examination history and plant scheduling needs such as optimizing insulation removal and scaffolding needs. During the 2nd Interval, a substantial number of component replacements and alterations were made (e.g. the recirculation piping replacement). The intent of the 4th Interval scheduling was to be consistent with the 2nd and 3rd Interval, to the extent practical. For Class 1 (category B-F and B-J) and Class 2 Category C-F-1 and C-F-2) Piping Welds examined per the RI-ISI Plan, there may be little schedule correlation with previous ISI Intervals.

Examination Personnel / Procedures: Inservice Inspection examination procedures and personnel certifications meet the requirements specified in the 1995 Edition of ASME Section XI with the 1996 Addenda. Additionally, UT personnel and procedures meet the requirements of Mandatory Appendix VIII as modified by 10CFR50.55a dated September 26, 2002 and subsequently published Final Rules, except where relief has been granted.

Reporting of Associated Section XI Programs: The Section XI Repair and Replacement Program, System Pressure Tests and Snubber Functional Tests are administered under separate program documents. Although these programs are administered separately, the activities required by the Repair and Replacement Program, System Pressure Tests and Snubber Functional Tests are reported in the "Inservice Inspection Summary Report" following each refueling outage.

ISI Plan Overall Description: The ASME Section XI Inservice Inspection Program is comprised of six parts: Introduction, Source Documents, Requests for Relief, ISI Boundary Drawings, ISI Isometric Drawings, and a table containing the Inservice Inspection Examination Plan and Schedule. The ISI Boundary Drawings outline Quality Group Classifications, (A, B and C). The ISI Isometric Drawings delineate ASME Section XI components or items that are included in the examination program.

The Inservice Inspection Examination Plan and Schedule lists the ASME Section XI components by Isometric Drawing Number, System, Code or RI-ISI Category, Code or RI-ISI Item, Component Description and Required Examination. The Examination Plan and Schedule identify the ASME Section XI Item Number listed in Tables IWB-2500-1, IWC-2500-1, IWD-2500-1 and Subsection IWF, and Item Number for Risk Informed Tables as identified in EPRI TR-112657, thus identifying the examination method. The examination schedule lists the

INTRODUCTION (cont'd)

anticipated period and outage for the examination of a given component. The examination schedule is intended to be flexible to allow for deviations in outage length and outage work scope. Therefore, the schedule may be changed, as allowed by the Code, without further notification. Examination distribution was developed in accordance with IWA-2432, Inspection Program B.

The examination plan and schedule also contains certain non-code items to be examined, or examinations beyond Section XI Code requirements. These augmented items include licensee-initiated examinations on NC-7879-6/Tank, NC-ISI-51/W-11, W-12, W-13, and NC-ISI-37/W-1, W-2, W-3, W-4, W-12, W-12A shown in the plan and schedule. These items will be examined to the extent practical in accordance with the Section XI Code, 1995 Edition with 1996 Addenda, not the RI-ISI Program. Relief requests will not be submitted for these non-code exams if Section XI Code requirements cannot be met. Non-code exams are also subject to change without prior notification to the NRC.

The Monticello Plant was built prior to the implementation of Section XI Access Requirements. As a result, some components that require examination may not be completely accessible. Welds selected for examination under the Risk Informed Program were selected base on risk ranking, radiation area, and weld accessibility as allowed by EPRI TR-112657 Rev. B-A.

LICENSE RENEWAL AGING MANAGEMENT PLANS AND COMMITMENTS

This document supports the implementation of the following Renewed License Aging Management Programs and Commitments:

- PBD/AMP-004, Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless Steel (CASS) Program
- PBD/AMP-022, Primary Containment In-Service Inspection Program
- PBD/AMP-024, ASME Section XI, Subsection IWF
- PBD/AMP-033, ASME Section XI, Inservice Inspection, Subsection IWB, IWC, and IWD
- PBD/AMP-034, Reactor Head Closure Studs
- PBD/AMP-035, BWR Vessel ID Attachment Welds Program
- PBD/AMP-036, BWR Feedwater Nozzle
- PBD/AMP-037, BWR Control Rod Drive Return Nozzle
- PBD/AMP-038, BWR Stress Corrosion Cracking Program
- PBD/AMP-039, BWR Penetrations Program
- NRC Commitments M05008A, M05009A, M05010A, M05011A, M05020A, M05021A, and M05022A

CLASS MC SUPPORTS

As required by License Renewal Commitment M05011A, Class MC Supports will be examined per the requirements of Subsection IWF. The following Class MC Supports are included in an augmented program:

- Torus/ Ring Header Seismic Restraints
- Drywell Male and Female Stabilizers
- Shield Stabilizers
- Torus Columns
- Torus Saddles
- Vent System Supports
- Downcomer Bracing

SMALL BORE CLASS 1 PIPING

As required by License Renewal to manage aging effects, examination of Small Bore Piping (Ref. USAR Appendix K, Section K2.1.2) has been added as an augmented program to the ISI Plan. The weld population includes W-1 through W-7 on ISI drawing ISI-786A and W-32 through W-34 on ISI drawing ISI-74215A.

- Augmented volumetric examinations of welds are performed on Class 1 stainless steel small bore piping butt welds \geq NPS 2 to < NPS 4. The exams are performed in support of License Renewal and **SHALL** be performed through the Renewed License period of extended operation.
- The base scope of approximately 10% of the population will be examined during each ISI interval.
- Examination personnel **SHALL** be certified to ASME Section XI, Appendix VIII as modified by 10CFR50.55a.
- The weld volume applicable to Cat. B-F or B-J will be used for the examination. Welds will be examined to the extent practical. If limitations are encountered that do not permit coverage of essentially 100%, a 10CFR50.55a request (relief request) is not required.
- Welds will be evaluated in accordance with IWB-3000 requirements applicable to Cat. B-F or B-J.

FEEDWATER NOZZLES

As required by License Renewal Commitments M05020A, M05021A, and M05022A to manage aging effects, Reactor Vessel Feedwater Nozzle examinations will be performed in accordance with the requirements of General Electric Report NE-523-A71-0594-A, Rev.1 (Ref. USAR Appendix K, Section K2.1.8). The report requires volumetric examinations of specified zones in accordance with ASME Section XI Appendix VIII (as modified by 10CFR50.55a).

RI-ISI Periodic Update Summary

As a condition of NRC approval to implement Risk-Informed ISI (RI-ISI), Monticello made a commitment that *'Risk ranking of piping segments will be reviewed and adjusted on an ASME period basis.'* (reference 4th Interval ISI Relief Request -1 and Commitment M01003A).

To meet the commitment, MNGP obtained the Electric Power Research Institute (EPRI) to perform this review in 2007 for activities applicable to Period 1 of the 4th Interval. The purpose of the review was to determine if the methodology and conclusions applied to the original program implementation are still valid, or to determine if conditions have changed to a degree significant enough to warrant changes to the continued implementation of the RI-ISI program.

This review compared the parameters originally used to generate the RI-ISI evaluation against the same or similar parameters as they were at the conclusion of Period 1.

Examples of pertinent parameters:

1. Original scope of application compared to current scope,
2. Original PRA model used for consequence evaluation compared to current PRA model.
3. Original key inputs, assumptions, and references from the degradation mechanism (DM) evaluation reviewed to validate continued applicability,
4. Original DM evaluation and failure potential compared to actual service history and examination results, along with industry operating experience (OE) since implementation of RI-ISI to validate continued applicability,
5. Plant design changes (modifications and alterations) implemented since the original RI-ISI evaluation reviewed for possible impact on component RI-ISI classification that would necessitate programmatic changes,
6. Original risk-ranking reviewed using information based on results of 1-5 above, to validate continued applicability,

7. Original element selection, including meeting established sampling percentages, reviewed using information from 1-6 above to validate continued conformance with requirements.

The following review items from the report are summarized as follows:

1. The overall scope of the RI-ISI application has not changed: Class 1 and 2, Category B-F, B-J, C-F-1, and C-F-2 piping welds only.
2. The current PRA model is significantly more detailed than the original model, particularly the internal flooding study. However, review of the new PRA information indicates that the original consequence rankings are not impacted by the changes to updated PRA inputs. As a result, no changes to the program are warranted.
3. Service history, examination results, and system characteristics for Period 1 were reviewed to validate the basis of the failure potential and DM evaluations. Two conditions were identified that impacted the pressure boundary:
 - Piping downstream of MO-2008 and MO-2009, examined as part of the site's FAC Program, was confirmed to be susceptible to Erosion-Cavitation. Therefore, the original threshold for E-C susceptibility of <100 operational hours/year can no longer be applied to these segments. The threshold change actually has no impact on the program since the segments are already included in, and monitored in accordance with, the FAC Program.
 - CRD insert and withdrawal piping crack indications were identified in the 1998 and 2000 outages, prior to implementing RI-ISI. Followup examinations conducted in 2003 did not identify any new issues. Therefore, there is no impact on the program

Review of other inputs into the DM susceptibility was conducted. System design requirements (other than those mentioned in 2 above), operating characteristics, the strategic water chemistry plan implementation, and insulation requirements (RG1.36) have not changed, and there is no new industry OE that was not bounded by the original evaluation. Therefore no program changes are warranted.

Enhanced criteria for determining a location's susceptibility to crevice corrosion (C-C) was applied to welds/areas located on three sets of reactor nozzle piping with tuning fork style safe ends: reactor recirculation inlet nozzles (10 welds), core spray inlet nozzles (2 welds), and feedwater inlet nozzles (8 welds). These were originally classified as susceptible to C-C, however the enhanced criteria determined that a mechanical crevice

is not present, therefore they are not considered susceptible to C-C. This affected the risk ranking of the welds and their DM susceptibility, moving them from R-A (High) to R-A (Medium), and from DM=C-C to DM=None. Although the risk ranking and DM susceptibility changed, they remained selected for examination to ensure Class 1 weld inspection population continued to meet the requirements of EPRI TR-112657 Section 3.6.4.2 (not substantially below 10% of the population).

4. The original risk-ranking results are based on consequence assessment and DM evaluation. Except for the minor changes that had already been made to the program for the Rx Head Spray and CGC system removal and the application of the enhanced C-C criteria to the nozzle safe end locations, there have been no other impacts to the risk-ranking. Therefore, no further changes are required.
5. Design changes impacted program components, i.e. Reactor (Rx) Head Spray and Combustible Gas Control (CGC) system removals, and replacement of piping downstream of MO-2008, but only effected the population of welds, and had no other impacts on the RI-ISI application. These changes were reviewed through the site ASME Section XI Repair/Replacement Program and the RI-ISI Plan was updated accordingly. No additional changes to the program are warranted.
6. The original element selection process ensured that the appropriate percentages were selected for each risk ranking group:
 - 25% of R-A (High)
 - 10% of R-A (Medium)
 - R-A (Low) does not require examination
 - Class 1 weld population: if the above criteria do not result in 10% of the Class 1 weld population being selected, the resulting percentage is not substantially below 10%.The review concluded that percentage requirements are being met, and no further changes are required.

Conclusion of Period 1 Update Review:

- The Monticello RI-ISI application is a Class 1 and 2 only applications. As such, it is typical that there are little to no changes required of the program as a result of the update process. The EPRI review confirmed this assumption as there were some, but not significant, changes to the RI-ISI program. All necessary changes have been captured through the site's processes and have been incorporated into the RI-ISI Program. Therefore, no further changes are required.

Source Documents:

The following referenced source documents described and listed below are basis documents used and applicable to the Monticello 4th Interval ISI Plan.

ASME BPV Code Section XI, 1995 Edition with 1996 Addenda

ASME BPV Code Section XI, 1995 Edition with No Addenda

ASME BPV Code Section XI, 2001 Edition with No Addenda

ASME BPV Code Section XI, 2001 Edition with 2003 Addenda, Subsection IWE

10CFR50.55a, Industry Codes and Standards (69FR58804)

10CFR-50.55a(g)(6)(ii)(A)(64FR51370) ASME Section XI, 1995 Edition with 1996 Addenda, Appendix VIII Supplements

10CFR-50.55a(g)(6)(ii)(A)(66FR16391) ASME Section XI, 1995 Edition with 1996 Addenda, Appendix VIII Supplement 4 Length Sizing Correction

Regulatory Guide 1.147, Rev. 13, Jan 2004

Monticello Inservice Inspection Licensee Control Program, 4 AWI-09.04.00

Monticello ASME Section XI Inservice Inspection Program, EWI-09.04.00

GE Nuclear Services Information Letter, SIL. No. 483R2 "CRD Cap Screw Crack Indications," September 5, 1992

Generic Letter 88-01 & NUREG 0313, Rev 2 (IGSCC (M88080A, M88082A)

**Note: All Monticello welds meet NUREG-0313, Rev. 2. Category A

Monticello Notification Letter to NRC, "Notification of Extension of 3rd Ten-Year Inservice Testing and Inservice Inspection Intervals," May 30, 2002

Monticello Notification Letter to NRC, "Change to Inservice Testing Program Plan and Inservice Inspection Examination Plan 10-Year Intervals," January 23, 2003

Monticello Letter to NRC, "Request for Review and Approval of Relief Requests Associated with Fourth 10-Year Interval Inservice Inspection Examination Plan Submittal," December 6, 2002

Source Documents: (cont'd)

Monticello Letter to NRC, "Monticello Fourth Interval Inservice Inspection Examination Plan, Revision 2," September 16, 2004

NRC Letter, "Monticello Nuclear Generating Plant – Risk-Informed Inservice Inspection Program (TAC MB3819)," July 24, 2002 (Relief Request #1 for 4th ISI Interval)

NRC Letter, "MNGP-Evaluation of Relief Request No. 12 (for the 3rd 10-Year ISI Program Plan," (TAC No. MB0261), July 27, 2001 (4th Interval ISI Relief Request No.2)

NRC Letter, "Relief Request Nos. 3 and 6 for the Fourth 10-Year Interval of the Inservice Inspection Examination Plan" (TAC No. MB6896), March 28, 2003

NRC Letter to Nuclear Management Company, "Fourth 10-Year Interval Inservice Inspection Program Plan Relief Request No. 5" (TAC No. MB6956), June 9, 2003

NRC Letter, "Monticello Nuclear Generating Plant – Fourth 10-Year Interval Inservice Inspection Program Plan Relief Request No. 7 (TAC NO. MB6897)," October 3, 2003

NRC Letter, "Monticello Nuclear Generating Plant – One-Time Inservice Inspection Program Plan Relief Request No. 8 For Leak Testing The "B" And "G" Main Steam Safety Relief Valves (TAC No. MB9538)," June 13, 2003

NRC Letter, "Duane Arnold Energy Center, Monticello Nuclear Generating Plant, Prairie Island Nuclear Generating Plant, Units 1 and 2, Kewaunee Nuclear Power Plant, Point Beach Nuclear Plant, Units 1 and 2, Palisades Nuclear Plant Re: Request for Alternatives to American Society of Mechanical Engineers (ASME) Section XI, Appendix VIII, Supplement 10 (TAC NOS. MC0814, MC0816, MC0820, MC0821, MC0815, MC0818, MC0819 AND MC0817)," February 26, 2004 (MNGP ISI Relief Request No.9)

NRC Letter, "Duane Arnold Energy Center and Monticello Nuclear Generating Plant Re: Request for Authorization to Utilize Code Case N-613-1 (TAC Nos. MC2374 and MC2375)," October 6, 2004 (MNGP ISI Relief Request No.10)

NMC Letter to NRC, "10 CFR 50.55a Request GR-04-01; Request For Authorization To Utilize Code Case N-661(L-HU-04-027)," July 28, 2004, (Proposed MNGP ISI Relief Request No.11)

EPRI Report TR-112657, Rev B-A, "Revised Risk-Informed Inservice Inspection Evaluation Procedure," December 1999

Source Documents: (cont'd)

NRC Commitment M97025A " Response to LER 97-004, Failure to Submit Relief Requests for Limited Inservice Inspection Examinations, dated March 24, 1997." Limited Examination Relief Requests submitted within 12 months.

EPRI Report "Risk-Informed Inservice Inspection (RI-ISI) Update – 2007, Monticello Nuclear Generating Plant," dated January 30, 2008

NUREG-1865 "Safety Evaluation Report, Related to the License Renewal of the Monticello Nuclear Generating Plant, Docket No. 50-263 "

NMC Letter to NRC "10CFR50.55a Request No. 12: Proposed Alternative for Visual Examination Illumination Levels in Accordance with 10CFR 50.55a(a)(3)(i)," dated August 11, 2005 (Proposed MNGP ISI Relief Request No. 12)

NRC letter "Monticello Nuclear Generating Plant – Denial of Alternative for Visual Examination Illumination Levels for the Fourth 10-Year Inservice Inspection Interval (TAC NO. MC8102)," February 8, 2006 (MNGP ISI Relief Request No. 12)

NMC Letter to NRC "10CFR 50.55a Request No. 13: Relief from Impractical Examination Coverage Requirements Pursuant to 10CFR 50.55a(g)(5)(iii) for the Fourth Ten-Year Inservice Inspection Interval," dated September 27, 2005. (Proposed MNGP ISI Relief Request No. 13)

NRC letter "Monticello Nuclear Generating Plant (MNGP) – Fourth 10-Year Interval Inservice Inspection (ISI) Program Plan, Relief Request No. 13 (TAC NO. MC8882)," dated July 18, 2006.

NMC Letter to NRC "Request For Authorization To Utilize Code Case N-513-2," dated December 12, 2005 (Proposed MNGP ISI Relief Request No. 14). NOTE that after this relief request was approved, Code Case N-513-2 was approved in Regulatory Guide 1.147 Rev 15 and therefore this Relief Request is no longer needed.

NRC letter "Duane Arnold Energy Center, Monticello Nuclear Generating Plant, Palisades Nuclear Plant, Point Beach Nuclear Plant, Units 1 and 2, Prairie Island Nuclear Generating Plant, Units 1 and 2 – Use of ASME Code Case N-513-2 (TAC NOS. MC9478 Through MC9484)," dated July 3, 2006. (MNGP ISI Relief Request No. 14).

Source Documents: (cont'd)

NMC Letter to NRC "10CFR 50.55a Request No. 15: Relief from Impractical Examination Coverage Requirements Pursuant to 10 CFR 50.55a(g)(5)(III) for the Fourth Ten-Year Inservice Inspection Interval," dated September 26, 2007. (Proposed MNGP ISI Relief Request No. 15).

NRC letter "Monticello Nuclear Generating Plant (MNGP) – Granting of Relief Regarding Limited Ultrasonic Examination Coverage of Five Welds (TAC NO. MD6854)," dated May 19, 2008. (MNGP ISI Relief Request No. 15)

Xcel Energy Letter to NRC "10 CFR 50.55a Request No. 16: Alternative to Nozzle-to-Vessel Weld and Inner Radius Examinations," dated March 12, 2010. (Proposed MNGP ISI Relief Request No. 16)

Xcel Energy Letter to NRC "10 CFR 50.55a Request 17: Extension of Permanent Relief from Volumetric Examination of Reactor Pressure Vessel Circumferential Shell Welds for Renewed Operating License Term," dated March 12, 2010. (Proposed MNGP ISI Relief Request No. 17).

Xcel Energy Letter to NRC "10 CFR 50.55a Request 18: Alternative to Apply ASME Code Case N-705 to the Standby Liquid Control System Tank", dated April 2, 2010. (Proposed MNGP ISI Relief Request No. 18)

NRC Email to Xcel Energy, "Monticello-Record of Conference Call Conveying Verbal Approval of Relief Request No. 18 (TAC-ME 3593)", dated April 23, 2010.

Xcel Energy Letter to NRC "10 CFR 50.55a Request No. 19: Relief from Impractical Examination Coverage Requirements Pursuant to 10 CFR 50.55a(g)(5)(iii) for the Fourth Ten-Year Inservice Inspection Interval," dated May 6, 2010. (Proposed MNGP ISI Relief Request No. 19).

NRC Commitment M05008A (Passport AR 00829849) – MNGP site-specific administrative work instructions will be applicable to both safety and non-safety related systems, structures and components that are subject to an aging management review consistent with the current licensing basis during the period of extended operation.

NRC Commitment M05009A (Passport AR 00829851) – Site documents that implement aging management activities for license renewal will be enhanced to ensure that an AR is prepared in accordance with plant procedures whenever non-conforming conditions are found (i.e., the acceptance criteria is not met)

Source Documents: (cont'd)

NRC Commitment M05010A (Passport AR 00829853) – Revisions will be made to procedures and instructions that implement or administer aging management programs and/or activities for the purpose of managing the associated aging effects for the duration of extended operation.

NRC Commitment M05011A (Passport AR 00829856-01) – The MNGP ASME Section XI, Subsection IWF Program will be enhanced to provide inspections of Class MC components consistent with NUREG-1801, Chapter III, Section B1.3.

NRC Commitment M05020A (Passport AR 00829890-01) – The BWR Feedwater Nozzle Program will be enhanced so the parameters monitored and inspected are consistent with the recommendations of GE NE-523-A71-0594-A Revision 1.

NRC Commitment M05021A (Passport AR 00829893-01) – The BWR Feedwater Nozzle Program will be enhanced so the regions being inspected; examinations techniques, personnel qualifications, and inspection schedule are consistent with the recommendations of GE NE-523-A71-0594-A, Revision 1.

NRC Commitment M05022A (Passport AR 00829895-01) – The BWR Feedwater Nozzle Program will be enhanced so that inspections will be scheduled per recommendations of GE NE-523-a71-0594-A, Revision 1.

USAR Appendix K, Renewed Operating License – USAR Supplement, Items (K2.1.33, K2.1.3, K2.1.26, K2.1.2, K2.1.28, K2.1.11, K2.1.8, K2.1.7, K2.1.10, K2.1.9, and K5)

NUREG-1865, Safety Evaluation Report Related to the License Renewal of the Monticello Nuclear Generating Plant; dated October 2006 (SER sections 3.03.2.2, 3.0.3.2.3, 3.03.2.6, 3.0.3.2.7, 3.0.3.2.8, 3.0.3.2.9, 3.0.3.2.10, 3.0.3.1.6, 3.0.3.1.7, 3.0.3.1.8)

Section XI Code Cases:

The following listed Code Cases are permissible for use at Monticello during the 4th Interval per Reg. Guide 1.147, Rev. 15. The examination schedule will reflect Code Case implementation on an item or category basis, as applicable. Those that are currently applied are underlined in the listing below.

<u>Code Case N-307-3</u>	Revised Ultrasonic Examination Volume for Class I Bolting, Table IWB-2500-1, Examination Category B-G-1, When the Examinations are Conducted from the End of the Bolt or Stud, or from the Center-Drilled Hole
<u>Code Case N-460</u>	Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1
<u>Code Case N-491-2</u>	Rules for Examination of Class 1, 2, 3, and MC Component Supports of Light-Water Cooled Power Plants, Section XI, Division 1 (not used for scheduling – used for evaluation provisions on an as-needed basis)
<u>Code Case N-498-4</u>	Alternative Rules for 10 Year System Hydrostatic Testing for Class 1, 2, and 3 Systems. (Applicable to Class 3, Category D-B only)
<u>Condition of Use for Code Case N-498-4</u>	Prior to conducting the VT-2 examination of Class 2 and Class 3 components not required to operate during normal plant operation, a 10-minute holding time is required after attaining test pressure. Prior to conducting the VT-2 examination of Class 2 and Class 3 components required, provided the system has been in operation for at least 4 hours for insulated components or 10 minutes for non-insulated components.
Code Case N-504-3	Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping.

Section XI Code Cases: (cont'd)

<u>Condition of Use for Code Case N-504-3</u>	The provisions of Section XI, Nonmandatory Appendix Q, "Weld Overlay Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping Weldments, must also be met.
<u>Code Case-508-3</u>	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing
<u>Code Case N-513-2</u>	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping (This Code Case was previously approved in Relief Request #14. Relief Request #14 is no longer required)
Code Case N-517-1	Quality Assurance Program Requirements for Owners
<u>Code Case N-522</u>	Pressure Testing of Containment Penetration Piping (applies to subset of Class 2 piping only)
Code Case N-526	Alternative Requirements for Successive Inspections of Class 1 and 2 Vessels
Code Case N-528-1	Purchase, Exchange, or Transfer of Material Between Nuclear plant Sites
Condition of Use for Code Case N-528-1	The requirements of 10 CFR Part 21 are to be applied to the nuclear plant site supplying the material as well as to the nuclear plant site receiving the material that has been purchased, exchanged, or transferred between sites.
Code Case N-532-4	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 Code Cases: (cont'd)

Code Case N-534	Alternative Requirements for Pneumatic Pressure Testing
Code Case N-537	Location of Ultrasonic Depth Sizing Flaws
Code Case N-545	Alternative Requirements for Conduct of Performance Demonstration Detection Test of Reactor Vessel
<u>Code Case N-546</u>	Alternative Requirements for Qualification of VT-2 Examination Personnel
<u>Condition of Use for Code Case N-546</u>	This Code Case is applicable only to the performance of VT-2 examinations and may not be applied to other VT-2 functions such as verifying the adequacy of procedures and training VT-2 personnel
<u>Code Case N-552</u>	Alternative Methods—Qualification for Nozzle Inside Radius Section from the Outside Surface
<u>Condition of Use for Code Case N-552</u>	To achieve consistency with the 10CFR50.55a rule change published September 22, 1999, incorporating Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," to Section XI; add the following to the Specimen requirements: "At least 50 percent of the flaws in the demonstration test set must be cracks and the maximum misorientation must be demonstrated with cracks. Flaws in nozzles with bore diameters equal to or less than 4 inches may be notches. Add to detection criteria, "The number of false calls must not exceed three."
Code Case N-555	Use of Section II, V, and IX Code Cases

Section XI Code Cases: (cont'd)

Code Case N-566-2	Corrective action for leakage Identified at Bolted Connections. (SBLC System only)
Code Case N-578*	Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method B, Section XI, Division 1 (* Not approved by Reg. Guide 1.147, Rev.15, but referenced by Relief Request #1 on page 1.5-2 for Class 1 and 2 piping welds, Category B-F, B-J, C-F-1, and C-F-2)
Code Case N-583	Annual Training Alternative
Condition for Use for Code Case N-583	(1) Supplement practice shall be performed on material or welds that contain cracks, or by analyzing prerecorded data from material or welds that contain cracks (2) The training must be completed no earlier than 6 months prior to performing ultrasonic examinations at a licensee's facility
Code Case N-586-1	Alternative Additional Examination Requirements for Class 1, 2, and 3 Piping, Components, and Supports
Code Case N-592	ASNT Central Certification Program
Code Case N-597-2	Requirements for Analytical Evaluation of Pipe Wall Thinning
Condition of Use for Code Case N-597-1	(lengthy list of conditions for use, see Reg. Guide 1.147 for conditions)
<u>Code Case N-598</u>	Alternative Requirements to Required Percentages of examinations (Applied to exam categories in Tables IWB-2412-1, IWC-2412-1, IWD-2412-1, IWE-2412-1, and IWF-2410-2 with exceptions noted in subparagraph (a))

Section XI Code Cases: (cont'd)

<u>Code Case N-601</u>	Extent of Frequency of VT-3 Visual Examination for Inservice Inspection of Metal Containments (Applied to IWE Program, approved for use per Relief Request MC-7)
Code Case N-606-1	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique for BWR CRD Housing/Stub tube repairs
Condition of Use for Code Case N-606-1	Prior to welding, an examination or verification must be performed to ensure proper preparation of the base metal, and that the surface is properly contoured so that an acceptable weld can be produced. The surfaces to be welded, and surfaces adjacent to the weld, are to be free from contaminants, such as, rust, moisture, grease, and other foreign material or any other condition that would prevent proper welding and adversely affect the quality or strength of the weld. This verification is to be required in the welding procedures.
<u>Code Case N-613-1*</u>	Ultrasonic Examination of Full Penetration Nozzles in Vessels, Exam Cat. B-D, Item No. B3.90, Reactor Nozzle-to-Vessel Welds, Figs. IWB-2500-7(a), (b), and (c) (This code case was previously approved in Relief Request #10. Relief Request #10 is no longer required).
Code Case N-624	Successive Inspections
Code Case N-638	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique

Section XI Code Cases: (cont'd)

<u>Code Case N-639</u>	Alternative Calibration Block Material
<u>Condition of Use for Code Case N-639</u>	Chemical ranges of the calibration block may vary from the materials specification if (1) it is within the chemical range of the component specification to be inspected, and (2) the phase and grain shape are maintained in the same ranges produced by the thermal process required by the material specification.
<u>Code Case N-640</u>	Alternative reference Fracture Toughness for Development of P-T Limit Curves
Code Case N-652-1	Alternative Requirements to Categorize B-G-1, B-G-2, and C-D Bolting Examination Methods and Selection Criteria
<u>Code Case N-661</u>	Alternative Requirements for Wall Thickness Restoration of Classes 2 and 3 Carbon Steel Piping for Raw Water Service (This Code Case was previously approved under Relief Request #11. Relief Request #11 is no longer required).
<u>Condition of Use for Code Case N-661</u>	(a) If the root cause of the degradation has not been determined, the repair is only acceptable for one cycle. (b) Weld overlay repair of an area can only be performed once in the same location. (c) When through-wall repairs are made by welding on surfaces that are wet or exposed to water, the weld overlay repair is only acceptable until the next refueling outage
Code Case N-685	Lighting Requirements for Surface Examination
Code Case N-700	Alternative Rules for Selection of Classes 1, 2, and 3 Vessel Welded Attachments for Examination

Section XI Code Cases: (cont'd)

Code Case N-702* Alternative Requirements for Boiling Water
Reactor (BWR) Nozzle Inner Radius and
Nozzle-to-Shell Welds (Not approved in Reg.
Guide 1.147, Rev.15, but referenced by Relief
Request #16, submitted, but not yet approved)

Code Case N-705* Evaluation Criteria for Temporary Acceptance
of Degradation in Moderate Energy Class 2 or
3 Vessels and Tanks (Not approved in Reg.
Guide 1.147, Rev.15, but referenced by Relief
Request #18, submitted, but not yet approved)

Requests for Relief

<u>Relief Request No.</u>	<u>Description</u>	<u>Rev.</u>
1*	Risk Informed Inservice Inspection Plan (Approved July 24, 2002 for 4th Interval)	0
2**	Reactor Vessel Circumferential Welds (Approved July 27, 2001 for remainder of current 40-Year Operating License through Sept. 8, 2010)	1
3	Appendix VIII Supplement 4 (Approved March 28, 2003)	0
4	Leakage at Bolted Control Rod Drive (CRD) Housing Connections (Approved June 9, 2003)	0
5	Leakage at Bolted Control Rod Drive (CRD) Housing Connections (Approved June 9, 2003)	0
6	Appendix VII Annual Training (Approved March 28, 2003)	0
7	Use of 2001 Edition for Repair/Replacement Program (Approved October 3, 2003)	0
8	One-time Relief, Class 1 Pressure Test at Less Than System Operating Pressure, Mechanical Joint (Approved June 13, 2003)	0
9	Use of Alternative Requirements for Appendix VIII, Supplement 10 as implemented by PDI (NMC Fleet Relief Request) (Approved February 26, 2004)	0
10	Use of Code Case N-613-1 (NMC Fleet Relief Request) (Approved October 6, 2004) (Relief Request is no longer needed. Code Case approved for use by NRC in Reg. Guide 1.147 Rev. 15)	0
11	Use of N-661 (NMC Fleet Relief Request) (Approved March 8, 2005) (Relief Request is no longer needed. Code Case approved for use by NRC in Reg. Guide 1.147 Rev. 15)	0

Requests for Relief

<u>Relief Request No.</u>	<u>Description</u>	<u>Rev.</u>
12	Alternative for Visual Examination Illumination Levels (Denial February 8, 2006)	0
13	Relief from Impractical Examination Coverage Requirements (Approved July 18, 2006)	0
14	Authorization to Utilize Code Case N-513-2 (Approved July 3, 2006) (Relief Requests is no longer needed. Code Case approved for use by NRC in Reg. Guide 1.147 Rev. 15)	0
15	Relief from Impractical Examination Coverage Requirements (Approved May 19, 2008)	0
16	Alternative to Nozzle-to-Vessel Weld and Inner Radius Examinations, Use of Code Case N-702 (Proposed, submitted March 12, 2010)	0
17	Extension of Permanent Relief from Volumetric Examination of Reactor Pressure Vessel Circumferential Shell Welds for the Renewed Operating License Term (Proposed, Submitted March 12, 2010)	0
18	Alternative to Apply ASME Code Case N-705 to the Standby Liquid Control System Tank (Proposed, submitted April 2, 2010) (Verbal Approval of Relief Request No. 18 (TAC-ME 3593)", dated April 23, 2010)	0
19	Relief from Impractical Examination Coverage Requirements (Proposed, submitted May 6, 2010)	0

* Relief No. 1 was approved for the 4th ISI Interval for implementation on the start date of the 4th ISI Interval.

** Relief No. 2 was approved during the 3rd ISI Interval and is approved for the remaining time in the current operating license, including the 4th ISI Interval. It has been revised slightly to correct a weldname nomenclature error and update commitment statements made in Rev. 0.

Monticello Unit 1 - ISI Relief Request No. 1 (Rev. 0)

Risk Informed Inservice Inspection Plan

System:	Various	Class:	1 and 2
Category:	B-F	Item:	ALL
	B-J		ALL
	C-F-1		ALL
	C-F-2		ALL

Alternative Examination Requirements:

Monticello has implemented Risk Informed Inservice Inspection program for Class 1 and Class 2 piping welds in accordance with EPRI Topical Report TR-112657 Rev. B-A, Final Report, December 1999.

Basis for Relief:

See attached Risk Informed Program Plan Submittal Rev. 0.

Status:

Approved July 24, 2002. NRC Letter, "Monticello Nuclear Generating Plant – Risk-Informed Inservice Inspection Program (TAC MB3819)"

**RISK-INFORMED INSERVICE INSPECTION PROGRAM PLAN MONTICELLO
NUCLEAR GENERATING PLANT - REVISION 0**

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1. INTRODUCTION

The Monticello Nuclear Generating Plant (MNGP) is nearing the end of its 3rd Inservice Inspection (ISI) Interval as defined by the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Section XI Code for Inspection Program B. MNGP plans to implement a Risk-Informed Inservice Inspection (RI-ISI) Program concurrent with the start of the 4th ISI interval, which will begin on June 1, 2002. Pursuant to 10 CFR 50.55a(g)(4)(ii), the applicable ASME Section XI Code for the 4th ISI interval will be the 1995 Edition through 1996 Addenda.

The objective of this submittal is to request the use of a risk-informed process for the inservice inspection of Class 1 and 2 piping. The risk-informed inservice inspection (RI-ISI) process used in this submittal is described in Electric Power Research Institute (EPRI) Topical Report (TR) 112657 Rev. B-A "Revised Risk-Informed Inservice Inspection Evaluation Procedure." The RI-ISI application was also conducted in a manner consistent with ASME Code Case N-578 "Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method B."

1.1 Relation to NRC Regulatory Guides 1.174 and 1.178

As a risk-informed application, this submittal meets the intent and principles of Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions On Plant-Specific Changes to the Licensing Basis" and Regulatory Guide 1.178, "An Approach for Plant-Specific Risk-Informed Decision-making Inservice Inspection of Piping." Further information is provided in Section 3.6.2 relative to defense-in-depth.

1.2 PSA Quality

The Monticello Level 1 and Level 2 Probabilistic Safety Assessment (PSA) results that are based on the January 1999 update were used to evaluate the consequences of pipe ruptures for the RI-ISI assessment during power operation. The base PSA Core Damage Frequency (CDF) is $1.5E-5$ events per year and the base PSA Large Early Release Frequency (LERF) is $5.5E-7$ events per year for the 1999 update. The original IPE result was a CDF of $2.6E-5$, which was reported to the NRC in 1992. The PSA model update history is discussed below.

The NRC review of the Monticello Individual Plant Examination (IPE) was issued in May 1994. The Staff Evaluation Report (SER) concluded the following regarding the Monticello IPE:

- The IPE is complete with respect to the information requested in Generic Letter 88-20 and associated Supplement 1;
- The IPE analytical approach is technically sound and capable of identifying plant-specific vulnerabilities;
- Monticello employed a viable means to verify that the IPE models reflect the current plant design and operation at the time of submittal to the NRC;
- The IPE had been peer-reviewed;
- Monticello participated in the IPE process;
- The IPE specifically evaluated the Monticello decay heat removal functions for vulnerabilities;
- Monticello had responded appropriately to the Containment Performance Improvement program recommendations.

There were no areas of improvement to the PSA model that were identified by the NRC in their review of the plant's IPE submittal.

The internal events PSA used for the RI-ISI evaluation is based on a more current version of the PSA than the version used for the IPE. The PSA model was updated in 1994, 1995 and 1999.

The major differences in the PSA model between the original IPE and the PSA updates through the 1995 update are that the updated model includes the following:

- Addition of a non-safety 480kv diesel generator that can backfeed through emergency bus 15 to supply battery charges;
- Installation of a hard piped vent that provides an additional means for containment heat removal;
- Improvements to safety relief valve pneumatics (including power supplies);
- Addition of a crosstie for alignment of the diesel fire pump as an additional source of low pressure makeup water;

- Replacement of an instrument air compressor with one that is not dependent on service water;
- More realistic success criteria for service water by changing from 2 of 3 pumps required for success to 1 of 3 pumps required for success;
- Internal floods initiating event frequency and effects were updated.

The 1999 PSA update was performed to incorporate the effects of power uprate conditions.

In 1997, a BWROG PSA Peer Certification Review was performed on the 1995 update PSA model. The overall conclusion was positive and said that the Monticello PSA can be effectively used to support applications involving relative risk significance. The "Facts and Observations" for Monticello have been evaluated, and are being addressed by the Monticello PSA Program. No substantial changes to the RI-ISI consequence conclusions are anticipated due to planned PSA model revisions to address these "Facts and Observations."

2. PROPOSED ALTERNATIVE TO CURRENT ISI PROGRAM REQUIREMENTS

2.1 ASME Section XI

ASME Section XI Examination Categories B-F, B-J, C-F-1 and C-F-2 currently contain the requirements for the nondestructive examination (NDE) of Class 1 and 2 piping components. The alternative RI-ISI program for piping is described in EPRI TR-112657. The RI-ISI program will be substituted for the current program for Class 1 and 2 piping (Examination Categories B-F, B-J, C-F-1 and C-F-2) in accordance with 10 CFR 50.55a(a)(3)(i) by alternatively providing an acceptable level of quality and safety. Other non-related portions of the ASME Section XI Code will be unaffected. EPRI TR-112657 provides the requirements for defining the relationship between the RI-ISI program and the remaining unaffected portions of ASME Section XI.

2.2 Augmented Programs

The following augmented inspection programs were considered during the RI-ISI application:

- The augmented inspection program for flow accelerated corrosion (FAC) per Generic Letter 89-08 is relied upon to manage this damage mechanism but is not otherwise affected or changed by the RI-ISI program.
- The augmented inspection program for intergranular stress corrosion cracking (IGSCC) as addressed in NRC Generic Letter 88-01 and NUREG-0313, Rev. 2, have been resolved by Monticello's pipe replacement program wherein all susceptible material was replaced with resistant material. All welds are therefore classified as IGSCC Category "A". In accordance with EPRI TR-112657, piping welds identified as Category "A" are considered resistant to IGSCC, and as such are assigned a low failure potential provided no other damage mechanisms are present. Examination criteria for these welds will be in accordance with the RI-ISI process.
- The augmented inspection program for High Energy Line Break (HELB) piping includes 36 Class 1 welds that are classified as ASME Section XI, Examination Category B-J. Although MNGP is not committed to using the NUREG-0800 Standard Review Plan (SRP), Sections 3.6.1 and 3.6.2 of the SRP are used as guidance in determining appropriate design and examination requirements for specified high energy piping. The 36 Class 1 welds that require examination in accordance with the HELB augmented inspection program are between the containment penetration and the outboard isolation valve in the main steam, high pressure coolant injection, reactor core isolation cooling, reactor water clean-up, residual heat removal and core spray systems. Independent of the HELB program, the RI-ISI application selected 8 of these 36 HELB welds for examination. The remaining 28 HELB welds will continue to be examined in accordance with the HELB augmented inspection program.

3. RISK-INFORMED ISI PROCESS

The process used to develop the RI-ISI program conformed to the methodology described in EPRI TR-112657 and consisted of the following steps:

- Scope Definition
- Consequence Evaluation
- Failure Potential Assessment
- Risk Characterization
- Element and NDE Selection
- Risk Impact Assessment
- Implementation Program
- Feedback Loop

A deviation to the EPRI RI-ISI methodology has been implemented in the failure potential assessment for MNGP. Table 3-16 of EPRI TR-112657 contains criteria for assessing the potential for thermal stratification, cycling and striping (TASCS). Key attributes for horizontal or slightly sloped piping greater than 1" nominal pipe size (NPS) include:

1. Potential exists for low flow in a pipe section connected to a component allowing mixing of hot and cold fluids, or
2. Potential exists for leakage flow past a valve, including in-leakage, out-leakage and cross-leakage allowing mixing of hot and cold fluids, or
3. Potential exists for convective heating in dead-ended pipe sections connected to a source of hot fluid, or
4. Potential exists for two phase (steam/water) flow, or
5. Potential exists for turbulent penetration into a relatively colder branch pipe connected to header piping containing hot fluid with turbulent flow,

AND

$\Delta T > 50^{\circ}\text{F}$,

AND

Richardson Number > 4 (*this value predicts the potential buoyancy of a stratified flow*)

These criteria, based on meeting a high cycle fatigue endurance limit with the actual ΔT assumed equal to the greatest potential ΔT for the transient, will identify all locations where stratification is likely to occur, but allows for no assessment of severity. As such, many locations will be identified as subject to TASCs where no significant potential for thermal fatigue exists. The critical attribute missing from the existing methodology that would allow consideration of fatigue severity is a criterion that addresses the potential for fluid cycling. The impact of this additional consideration on the existing TASCs susceptibility criteria is presented below.

➤ **Turbulent penetration TASCs**

Turbulent penetration typically occurs in lines connected to piping containing hot flowing fluid. In the case of downward sloping lines that then turn horizontal, significant top-to-bottom cyclic ΔT s can develop in the horizontal sections if the horizontal section is less than about 25 pipe diameters from the reactor coolant piping. Therefore, TASCs is considered for this configuration.

For upward sloping branch lines connected to the hot fluid source that turn horizontal or in horizontal branch lines, natural convective effects combined with effects of turbulence penetration will keep the line filled with hot water. If there is no potential for in-leakage towards the hot fluid source from the outboard end of the line, this will result in a well-mixed fluid condition where significant top-to-bottom ΔT s will not occur. Therefore TASCs is not considered for these configurations. Even in fairly long lines, where some heat loss from the outside of the piping will tend to occur and some fluid stratification may be present, there is no significant potential for cycling as has been observed for the in-leakage case. The effect of TASCs will not be significant under these conditions and can be neglected.

➤ **Low flow TASCs**

In some situations, the transient startup of a system (e.g., RHR suction piping) creates the potential for fluid stratification as flow is established. In cases where no cold fluid source exists, the hot flowing fluid will fairly rapidly displace the cold fluid in stagnant lines, while fluid mixing will occur in the piping further removed from the hot source and stratified conditions will exist only briefly as the line fills with hot fluid. As such, since the situation is transient in nature, it can be assumed that the criteria for thermal transients (TT) will govern.

➤ **Valve leakage TASCs**

Sometimes a very small leakage flow of hot water can occur outward past a valve into a line that is relatively colder, creating a significant temperature difference. However, since this is a generally a “steady-state” phenomenon with no potential for cyclic temperature changes, the effect of TASCs is not significant and can be neglected.

➤ **Convection heating TASCs**

Similarly, there sometimes exists the potential for heat transfer across a valve to an isolated section beyond the valve, resulting in fluid stratification due to natural convection. However, since there is no potential for cyclic temperature changes in this case, the effect of TASCs is not significant and can be neglected.

In summary, these additional considerations for determining the potential for thermal fatigue as a result of the effects of TASCs provide an allowance for the consideration of cycle severity in assessing the potential for TASCs effects. The above criteria have previously been submitted by EPRI for generic approval (Letter dated February 28, 2001, P.J. O’Regan (EPRI) to Dr. B. Sheron (USNRC), “Extension of Risk-Informed Inservice Inspection Methodology”).

3.1 Scope of Program

The systems included in the RI-ISI program are provided in Table 3.1. The piping and instrumentation diagrams and additional plant information including the existing plant ISI program, were used to define the Class 1 and 2 piping system boundaries.

3.2 Consequence Evaluation

The consequence(s) of pressure boundary failures were evaluated and ranked based on their impact on core damage and containment performance (i.e., isolation, bypass and large early release). The impact on these measures due to both direct and indirect effects was considered using the guidance provided in EPRI TR-112657.

3.3 Failure Potential Assessment

Failure potential estimates were generated utilizing industry failure history, plant specific failure history, and other relevant information. These failure estimates were determined using the guidance provided in EPRI TR-112657, with the exception of the previously stated deviation.

Table 3.3 summarizes the failure potential assessment by system for each degradation mechanism that was identified as potentially operative.

3.4 Risk Characterization

In the preceding steps, each run of piping within the scope of the program was evaluated to determine its impact on core damage and containment performance (i.e., isolation, bypass and large, early release) as well as its potential for failure. Given the results of these steps, piping segments are then defined as continuous runs of piping potentially susceptible to the same type(s) of degradation and whose failure will result in similar consequence(s). Segments are then ranked based upon their risk significance as defined in EPRI TR-112657.

The results of these calculations are presented in Table 3.4.

3.5 Element and NDE Selection

In general, EPRI TR-112657 requires that 25% of the locations in the high risk region and 10% of the locations in the medium risk region be selected for inspection using appropriate NDE methods tailored to the applicable degradation mechanism. In addition, per Section 3.6.4.2 of EPRI TR-112657, if the percentage of Class 1 piping locations selected for examination falls substantially below 10%, then the basis for selection needs to be investigated. For MNGP, the percentage of Class 1 welds selected per the RI-ISI process is 9.3% (76 of 817 welds), which is not a significant departure from 10%.

One additional factor that was considered during the evaluation was that the overall percentage of Class 1 selections included both socket and non-socket welds. Therefore, the percentage of Class 1 selections was 9.3% when both socket and non-socket piping welds were considered. This percentage increases to 13.2% (75 of 567 welds) when considering only those piping welds that are non-socket welded. It should be noted that non-socket welds are subject to volumetric examination, so this percentage does not rely upon welds that are solely subject to a VT-2 visual examination.

As stated in TR-112657, the existing FAC augmented inspection program provides the means to effectively manage this mechanism. No additional credit was taken for any FAC augmented inspection program locations beyond those selected by the RI-ISI process to meet the sampling percentage requirements.

A brief summary is provided below, and the results of the selection are presented in Table 3.5. Section 4 of EPRI TR-112657 was used as guidance in determining the examination requirements for these locations.

Unit	Class 1 Piping Welds ⁽¹⁾		Class 2 Piping Welds ⁽²⁾		All Piping Welds ⁽³⁾	
	Total	Selected	Total	Selected	Total	Selected
1	817	76	901	12	1718	88

Notes

1. Includes all Category B-F and B-J locations.
2. Includes all Category C-F-1 and C-F-2 locations.
3. All in-scope piping components, regardless of risk classification, will continue to receive Code required pressure testing, as part of the current ASME Section XI program. VT-2 visual examinations are scheduled in accordance with the station's pressure test program that remains unaffected by the RI-ISI program.

3.5.1 Additional Examinations

The RI-ISI program in all cases will determine through an engineering evaluation the root cause of any unacceptable flaw or relevant condition found during examination. The evaluation will include the applicable service conditions and degradation mechanisms to establish that the element(s) will still perform their intended safety function during subsequent operation. Elements not meeting this requirement will be repaired or replaced.

The evaluation will include whether other elements in the segment or additional segments are subject to the same root cause conditions. Additional examinations will be performed on those elements with the same root cause conditions or degradation mechanisms. The additional examinations will include high risk significant elements and medium risk significant elements, if needed, up to a number equivalent to the number of elements required to be inspected on the segment or segments during the current outage. If unacceptable flaws or relevant conditions are again found similar to the initial problem, the remaining elements identified as susceptible will be examined. No additional examinations will be performed if there are no additional elements identified as being susceptible to the same root cause conditions.

3.5.2 Program Relief Requests

An attempt has been made to select RI-ISI locations for examination such that a minimum of >90% coverage (i.e., Code Case N-460 criteria) is attainable. However, some limitations will not be known until the examination is performed, since some locations may be examined for the first time by the specified techniques.

In instances where locations are found at the time of the examination that do not meet the >90% coverage requirement, the process outlined in EPRI TR-112657 will be followed.

None of the existing MNGP relief requests are being withdrawn due to the RI-ISI application.

3.6 Risk Impact Assessment

The RI-ISI program has been conducted in accordance with Regulatory Guide 1.174 and the requirements of EPRI TR-112657, and the risk from implementation of this program is expected to remain neutral or decrease when compared to that estimated from current requirements.

This evaluation identified the allocation of segments into High, Medium, and Low risk regions of the EPRI TR-112657 and ASME Code Case N-578 risk ranking matrix, and then determined for each of these risk classes what inspection changes are proposed for each of the locations in each segment. The changes include changing the number and location of inspections within the segment and in many cases improving the effectiveness of the inspection to account for the findings of the RI-ISI degradation mechanism assessment. For example, for locations subject to thermal fatigue, examinations will be conducted on an expanded volume and will be focused to enhance the probability of detection (POD) during the inspection process.

3.6.1 Quantitative Analysis

Limits are imposed by the EPRI methodology to ensure that the change in risk of implementing the RI-ISI program meets the requirements of Regulatory Guides 1.174 and 1.178. The EPRI criterion requires that the cumulative change in core damage frequency (CDF) and large early release frequency (LERF) be less than 1E-07 and 1E-08 per year per system, respectively.

Monticello conducted a risk impact analysis per the requirements of Section 3.7 of EPRI TR-112657. The analysis estimates the net change in risk due to the positive and negative influence of adding and removing locations from the inspection program. A risk quantification was performed using the "Simplified Risk Quantification Method" described in Section 3.7 of EPRI TR-112657. The conditional core damage probability (CCDP) and conditional large early release probability (CLERP) used for high consequence category segments was based on the highest evaluated CCDP (9E-03) and CLERP (9E-03), whereas, for medium consequence category segments, bounding estimates of CCDP (1E-04) and CLERP (1E-05) were used. The likelihood of pressure boundary failure (PBF) is determined by the presence of different degradation mechanisms and the rank is based on the relative failure probability. The basic likelihood of PBF for a piping location with no degradation mechanism present is given as x_0 and is expected to have a value less than 1E-08. Piping locations identified as medium failure potential have a likelihood of $20x_0$. In addition, the analysis was performed both with and without taking credit for enhanced inspection effectiveness due to an increased POD from application of the RI-ISI approach. The PBF likelihoods and POD values used in the analysis are consistent with those used in the approved RI-ISI pilot applications at Arkansas Nuclear One, Unit 2, and Vermont Yankee, as documented in References 9 and 14 of EPRI TR-112657.

Table 3.6-1 presents a summary of the RI-ISI program versus ASME Section XI Code requirements and identifies on a per system basis each applicable risk category. The presence of FAC was adjusted for in the performance of the quantitative analysis by excluding its impact on the risk ranking. However, in an effort to be as informative as possible, for those systems where FAC is present, Table 3.6-1 presents the information in such a manner as to depict what the resultant risk categorization is both with and without consideration of FAC. This is accomplished by enclosing the FAC damage mechanism, as well as all other resultant corresponding changes (failure potential rank, risk category and risk rank), in parenthesis. Again, this has only been done for information purposes, and has no impact on the assessment itself. The use of this approach to depict the impact of degradation mechanisms managed by augmented inspection programs on the risk categorization is consistent with that used in the delta risk assessment for the Arkansas Nuclear One, Unit 2 pilot application. An example is provided below.

System	Risk		Consequence Rank	Failure Potential	
	Category	Rank ⁽¹⁾		DMs	Rank
FW	5 (3)	Medium (High)	Medium	TASCS, TT, (FAC)	Medium (High)
		High			High

In this example if FAC is not considered, the failure potential rank is "medium" instead of "high" based on the TASCS and TT damage mechanisms. When a "medium" failure potential rank is combined with a "medium" consequence rank, it results in risk category 5 ("medium" risk) being assigned instead of risk category 3 ("high" risk).

In this example if FAC were considered, the failure potential rank would be "high" instead of "medium". If a "high" failure potential rank were combined with a "medium" consequence rank, it would result in risk category 3 ("high" risk) being assigned instead of risk category 5 ("medium" risk).

Note

1. The risk rank is not included in Table 3.6-1 but it is included in Table 5-2.

As indicated in the table below, this evaluation has demonstrated that unacceptable risk impacts will not occur from implementation of the RI-ISI program, and satisfies the acceptance criteria of Regulatory Guide 1.174 and EPRI TR-112657.

Risk Impact Results

System ⁽¹⁾	$\Delta Risk_{CDF}$		$\Delta Risk_{LERF}$	
	w/ POD	w/o POD	w/ POD	w/o POD
RPV	9.00E-11	9.00E-11	9.00E-11	9.00E-11
RWCU	4.50E-11	4.50E-11	4.50E-11	4.50E-11
MS	9.90E-10	9.90E-10	9.90E-10	9.90E-10
SLC	-4.50E-11	-4.50E-11	-4.50E-11	-4.50E-11
RCR	6.98E-09	6.98E-09	6.98E-09	6.98E-09
RCIC	-1.38E-10	-1.10E-10	-9.48E-11	-9.20E-11
RHR	-9.71E-09	-2.13E-09	-9.72E-09	-2.16E-09
CS	1.22E-09	1.22E-09	1.22E-09	1.22E-09
HPCI	-6.15E-10	2.69E-09	-5.88E-10	2.66E-09
FW	-6.20E-09	3.90E-09	-6.17E-09	3.91E-09
CCW	negligible	negligible	negligible	negligible
CRD	negligible	negligible	negligible	negligible
FPEC	no change	no change	no change	no change
PCAC	negligible	negligible	negligible	negligible
Torus	negligible	negligible	negligible	negligible
Total	-7.40E-09	1.36E-08	-7.30E-09	1.36E-08

Note

1. Systems are described in Table 3.1.

3.6.2 Defense-in-Depth

The intent of the inspections mandated by ASME Section XI for piping welds is to identify conditions such as flaws or indications that may be precursors to leaks or ruptures in a system's pressure boundary. Currently, the process for picking inspection locations is based upon structural discontinuity and stress analysis results. As depicted in ASME White Paper 92-01-01 Rev. 1, "Evaluation of Inservice Inspection Requirements for Class 1, Category B-J Pressure Retaining Welds," this method has been ineffective in identifying leaks or failures. EPRI TR-112657 and Code Case N-578 provide a more robust selection process founded on actual service experience with nuclear plant piping failure data.

This process has two key independent ingredients, that is, a determination of each location's susceptibility to degradation and secondly, an independent assessment of the consequence of the piping failure. These two ingredients assure defense in depth is maintained. First, by evaluating a location's susceptibility to degradation, the likelihood of finding flaws or indications that may be precursors to leak or ruptures is increased. Secondly, the consequence assessment effort has a single failure criterion. As such, no matter how unlikely a failure scenario is, it is ranked High in the consequence assessment, and at worst Medium in the risk assessment (i.e., Risk Category 4), if as a result of the failure there is no mitigative equipment available to respond to the event. In addition, the consequence assessment takes into account equipment reliability, and less credit is given to less reliable equipment.

All locations within the Class 1 and 2 pressure boundaries will continue to receive a system pressure test and visual VT-2 examination as currently required by the Code regardless of its risk classification.

4. IMPLEMENTATION AND MONITORING PROGRAM

Upon approval of the RI-ISI program, procedures that comply with the guidelines described in EPRI TR-112657 will be prepared to implement and monitor the program. The new program will be integrated into the 4th Inservice Inspection Interval. No changes to the Technical Specifications or Updated Final Safety Analysis Report are necessary for program implementation.

The applicable aspects of the ASME Code not affected by this change will be retained, such as inspection methods, acceptance guidelines, pressure testing, corrective measures, documentation requirements, and quality control requirements. Existing ASME Section XI program implementing procedures will be retained and modified to address the RI-ISI process, as appropriate.

The monitoring and corrective action program will contain the following elements:

- A. Identify
- B. Characterize
- C. (1) Evaluate, determine the cause and extent of the condition identified
(2) Evaluate, develop a corrective action plan or plans
- D. Decide
- E. Implement
- F. Monitor
- G. Trend

The RI-ISI program is a living program requiring feedback of new relevant information to ensure the appropriate identification of high safety significant piping locations. As a minimum, risk ranking of piping segments will be reviewed and adjusted on an ASME period basis. In addition, significant changes may require more frequent adjustment as directed by NRC Bulletin or Generic Letter requirements, or by industry and plant specific feedback.

5. PROPOSED ISI PROGRAM PLAN CHANGE

A comparison between the RI-ISI program and ASME Section XI Code 1986 Edition program requirements for in-scope piping is provided in Tables 5-1 and 5-2. (Since no examination selections had been made for the 4th interval ISI Program prior to the development on the RI-ISI Program, the 3rd Interval selections were used for comparison purposes. The Code of record for the 3rd Interval was the 1986 Edition of ASME Section XI.) Table 5-1 provides a summary comparison by risk region. Table 5-2 provides the same comparison information, but in a more detailed manner by risk category, similar to the format used in Table 3.6-1.

MNGP is implementing the RI-ISI program at the start of the 1st period of its 4th Inspection Interval. As such, 100% of the required RI-ISI program inspections will be completed in the 4th interval. Examinations shall be performed during the interval such that the period examination percentage requirements of ASME Section XI, paragraphs IWB-2412 and IWC-2412 are met.

6. REFERENCES/DOCUMENTATION

EPRI TR-112657, "Revised Risk-Informed Inservice Inspection Evaluation Procedure," Rev. B-A

ASME Code Case N-578, "Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method B, Section XI, Division 1"

Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions On Plant-Specific Changes to the Licensing Basis"

Regulatory Guide 1.178, "An Approach for Plant-Specific Risk Informed Decision-making Inservice Inspection of Piping"

Supporting Onsite Documentation

Structural Integrity Calculation/File No. NMC-01-301, "Degradation Mechanism Evaluation for Class 1 and 2 Piping Welds at Monticello Nuclear Generating Plant," Revision 1

Structural Integrity Calculation/File No. NMC-01-302, "Risk-Informed Inservice Inspection Consequence Evaluation of Class 1 and 2 Piping for Monticello Nuclear Power Plant," Revision 1

Structural Integrity Calculation/File No. NMC-01-303, "Risk Ranking Summary, Matrix and Report for the Monticello Nuclear Generating Plant," Revision 0

Structural Integrity Calculation/File No. NMC-01-304, "Risk Impact Analysis for the Monticello Nuclear Generating Plant," Revision 1

Structural Integrity File No. NMC-01-103-4, Record of Conversation No. ROC-002, "Minutes of the Element Selection Meeting for the Risk-Informed ISI Project at the Monticello Nuclear Generating Plant," Revision 1, June 21, 2001

MNGP Calculation/File No. CA-01-216, "Monticello Nuclear Generating Plant, Risk-Informed Service History Report for Class I and II Piping Welds, ASME Categories B-F, B-J, C-F-1 and C-F-2," Revision 0

Table 3.1		
System Selection and Segment / Element Definition		
System Description	Number of Segments	Number of Elements
RPV – Reactor Pressure Vessel	19	112
RWCU – Reactor Water Clean-Up	10	85
MS – Main Steam	22	204
SLC – Standby Liquid Control	3	35
RCR – Reactor Coolant Recirculation	22	135
RCIC – Reactor Core Isolation Cooling	13	65
RHR – Residual Heat Removal	97	476
CS – Core Spray	36	191
HPCI – High Pressure Coolant Injection	20	158
FW – Feedwater	37	78
CCW – Component Cooling Water	2	18
CRD – Control Rod Drive	7	41
FPEC – Fuel Pool Emergency Cooling	10	54
PCAC – Primary Containment and Atmospheric Control	8	47
Torus – Torus Hard Vent	1	19
Totals	307	1718

NOTE: TABLE 3.2 was not part of the Risk-Informed ISI Program submittal and is intentionally excluded from this document.

Table 3.3 Failure Potential Assessment Summary											
System ⁽¹⁾	Thermal Fatigue		Stress Corrosion Cracking				Localized Corrosion			Flow Sensitive	
	TASCS	TT	IGSCC	TGSCC	ECSCC	PWSCC	MIC	PIT	CC	E-C	FAC
RPV											
RWCU											
MS											X
SLC											
RCR									X		
RCIC		X									X
RHR		X									X
CS									X		X
HPCI		X									
FW	X	X							X		X
CCW											
CRD											
FPEC											
PCAC											
Torus											

Note

1. Systems are described in Table 3.1.

Table 3.4
Number of Segments by Risk Category With and Without Impact of FAC

System ⁽¹⁾	High Risk Region						Medium Risk Region				Low Risk Region			
	Category 1		Category 2		Category 3		Category 4		Category 5		Category 6		Category 7	
	With	Without	With	Without	With	Without	With	Without	With	Without	With	Without	With	Without
RPV							6	6			10	10	3	3
RWCU							9	9					1	1
MS	2 ⁽²⁾	0					5	7			14	14	1	1
SLC							1	1			2	2		
RCR			10	10			10	10					2	2
RCIC					3 ⁽³⁾	0	2	2	3	6	3	3	2	2
RHR			3	3	15 ⁽⁴⁾	0	13	13	5 ⁽⁵⁾	2	44	59	17	20
CS			2	2	1 ⁽⁶⁾	0	4	4	4 ⁽⁷⁾	0	6	7	19	23
HPCI			2	2			4	4	3	3	11	11		
FW	14 ⁽⁸⁾	0	14	21	2 ⁽⁹⁾	0	6	13	1	3				
CCW													2	2
CRD											2	2	5	5
FPEC											10	10		
PCAC											8	8		
Torus											1	1		
Total	16	0	31	38	21	0	60	69	16	14	111	127	52	59

Notes

1. Systems are described in Table 3.1.
2. These two segments become Category 4 after FAC is removed from consideration due to no other damage mechanisms being present.
3. These three segments become Category 5 after FAC is removed from consideration due to the presence of other "medium" failure potential damage mechanisms.
4. These fifteen segments become Category 6 after FAC is removed from consideration due to no other damage mechanisms being present.

Notes for Table 3.4 (cont'd)

5. Of these five segments, three segments become Category 7 after FAC is removed due to no other damage mechanisms being present.
6. This one segment becomes Category 6 after FAC is removed due to no other damage mechanisms being present.
7. *These four segments become Category 7 after FAC is removed due to no other damage mechanisms being present.*
8. Of these fourteen segments, seven segments become Category 2 after FAC is removed due to the presence of other "medium" failure potential damage mechanisms, and seven segments become Category 4 after FAC is removed due to no other damage mechanisms being present.
9. These two segments become Category 5 after FAC is removed due to no other damage mechanisms being present.

Table 3.5 Number of Elements Selected for Inspection by Risk Category Excluding Impact of FAC														
System ⁽¹⁾	High Risk Region						Medium Risk Region				Low Risk Region			
	Category 1		Category 2		Category 3		Category 4		Category 5		Category 6		Category 7	
	Total	Selected	Total	Selected	Total	Selected	Total	Selected	Total	Selected	Total	Selected	Total	Selected
RPV							21	3			83	0	8	0
RWCU							84	9					1	0
MS							105	11 ⁽²⁾			95	0	4	0
SLC							8	1			27	0		
RCR			10	3			113	12					12	0
RCIC							12	2	28	3	12	0	13	0
RHR			31	8			67	7	10	1	269	0	99	0
CS			2	1			20	2			35	0	134	0
HPCI			8	2			27	3	33	4	90	0		
FW			36	10			38	4 ⁽³⁾	4	2				
CCW													18	0
CRD											10	0	31	0
FPEC											54	0		
PCAC											47	0		
Torus											19	0		
Total			87	24			495	54	75	10	741	0	320	0

- Notes**
1. Systems are described in Table 3.1.
 2. One of these eleven welds was selected for examination by both the FAC and RI-ISI Programs. Since FAC was the only damage mechanism identified for this weld, the FAC examination will be credited toward both programs.
 3. Two of these four welds were selected for examination by both the FAC and RI-ISI Programs. Since FAC was the only damage mechanism identified for these welds, the FAC examinations will be credited toward both programs.

Table 3.6-1
Risk Impact Analysis Results

System ⁽¹⁾	Category	Consequence Rank	Failure Potential		Inspections			CDF Impact ⁽⁴⁾		LERF Impact ⁽⁴⁾	
			DMs	Rank	Section XI ⁽²⁾	RI-ISI ⁽³⁾	Delta	w/ POD	w/o POD	w/ POD	w/o POD
RPV	4	High	None	Low	5	3	-2	9.00E-11	9.00E-11	9.00E-11	9.00E-11
RPV	6	Medium	None	Low	4	0	-4	negligible	negligible	negligible	negligible
RPV	7	Low	None	Low	2	0	-2	negligible	negligible	negligible	negligible
RPV Total								9.00E-11	9.00E-11	9.00E-11	9.00E-11
RWCU	4	High	None	Low	10	9	-1	4.50E-11	4.50E-11	4.50E-11	4.50E-11
RWCU	7	Low	None	Low	0	0	0	no change	no change	no change	no change
RWCU Total								4.50E-11	4.50E-11	4.50E-11	4.50E-11
MS	4 (1)	High	None (FAC)	Low (High)	2	0	-2	9.00E-11	9.00E-11	9.00E-11	9.00E-11
MS	4	High	None	Low	30	10	-20	9.00E-10	9.00E-10	9.00E-10	9.00E-10
MS	6	Medium	None	Low	21	0	-21	negligible	negligible	negligible	negligible
MS	7	Low	None	Low	0	0	0	no change	no change	no change	no change
MS Total								9.90E-10	9.90E-10	9.90E-10	9.90E-10
SLC	4	High	None	Low	0	1	1	-4.50E-11	-4.50E-11	-4.50E-11	-4.50E-11
SLC	6	Medium	None	Low	0	0	0	no change	no change	no change	no change
SLC Total								-4.50E-11	-4.50E-11	-4.50E-11	-4.50E-11
RCR	2	High	CC	Medium	10	3	-7	6.30E-09	6.30E-09	6.30E-09	6.30E-09
RCR	4	High	None	Low	27	12	-15	6.75E-10	6.75E-10	6.75E-10	6.75E-10
RCR	7	Low	None	Low	0	0	0	no change	no change	no change	no change
RCR Total								6.98E-09	6.98E-09	6.98E-09	6.98E-09

Table 3.6-1

Risk Impact Analysis Results

System ⁽¹⁾	Category	Consequence Rank	Failure Potential		Inspections			CDF Impact ⁽⁴⁾		LERF Impact ⁽⁴⁾	
			DMs	Rank	Section XI ⁽²⁾	RI-ISI ⁽³⁾	Delta	w/ POD	w/o POD	w/ POD	w/o POD
RCIC	4	High	None	Low	0	2	2	-9.00E-11	-9.00E-11	-9.00E-11	-9.00E-11
RCIC	5 (3)	Medium	TT, (FAC)	Medium (High)	1	1	0	-1.20E-11	no change	-1.20E-12	no change
RCIC	5	Medium	TT	Medium	0	2	2	-3.60E-11	-2.00E-11	-3.60E-12	-2.00E-12
RCIC	6	Medium	None	Low	1	0	-1	negligible	negligible	negligible	negligible
RCIC	7	Low	None	Low	0	0	0	no change	no change	no change	no change
RCIC Total								-1.38E-10	-1.10E-10	-9.48E-11	-9.20E-11
RHR	2	High	TT	Medium	5	8	3	-1.03E-08	-2.70E-09	-1.03E-08	-2.70E-09
RHR	4	High	None	Low	19	7	-12	5.40E-10	5.40E-10	5.40E-10	5.40E-10
RHR	5	Medium	TT	Medium	4	1	-3	6.00E-12	3.00E-11	6.00E-13	3.00E-12
RHR	6 (3)	Medium	None (FAC)	Low (High)	5	0	-5	negligible	negligible	negligible	negligible
RHR	6	Medium	None	Low	20	0	-20	negligible	negligible	negligible	negligible
RHR	7 (5)	Low	None (FAC)	Low (High)	1	0	-1	negligible	negligible	negligible	negligible
RHR	7	Low	None	Low	8	0	-8	negligible	negligible	negligible	negligible
RHR Total								-9.71E-09	-2.13E-09	-9.72E-09	-2.16E-09
CS	2	High	CC	Medium	2	1	-1	9.00E-10	9.00E-10	9.00E-10	9.00E-10
CS	4	High	None	Low	9	2	-7	3.15E-10	3.15E-10	3.15E-10	3.15E-10
CS	6 (3)	Medium	None (FAC)	Low (High)	0	0	0	no change	no change	no change	no change
CS	6	Medium	None	Low	6	0	-6	negligible	negligible	negligible	negligible
CS	7 (5)	Low	None (FAC)	Low (High)	0	0	0	no change	no change	no change	no change
CS	7	Low	None	Low	18	0	-18	negligible	negligible	negligible	negligible
CS Total								1.22E-09	1.22E-09	1.22E-09	1.22E-09

Table 3.6-1
Risk Impact Analysis Results

System ⁽¹⁾	Category	Consequence Rank	Failure Potential		Inspections			CDF Impact ⁽⁴⁾		LERF Impact ⁽⁴⁾	
			DMs	Rank	Section XI ⁽²⁾	RI-ISI ⁽³⁾	Delta	w/ POD	w/o POD	w/ POD	w/o POD
HPCI	2	High	TT	Medium	5	2	-3	-5.40E-10	2.70E-09	-5.40E-10	2.70E-09
HPCI	4	High	None	Low	2	3	1	-4.50E-11	-4.50E-11	-4.50E-11	-4.50E-11
HPCI	5	Medium	TT	Medium	7	4	-3	-3.00E-11	3.00E-11	-3.00E-12	3.00E-12
HPCI	6	Medium	None	Low	7	0	-7	negligible	negligible	negligible	negligible
HPCI	6	Low	TT	Medium	1	0	-1	negligible	negligible	negligible	negligible
HPCI Total								-6.15E-10	2.69E-09	-5.88E-10	2.66E-09
FW	2 (1)	High	TASCS, TT, (FAC)	Medium (High)	0	1	1	-1.62E-09	-9.00E-10	-1.62E-09	-9.00E-10
FW	2 (1)	High	TASCS, (FAC)	Medium (High)	4	1	-3	5.40E-10	2.70E-09	5.40E-10	2.70E-09
FW	2 (1)	High	TT, (FAC)	Medium (High)	2	1	-1	-5.40E-10	9.00E-10	-5.40E-10	9.00E-10
FW	2	High	TASCS, TT	Medium	0	1	1	-1.62E-09	-9.00E-10	-1.62E-09	-9.00E-10
FW	2	High	TASCS	Medium	6	4	-2	-3.24E-09	1.80E-09	-3.24E-09	1.80E-09
FW	2	High	TT	Medium	0	0	0	no change	no change	no change	no change
FW	2	High	CC	Medium	2	2	0	no change	no change	no change	no change
FW	4 (1)	High	None (FAC)	Low (High)	6	0	-6	2.70E-10	2.70E-10	2.70E-10	2.70E-10
FW	4	High	None	Low	3	2	-1	4.50E-11	4.50E-11	4.50E-11	4.50E-11
FW	5 (3)	Medium	TASCS, TT, (FAC)	Medium (High)	0	1	1	-1.80E-11	-1.00E-11	-1.80E-12	-1.00E-12
FW	5 (3)	Medium	TASCS, (FAC)	Medium (High)	0	0	0	no change	no change	no change	no change
FW	5	Medium	TASCS	Medium	0	1	1	-1.80E-11	-1.00E-11	-1.80E-12	-1.00E-12
FW Total								-6.20E-09	3.90E-09	-6.17E-09	3.91E-09
CCW	7	Low	None	Low	1	0	-1	negligible	negligible	negligible	negligible
CCW Total								negligible	negligible	negligible	negligible
CRD	6	Medium	None	Low	10	0	-10	negligible	negligible	negligible	negligible
CRD	7	Low	None	Low	21	0	-21	negligible	negligible	negligible	negligible
CRD Total								negligible	negligible	negligible	negligible

Table 3.6-1

Risk Impact Analysis Results

System ⁽¹⁾	Category	Consequence Rank	Failure Potential		Inspections			CDF Impact ⁽⁴⁾		LERF Impact ⁽⁴⁾	
			DMs	Rank	Section XI ⁽²⁾	RI-ISI ⁽³⁾	Delta	w/ POD	w/o POD	w/ POD	w/o POD
FPEC	6	Medium	None	Low	0	0	0	no change	no change	no change	no change
FPEC Total								no change	no change	no change	no change
PCAC	6	Medium	None	Low	4	0	-4	negligible	negligible	negligible	negligible
PCAC Total								negligible	negligible	negligible	negligible
Torus	6	Medium	None	Low	1	0	-1	negligible	negligible	negligible	negligible
Torus Total								negligible	negligible	negligible	negligible
Grand Total								-7.40E-09	1.36E-08	-7.30E-09	1.36E-08

Notes

1. Systems are described in Table 3.1.
2. Only those ASME Section XI Code inspection locations that received a volumetric examination in addition to a surface examination were included in the count. Inspection locations previously subjected to a surface examination only were not considered in accordance with Section 3.7.1 of EPRI TR-112657.
3. Risk Category 4 (1) inspection locations selected for examination by both the FAC and RI-ISI Programs are not included in the count since they do not represent additional examinations.
4. Per Section 3.7.1 of EPRI TR-112657, the contribution of low risk categories 6 and 7 need not be considered in assessing the change in risk. Hence, the word "negligible" is given in these cases in lieu of values for CDF and LERF Impact. In those cases where no inspections were being performed previously via Section XI, and none are planned for RI-ISI purposes, "no change" is listed instead of "negligible."

NOTE: TABLE 4 was not part of the Risk-Informed ISI Program submittal and is intentionally excluded from this document.

Table 5-1
Inspection Location Selection Comparison Between 1986 ASME Section XI Code
and EPRI TR-112657 by Risk Region

System ⁽¹⁾	Code Category ⁽²⁾	High Risk Region					Medium Risk Region					Low Risk Region				
		Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657		Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657		Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657	
			Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾		Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾		Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾
RPV	B-F					5	3	2	1		3	1	2	0		
	B-J					16	2	3	2		88	5	24	0		
RWCU	B-F					1	1	0	1							
	B-J					83	9	15	8		1	0	0	0		
MS	B-J					105	32	1	11 ⁽⁴⁾		99	21	21	0		
SLC	B-F										1	0	1	0		
	B-J					8	0	3	1		26	0	6	0		
RCR	B-F	10	10	0	3	2	2	0	0							
	B-J					111	25	5	12		12	0	3	0		
RCIC	B-J										14	0	5	0		
	C-F-2					40	1	0	5		11	1	0	0		
RHR	B-F	1	1	0	0	2	2	0	0							
	B-J	30	4	0	8	75	21	0	8		7	4	0	0		
	C-F-2										361	30	2	0		
CS	B-F	2	2	0	1											
	B-J					20	9	0	2		8	2	0	0		
	C-F-2										161	22	0	0		
HPCI	B-F	2	2	0	0											
	B-J	6	3	0	2						9	1	0	0		
	C-F-2					60	9	0	7		81	7	0	0		
FW	B-J	29	9	0	10	41	8	0	6 ⁽⁵⁾							
	C-F-2	7	5	0	0	1	1	0	0							

Table 5-1 (cont'd)
**Inspection Location Selection Comparison Between 1986 ASME Section XI Code
and EPRI TR-112657 by Risk Region**

System ⁽¹⁾	Code Category ⁽²⁾	High Risk Region					Medium Risk Region					Low Risk Region				
		Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657		Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657		Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657	
			Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾		Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾		Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾
CCW	C-F-2											18	1	0	0	
CRD	C-F-1											31	28	0	0	
	C-F-2											10	3	0	0	
FPEC	C-F-2											54	0	0	0	
PCAC	C-F-2											47	4	0	0	
Torus	C-F-2											19	1	0	0	
Total	B-F	15	15	0	4		10	8	2	2		4	1	3	0	
	B-J	65	16	0	20		459	106	27	50		264	33	59	0	
	C-F-1											31	28	0	0	
	C-F-2	7	5	0	0		101	11	0	12		762	69	2	0	

- Notes**
- Systems are described in Table 3.1.
 - Since no examination selections had been made for the 4th interval ISI Program prior to the development of the RI-ISI Program, the 3rd Interval selections were used for comparison purposes. The Code of record for the 3rd Interval was the 1986 Edition of ASME Section XI. The Code Categories listed in the table are therefore in accordance with the 1986 Edition of ASME Section XI.
 - The column labeled "Other" is generally used to identify augmented inspection program locations credited per Section 3.6.5 of EPRI TR-112657. The EPRI methodology allows augmented inspection program locations to be credited if the inspection locations selected strictly for RI-ISI purposes produce substantially less than a 10% sampling of the overall Class 1 weld population. As stated in Section 3.5 of this template, MNGP achieved a 9.2% sampling without relying on augmented inspection program locations beyond those selected by the RI-ISI process. The "Other" column has been retained in this table solely for uniformity purposes with the other RI-ISI application template submittals.
 - One of these eleven welds was selected for examination by both the FAC and RI-ISI Programs. Since FAC was the only damage mechanism identified for this weld, the FAC examination will be credited toward both programs.
 - Two of these six welds were selected for examination by both the FAC and RI-ISI Programs. Since FAC was the only damage mechanism identified for these welds, the FAC examinations will be credited toward both programs.

Table 5-2
Inspection Location Selection Comparison Between 1986 ASME Section XI Code
and EPRI TR-112657 by Risk Category

System ⁽¹⁾	Risk		Consequence Rank	Failure Potential		Code Category ⁽²⁾	Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657	
	Category	Rank		DMs	Rank			Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾
RPV	4	Medium	High	None	Low	B-F	5	3	2	1	
						B-J	16	2	3	2	
RPV	6	Low	Medium	None	Low	B-F	3	1	2	0	
						B-J	80	3	22	0	
RPV	7	Low	Low	None	Low	B-J	8	2	2	0	
RWCU	4	Medium	High	None	Low	B-F	1	1	0	1	
						B-J	83	9	15	8	
RWCU	7	Low	Low	None	Low	B-J	1	0	0	0	
MS	4 (1)	Medium (High)	High	None (FAC)	Low (High)	B-J	6	2	0	1 ⁽⁴⁾	
MS	4	Medium	High	None	Low	B-J	99	30	1	10	
MS	6	Low	Medium	None	Low	B-J	95	21	18	0	
MS	7	Low	Low	None	Low	B-J	4	0	3	0	
SLC	4	Medium	High	None	Low	B-J	8	0	3	1	
SLC	6	Low	Medium	None	Low	B-F	1	0	1	0	
						B-J	26	0	6	0	
RCR	2	High	High	CC	Medium	B-F	10	10	0	3	
RCR	4	Medium	High	None	Low	B-F	2	2	0	0	
						B-J	111	25	5	12	
RCR	7	Low	Low	None	Low	B-J	12	0	3	0	

Table 5-2 (cont'd)
**Inspection Location Selection Comparison Between 1986 ASME Section XI Code
and EPRI TR-112657 by Risk Category**

System ⁽¹⁾	Risk		Consequence Rank	Failure Potential		Code Category ⁽²⁾	Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657	
	Category	Rank		DMs	Rank			Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾
RCIC	4	Medium	High	None	Low	C-F-2	12	0	0	2	
RCIC	5 (3)	Medium (High)	Medium	TT, (FAC)	Medium (High)	C-F-2	8	1	0	1	
RCIC	5	Medium	Medium	TT	Medium	C-F-2	20	0	0	2	
RCIC	6	Low	Medium	None	Low	B-J	5	0	2	0	
						C-F-2	7	1	0	0	
RCIC	7	Low	Low	None	Low	B-J	9	0	3	0	
						C-F-2	4	0	0	0	
RHR	2	High	High	TT	Medium	B-F	1	1	0	0	
						B-J	30	4	0	8	
RHR	4	Medium	High	None	Low	B-F	2	2	0	0	
						B-J	65	17	0	7	
RHR	5	Medium	Medium	TT	Medium	B-J	10	4	0	1	
RHR	6 (3)	Low (High)	Medium	None (FAC)	Low (High)	C-F-2	42	5	0	0	
RHR	6	Low	Medium	None	Low	C-F-2	227	20	0	0	
RHR	7 (5)	Low (Medium)	Low	None (FAC)	Low (High)	C-F-2	10	1	0	0	
RHR	7	Low	Low	None	Low	B-J	7	4	0	0	
						C-F-2	82	4	2	0	
CS	2	High	High	CC	Medium	B-F	2	2	0	1	
CS	4	Medium	High	None	Low	B-J	20	9	0	2	
CS	6 (3)	Low (High)	Medium	None (FAC)	Low (High)	C-F-2	4	0	0	0	
CS	6	Low	Medium	None	Low	B-J	8	2	0	0	
						C-F-2	23	4	0	0	
CS	7 (5)	Low (Medium)	Low	None (FAC)	Low (High)	C-F-2	13	0	0	0	
CS	7	Low	Low	None	Low	C-F-2	121	18	0	0	

Table 5-2 (cont'd)
**Inspection Location Selection Comparison Between 1986 ASME Section XI Code
and EPRI TR-112657 by Risk Category**

System ⁽¹⁾	Risk		Consequence Rank	Failure Potential		Code Category ⁽²⁾	Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657	
	Category	Rank		DMs	Rank			Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾
HPCI	2	High	High	TT	Medium	B-F	2	2	0	0	
						B-J	6	3	0	2	
HPCI	4	Medium	High	None	Low	C-F-2	27	2	0	3	
HPCI	5	Medium	Medium	TT	Medium	C-F-2	33	7	0	4	
HPCI	6	Low	Medium	None	Low	C-F-2	81	7	0	0	
HPCI	6	Low	Low	TT	Medium	B-J	9	1	0	0	
FW	2 (1)	High (High)	High	TASCS, TT, (FAC)	Medium (High)	B-J	1	0	0	1	
FW	2 (1)	High (High)	High	TASCS, (FAC)	Medium (High)	B-J	1	1	0	1	
						C-F-2	4	3	0	0	
FW	2 (1)	High (High)	High	TT, (FAC)	Medium (High)	B-J	4	1	0	1	
						C-F-2	1	1	0	0	
FW	2	High	High	TASCS, TT	Medium	B-J	2	0	0	1	
						C-F-2	1	0	0	0	
FW	2	High	High	TASCS	Medium	B-J	12	5	0	4	
						C-F-2	1	1	0	0	
FW	2	High	High	TT	Medium	B-J	1	0	0	0	
FW	2	High	High	CC	Medium	B-J	8	2	0	2	
FW	4 (1)	Medium (High)	High	None (FAC)	Low (High)	B-J	18	5	0	2 ⁽⁶⁾	
						C-F-2	1	1	0	0	
FW	4	Medium	High	None	Low	B-J	19	3	0	2	
FW	5 (3)	Medium (High)	Medium	TASCS, TT, (FAC)	Medium (High)	B-J	1	0	0	1	
FW	5 (3)	Medium (High)	Medium	TASCS, (FAC)	Medium (High)	B-J	1	0	0	0	
FW	5	Medium	Medium	TASCS	Medium	B-J	2	0	0	1	

Table 5-2 (cont'd)
**Inspection Location Selection Comparison Between 1986 ASME Section XI Code
and EPRI TR-112657 by Risk Category**

System ⁽¹⁾	Risk		Consequence Rank	Failure Potential		Code Category ⁽²⁾	Weld Count	1986 Section XI ⁽²⁾		EPRI TR-112657	
	Category	Rank		DMs	Rank			Vol/Sur	Sur Only	RI-ISI	Other ⁽³⁾
CCW	7	Low	Low	None	Low	C-F-2	18	1	0	0	
CRD	6	Low	Medium	None	Low	C-F-1	10	10	0	0	
CRD	7	Low	Low	None	Low	C-F-1	21	18	0	0	
						C-F-2	10	3	0	0	
FPEC	6	Low	Medium	None	Low	C-F-2	54	0	0	0	
PCAC	6	Low	Medium	None	Low	C-F-2	47	4	0	0	
Torus	6	Low	Medium	None	Low	C-F-2	19	1	0	0	

Notes

1. Systems are described in Table 3.1.
2. Since no examination selections had been made for the 4th interval ISI Program prior to the development of the RI-ISI Program, the 3rd Interval selections were used for comparison purposes. The Code of record for the 3rd Interval was the 1986 Edition of ASME Section XI. The Code Categories listed in the table are therefore in accordance with the 1986 Edition of ASME Section XI.
3. The column labeled "Other" is generally used to identify augmented inspection program locations credited per Section 3.6.5 of EPRI TR-112657. The EPRI methodology allows augmented inspection program locations to be credited if the inspection locations selected strictly for RI-ISI purposes produce substantially less than a 10% sampling of the overall Class 1 weld population. As stated in Section 3.5 of this template, MNGP achieved a 9.2% sampling without relying on augmented inspection program locations beyond those selected by the RI-ISI process. The "Other" column has been retained in this table solely for uniformity purposes with the other RI-ISI application template submittals.
4. This one weld was selected for examination by both the FAC and RI-ISI Programs. Since FAC was the only damage mechanism identified for this weld, the FAC examination will be credited toward both programs.
5. These two welds were selected for examination by both the FAC and RI-ISI Programs. Since FAC was the only damage mechanism identified for these welds, the FAC examinations will be credited toward both programs.

Monticello Unit 1 - ISI Relief Request No. 2 (Rev. 1)
Reactor Vessel Circumferential Shell Welds
(note - italicized text clarifies / corrects typographical errors and omissions or describes actions taken to address implementation)

System: Reactor Vessel

Class: 1

Category: B-A

Item: B1.11

Reactor Vessel Circumferential Welds: VCBB-4, VCBB-3 and VCBA-2
(errantly named VCBB-2 on Rev.0)

Examination Requirements:

A September 8, 1992 revision to 10 CFR 50.55a(g)(6)(ii)(A) contains an augmented examination requirement to perform a one time volumetric examination of essentially 100% (>90%) of all circumferential and axial reactor pressure vessel (RPV) shell assembly welds. This rule revokes previously granted relief requests regarding the extent of volumetric examination on circumferential (B1.11) and longitudinal (B1.12) reactor pressure shell vessel welds. 10 CFR 50.55a(g)(6)(ii)(A) requires the augmented examinations to be performed as specified in the ASME Code Section XI (1989 Edition).

Monticello requests relief from the inspection of Reactor Vessel Circumferential (B-A) Welds Item B1.11 for the remaining term of the current license for Monticello *(during the 4th ISI Interval)*.

Basis For Relief:

Monticello reactor vessel circumferential welds were not inspected to the essentially 100% volumetric requirements during the 1st and 2nd ISI inspection intervals. A relief request (RR-01) was granted on the basis of inadequate accessibility and unnecessary radiation exposure during the first two 10 year inspection intervals. Upon submittal of the 3rd Interval ISI Inspection Plan, Rev. 1 (July 29, 1993), continuance for the 1st and 2nd interval relief request (RR-01) was requested. That relief request (RR-01) was denied on the basis of 10 CFR 50.55a(g)(6)(ii)(A), effective September 8, 1992, requiring augmented examination for reactor vessel shell assembly welds.

On November 10, 1998, the NRC issued Generic Letter 98-05 "BOILING WATER REACTOR LICENSEES USE OF BWRVIP-05 REPORT TO REQUEST RELIEF FROM AUGMENTED EXAMINATION REQUIREMENTS ON REACTOR PRESSURE VESSEL CIRCUMFERENTIAL WELDS." This generic letter permits licensees to request permanent relief from the inservice inspection requirements of 10 CFR 50.55a(g)(6) for the volumetric examination of circumferential reactor

pressure vessel welds if it can be demonstrated that: (1) at the expiration of the license, the circumferential welds will continue to satisfy the limiting conditional failure probability for circumferential welds in the staff's July 28, 1998, safety evaluation, and (2) operator training and procedures limit the frequency of cold over-pressure events to the amount specified in the staff's July 28, 1998, safety evaluation (Reference 1). The following is our evaluation of these two criteria.

(1) Limiting Conditional Failure Probability

The values established in Attachment 1 were calculated in accordance with the guidelines of Regulatory Guide 1.99, Revision 2. The chemistry factor for the limiting circumferential weld recorded in Attachment 1 is Monticello (manufactured by Chicago Bridge & Iron (CB&I)) plant specific (Reference 3). This value is slightly higher than the USNRC's value which utilizes Table 1 of Regulatory Guide 1.99, Revision 2. As a result, the Monticello mean RT_{NDT} value of 46.9° F is slightly higher than the USNRC's limiting plant specific analysis mean RT_{NDT} value of 44.5° F listed in Reference 5 for the CB&I reference case. A recent safety evaluation (Reference 6) identified a Brunswick Unit 1 (manufactured by CB&I) mean RT_{NDT} value of 46.5° F which also exceeded the corresponding CB&I mean RT_{NDT} value specified in Reference 5. To validate the acceptability of the failure probability in this case, the staff performed calculations using the Brunswick Unit 1 value of 46.5° F. The calculations showed only a small increase in failure probability ($6 \times 10^{-7}/\text{yr}$ for Brunswick vs. $2 \times 10^{-7}/\text{yr}$ for the reference case). Since the Monticello mean RT_{NDT} is only slightly higher than the Brunswick Unit 1 mean RT_{NDT} (46.9° F vs. 46.5° F), it is expected that only a small increase in failure probability will result for Monticello.

The overall limiting conditional failure probability for circumferential welds across the BWR fleet listed in Reference 5 is $8.17 \times 10^{-5}/\text{yr}$ (calculated by the staff for the Babcock & Wilcox (B&W) reference case). This limiting conditional failure probability is based on reactor vessel data that produced a calculated mean RT_{NDT} of 99.8° F (Reference 5). Since the Monticello mean RT_{NDT} (46.9° F) is less than 99.8° F, it follows that the Monticello conditional failure probability will also be less than the limiting failure probability listed in Reference 5. Attachment 2 provides a plot of mean RT_{NDT} against failure probability using results documented in References 5 and 6. Based on this trend, the conditional failure probability for Monticello is estimated to be less than $1 \times 10^{-6}/\text{yr}$.

In conclusion, the above discussion demonstrates that the circumferential welds of the Monticello RPV will continue to satisfy the limiting conditional failure probability listed in Reference 5.

(2) Training and Procedures

The cold pressurization events considered in Reference 1 (i.e., inadvertent injections, condensate injection, CRD injection, loss of RWCU, actual event) were reviewed to identify the critical operator actions that were assumed to occur to mitigate these events. Procedures and training were reviewed to ensure that those critical operator actions would occur with a high degree of certainty so that the low temperature over pressurization (LTOP) event frequency is maintained less than the amount specified in Reference 1 (i.e., $1 \times 10^{-3}/\text{yr}$). System design was also considered in this review to assure that the associated systems function as described in Reference 1. Results of our review indicate that in general, procedures, training and system design ensure that the evaluations contained in Reference 1 are valid for Monticello. Following are the detailed results of our review:

1. Inadvertent Injections.

The evaluation provided in Reference 1 (paragraph 2.6.1.1) is applicable to Monticello with one exception. The evaluation considered the availability of automatic trips of high pressure injection systems on high water level. Review of Monticello procedures identified that during performance of reactor feedwater pump (RFP) testing during cold shutdown, the high reactor water level trip is bypassed. Measures are taken procedurally to close valves that prevent water from getting to the vessel. *Monticello enhanced Operations Procedure B.06.05-05 to further assure the isolation of flow to the vessel.*

2. Condensate Injection.

The evaluation provided in Reference 1, (paragraph 2.6.1.2) is applicable to Monticello. Operating procedures provide precautions which indicate that reactor water level is to be closely monitored when starting a condensate pump. This aids in assuring that an overflow event which could lead to an LTOP event does not occur. In order to assure that operations personnel understand that an overflow event has the potential to lead to an LTOP event, *Monticello enhanced Operations Procedure B.06.05-05 to identify an LTOP event as a potential consequence of an overflow event.* Monticello also has high reactor water level and high reactor pressure alarms in the control room that warn operators when high level/pressure limitations are being exceeded which provides further assurance that an LTOP event will not occur due to condensate injection.

3. CRD Injection.

The evaluation provided in Reference 1, (paragraph 2.6.1.3), is applicable to Monticello. The evaluation notes that the risk of cold over pressurization due to CRD injection may be higher if a loss of station power were to occur during reactor vessel pressure testing. *Monticello revised vessel pressure testing procedures 0255-20-IIA-1 and 0255-20-IIC-1 to provide precautions that ensure proper response to a loss of station power (i.e., RWCU and Recirculation pumps are restored along with restoration of CRD).*

4. Loss of Reactor Water Cleanup (RWCU)

The evaluation provided in Reference 1, (paragraph 2.6.1.4), is applicable to Monticello. Monticello has procedures in place to provide guidance for recovery measures following a scram. In the event that a scram occurs that results in a RWCU isolation, procedural guidance is provided which consists of restoring the RWCU system as soon as the cause of the isolation is identified and resetting the reactor scram as soon as possible in order to limit cold water injection into the vessel. Also, procedural guidance is provided for dealing with recirculation loop or vessel stratification so that an excessive amount of cold water is not distributed throughout the reactor vessel during the restart of a tripped recirculation pump(s). *Monticello added a precaution in the Operations Procedure C.4-A for RWCU restoration in order to further inform the operations personnel of the potential of an LTOP event occurring during SCRAM recovery.*

5. Actual Event.

General Electric issued RICSIL No. 049, Inadvertent Vessel Pressurization, in response to the actual event discussed in Reference 1, (paragraph 2.6.1.5). Our assessment of the RICSIL indicated that the likelihood of a similar event occurring at Monticello is very low. Procedures require that the reactor vessel remain vented at all times during cold shutdown except as permitted by approved procedures. The reactor vessel pressure test procedure allows the vent valves to be closed during cold shutdown. During the pressure test, strict procedural guidance is provided for administratively monitoring vessel pressure and temperature while controlling CRD injection and RWCU reject in order to assure a smooth, controlled method of increasing or decreasing pressure while vessel temperature is being maintained above the required P-T limits. If reactor pressure exceeds the specified limits, during the test, the CRD pump is immediately tripped. In addition to the above mentioned

procedural guidance, a requirement is included to perform an "Infrequent Test or Evolution Briefing" with all essential personnel. This 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 the process in which the test would be aborted if plant systems responded in an adverse manner.

The above evaluations show that system design and procedures, including the proposed enhancements, minimize the probability of LTOP events at Monticello. Our review of training indicated that licensed operator training addresses LTOP events. Initial licensed operator simulator training, for example, includes performance of surveillance tests which ensure pressure-temperature curve compliance during plant heatup and cooldown. *Additionally Monticello created Request for Training (RFT) 20012810 to provide training to operations personnel on the specific scenarios and events evaluated in Reference 1, (paragraph 2.6.1.1-5), including the features of system design and procedural controls that prevent such events at Monticello.*

Conclusion:

The Monticello mean RT_{NDT} value of 46.9° F is less than the mean RT_{NDT} value of 99.8° F corresponding to the B&W limiting reference case. Since the Monticello RT_{NDT} is much less than the limiting RT_{NDT} , the Monticello conditional failure probability will be well below the limiting conditional failure probability of $8.17 \times 10^{-5}/\text{yr}$ calculated by the Staff for the corresponding B&W reference case.

A thorough review of existing procedures, operator training and system design identified improvement opportunities that Monticello has committed to implement. With the recommended enhancements to existing procedures and operator training and with the current design capabilities of the associated systems, the LTOP event frequency is limited to the amount specified in Reference 1, ($1 \times 10^{-3}/\text{yr}$).

Based on these evaluations the conditions for requesting relief from the inservice inspection requirements of 10 CFR 50.55a(g)(6)(ii)(A), for the volumetric examination of circumferential reactor pressure vessel welds in accordance with ASME Code Section XI (1995 Edition with 1996 Addenda), Table IWB-2500-1, Examination Category B-A, Item B1.11, Circumferential Welds, are satisfied. Relief is hereby requested in accordance with 10 CFR 50.55a(a)(3)(I). The proposed alternative examinations provide an adequate level of quality and safety.

Alternate Examination:

As an alternative to the inspection requirements of ASME Code Section XI (1995 Edition with the 1996 Addenda) Category B-A, Item B1.11, 100% volume requirement, we propose that the following examination methodology be used. The alternative examination requested maintains essentially 100% (>90%) examination of reactor vessel longitudinal (axial) shell welds, Code Category B-A, Item B.1.12. Two to three percent of the circumferential RPV shell welds Code Category B-A, Item B1.11, Code Category B-A, Item B1.11 will be inspected at the intersections of the axial and circumferential welds. This is consistent with the alternate inspection requirements as specified in GL 98-05. This alternative is capable of detecting weld degradation sufficient to insure the integrity of the reactor pressure vessel boundary, and is the same as that described in the NRC SER (Reference 1).

Time Period Relief is Requested For:

Relief is presently approved by the NRC for the remaining term of the current Monticello license during the 4th 10 year interval. (Reference 7)

References:

1. NRC Safety Evaluation Report of Topical Report by the Boiling Water Reactor Vessel and Internals Project: "BWR Reactor Pressure Vessel Shell Weld Inspection Recommendations, BWRVIP-5," (TAC No. M93925), July 28, 1998.
2. General Electric Report SASR 87-61, DRF137-0010, "Revision of Pressure-Temperature Curves to Reflect Improved Beltline Weld Toughness Estimate for the Monticello Nuclear Generating Plant – Rev. 1," December 1987.
3. NSP Letter to NRC, Submittal of Report on Reactor Pressure Vessel Specimen Test, December 21, 1998.
4. General Electric Report GENE-B13-01796-1, "Reactor Vessel Fracture Toughness Engineering Evaluation – Task 5.4," March 13, 1996

5. NRC Safety Evaluation Report of Topical Report by the Boiling Water Reactor Vessel and Internals Project: "Supplement to Final Safety Evaluation of the BWR Vessel and Internals Project BWRVIP-5 Report (TAC No. MA3395)," March 7, 2000.
6. Brunswick Steam Electric Plant, Unit No's 1 and 2 – Safety Evaluation for Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(i) for Reactor Vessel Circumferential Shell Weld Examinations (TAC No's MA9299 and MA9300).
7. NRC Letter, "Monticello Nuclear Generating Plant - Approval of Relief Request Number 12 of the Third 10 Year Inservice Inspection Program," (TAC No. MB0261), July 27, 2001.

Status:

Approved July 27, 2001 for continued use in 4th Interval (...*remainder of current 40-year operating license for the unit*'), (See Reference #7 above).

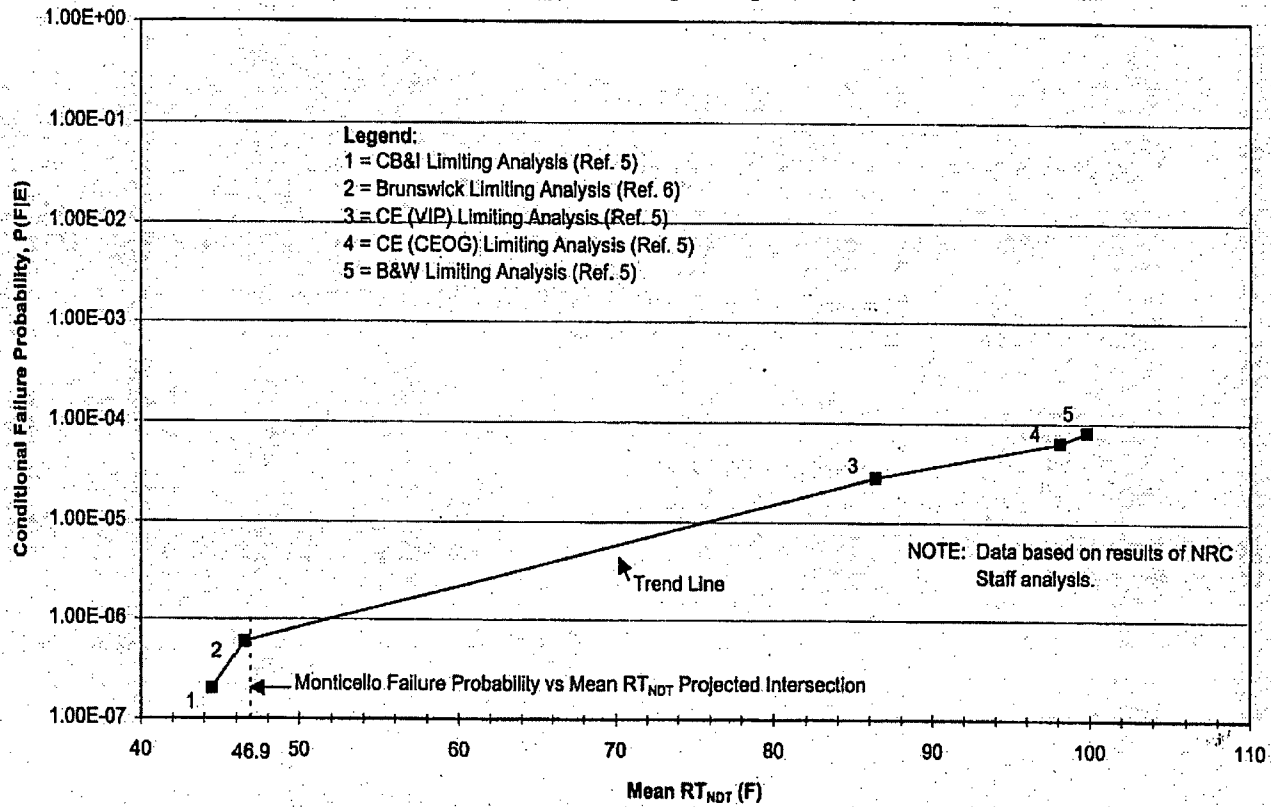
ATTACHMENT 1

Comparison of Monticello RPV Parameters
 to
 NRC Limited Plant Specific Parameters

Parameter Description	Monticello Parameters for the Bounding Circumferential Weld	USNRC Limiting Plant Specific Analyses Parameters SER Table 2.6-4 (Reference 5)	
		CB&I	B&W
Cu, wt%	0.10 (Reference 2)	0.10	0.31
Ni, wt%	0.99 (Reference 2)	0.99	0.59
CF (Chemistry factor)	138.5 (Reference 3)	134.9	196.7
EOL ID Fluence, x 10 ¹⁹ n/cm ²	0.51 (Reference 4)	0.51	0.095
ΔRT_{NDT} , °F	112.5	109.5	79.8
RT_{NDT} (u) °F	-65.6 (Reference 2)	-65	20
Mean RT_{NDT} , °F	46.9	44.5	99.8
Conditional Failure Probability P(FIE)	<1x10 ⁻⁶ Attachment 2	2x10 ⁻⁷	8.17x10 ⁻⁵

ATTACHMENT - 2

Circ. Weld Failure Probability vs Mean RT_{NDT} Trend Using Limiting CE, CB&I, B&W and Brunswick Data



Monticello Unit 1 - Relief Request No. 3 (Rev. 0)

Appendix VIII Supplement 4

System/Component(s) For Which Relief Request Will Be Used

Code Class: Class 1
Reference: ASME, Section XI, Tables IWB-2500-1
(1995 Edition, 1996 Addenda)
Examination Category: B-A
Item Number: B1.10, B1.20
Description: Alternative Requirement to Appendix VIII, Supplement
4 "Qualification Requirements for the Clad/Base Metal
Interface of Reactor Vessel"
Component Numbers: All

Code and 10 CFR 50.55a Requirements:

10 CFR 50.55a(b)(2) was amended on September 22, 1999 to reference Section XI of the ASME Code through the 1995 Edition with the 1996 Addenda (64 FR 51370). This amendment provides an implementation schedule for the supplements to Appendix VIII of Section XI to the 1995 Edition with the 1996 Addenda.

Supplement 4 to Appendix VIII, Subparagraph 3.2(c) imposes three statistical parameters for depth sizing. The first parameter, 3.2(c)(1), pertains to the slope of a linear regression line. The linear regression line is the difference between measured versus true value plotted along a through-wall thickness. The second parameter, 3.2(c)(2), pertains to the mean deviation of flaw depth. The third parameter, 3.2(c)(3), pertains to a correlation coefficient.

The Final Rule was amended by Federal Register Notice (66FR16391) dated March 26, 2001. This amendment specified the use of a flaw length sizing tolerance criterion of 0.75 inch Root Mean Square (RMS) for reactor vessel qualification to be used in conjunction with the 0.15 inch RMS for depth sizing specified in the Rule in lieu of paragraphs 3.2(a) and 3.2(b). In the Notice, there was no reference to the elimination of the statistical parameters of Paragraph 3.2(c), which were intended for use with paragraphs 3.2(a) and 3.2(b) of Appendix VIII, Supplement 4. There was no amendment statement included to reflect the use of the RMS error calculations for depth and length sizing in lieu of Paragraph 3.2(c).

Basis for Alternative Examination:

This relief request was developed using the Electric Power Research Institute (EPRI) Performance Demonstration Initiative (PDI) ASME Section XI, Appendix VIII Implementation Guideline. It is modeled after the sample request for relief associated with the Supplement 4 published discrepancies: Appendix D, "Sample Request for Relief – Alternative Length Sizing Criteria (Revised)." (Reference 5)

The U.S. nuclear utilities created PDI to implement demonstration requirements contained in Appendix VIII. PDI developed a performance demonstration program for qualifying UT techniques. PDI does not use paragraph 3.2(c) for sizing qualifications. The solution for resolving the differences between the PDI program and the Code was for PDI to participate in the development of a Code case that reflected PDI's program. The Code case was presented to ASME for discussion and consensus building. NRC representatives participated in this process. ASME approved the Code Case and published it as Code Case N-622, "Ultrasonic Examination of RPV and Piping, Bolts and Studs, Section XI, Division 1." (Reference 6) The NRC first approved the use of Code Case N-622 for Florida Power and Light Company's St. Lucie Plant Unit 2 (TAC No. MA5041). (Reference 7)

Operating in parallel with the actions of PDI, the Staff incorporated most of Code Case N-622 criteria in the Rule published in the Federal Register, 64 FR 51370 dated September 22, 1999. This amendment requires the implementation of the ASME Code Section XI, Appendix VIII, Supplement 4, 1995 Edition with the 1996 Addenda. The required implementation date for Supplement 4 was November 22, 2000. Appendix IV to Code Case N-622 contains the proposed alternative sizing criteria which has been authorized by the Staff. However, the sizing parameters printed in the published Rule differed from the sizing parameters implemented by the PDI Program and Code Case N-622.

On January 12, 2000, NRC Staff, representatives from the EPRI Nondestructive Examination Center, and representatives from PDI participated in a conference call. The discussion during the conference call included the differences between Supplement 4, "Qualification Requirements for the Clad/Base Metal Interface of Reactor Vessel," to Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," Paragraph 10 CFR 50.55a(b)(2)(xv)(C)(1) in the rule (Federal Register, 64 FR 51370), and the implementation of Supplement 4 by the PDI Program. (Reference 8)

In a public meeting on October 11, 2000 at NRC offices in White Flint, MD, the PDI identified the discrepancy between the PDI Program and statistical parameters required by Subparagraph 3.2(c). The Staff agreed that the inclusion of the statistical parameters of Paragraph 3.2(c) of Supplement 4 to Appendix VIII was an oversight. The NRC agreed that Paragraph 10 CFR 50.55a(b)(2)(xv)(C)(1) should have excluded Subparagraph 3.2(c) as a requirement. (Reference 9)

In Subparagraph 3.2(c), the linear regression line is the difference between measured versus true value plotted along a through-wall thickness. For Supplement 4 performance demonstrations, a linear regression line of the data is not applicable because the performance demonstrations are performed on test specimens with flaws located in the inner 15% through-wall. The difference between measured versus true value produce a tight grouping of results that resemble a shotgun pattern. The slope of a regression line from such data is extremely sensitive to small variations, thus making the parameter of Subparagraph 3.2(c)(1) a poor and inappropriate acceptance criterion.

The value used in the 3.2(c)(2) is too lax with respect to evaluating flaw depths within the inner 15% of wall thickness. Therefore, Monticello proposes to use the more appropriate criterion of 0.15 inch RMS of 10 CFR 50.55a(b)(2)(xv)(C)(1), that modifies Subparagraph 3.2(a) as the acceptance criteria.

Subparagraph 3.2(c)(3) pertains to a correlation coefficient. This value of correlation coefficient is inappropriate for this application since it is based on the linear regression from Subparagraph 3.2(c)(1).

The NRC Staff previously approved MNGP use of this Alternative to the Code and 10 CFR 50.55a on August 22, 2001 (TAC No. MB1833) for use during the 3rd ISI Interval. (Reference 10)

Alternative Examination:

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested to use the RMS Error calculations in lieu of the statistical parameters of Subparagraph 3.2(c) in Supplement 4 of the 1995 Edition 1996 Addenda of ASME Section XI Appendix VIII. As discussed above and demonstrated by the PDI, this will provide an acceptable level of quality and safety.

Implementation Schedule:

This alternative is requested for continued use for the 4th Ten-Year Interval of the Inservice Inspection Program for Monticello.

References:

1. ASME Boiler and Pressure Vessel Code, Section XI, 1995 Edition with 1996 Addenda
2. Federal Register, Rules and Regulations, September 22, 1999 (64 FR 51370)
3. Federal Register Notice, Industry Codes and Standards, Amended Requirements, March 26, 2001 (66 FR 16391)
4. Federal Register, Rules and Regulations, September 26, 2002 (67 FR 60520)
5. Performance Demonstration Initiative (PDI), "Guideline for Implementation of Appendix VIII and 10CFR50.55a," Volume One, Programmatic Implementation, Rev. 2, Appendix D, October 14, 2000
6. ASME Section XI Nuclear Code Case N-622, "Ultrasonic Examination of RPV and Piping, Bolts, and Studs"
7. NRC Staff letter to Mr. T. F. Plunkett, Florida Power and Light Company, September 23, 1999.
8. Meeting Summary, Teleconference between NRC and representatives from PDI, D.G. Naujock, Metallurgist, NDE & Metallurgy Section, to Edmund J. Sullivan, Chief NDE & Metallurgy Section, Chemical Engineering Branch, Division of Engineering, U.S. NRC, March 6, 2000.
9. NRC Memo, "Summary of Public Meeting Held on October 11, 2000, with PDI Representatives," November 13, 2000
10. NRC Letter to Nuclear Management Company, "MNGP – Evaluation of Relief Request No. 13 for the Third 10-Year Interval Inservice Inspection Program," (TAC No. MB1833), August 22, 2001

11. NRC Letter to Nuclear Management Company, "Relief Request Nos. 3 and 6 for the Fourth 10-Year Interval of the Inservice Inspection Examination Plan" (TAC No. MB6896), March 28, 2003

Status:

Approved on March 28, 2003 for use during the 4th Interval. (See Reference 11 above)

**Monticello Unit 1 - ISI Relief Request No. 4 (Rev.0)
(restructured and resubmitted)**

Reactor Vessel Stabilizer Bracket Welds

ASME CODE COMPONENT AFFECTED

Code Class:	Class 1
Code Subsection:	IWB
Code Examination Category:	B-K, Welded Attachments for Vessels, Piping, Pumps, and Valves
Code Item No.:	B10.10
Parts Examined:	Pressure Vessels, Welded Attachments
Examination Method:	Surface
Examination Frequency:	1st Interval and each Successive Interval
System:	Reactor Pressure Vessel (RPV)
Component Description:	RPV Stabilizer Bracket welds to the RPV
ISI Summary Number	102650
Component ID:	Vsl Stblzr Lugs, (Quantity of 4)
Description of Relief:	Proposed alternative to the Code examination frequency requirements

APPLICABLE CODE EDITION AND ADDENDA

American Society of Mechanical Engineers (ASME) Section XI, 1995 Edition with 1996 Addenda is the Code of Record for the 4th ISI Interval.

APPLICABLE CODE REQUIREMENT

TABLE IWB-2500-1, CATEGORY B-K, ITEM B10.10, INCLUDING NOTE 2

In each Inspection Interval, each welded attachment and each identified occurrence is required to be examined with a surface examination method (described in IWA-2220.)

NOTE (2) The extent of the examination includes essentially 100% of the length of the attachment weld at each attachment subject to examination.

REASON FOR REQUEST

Monticello Nuclear Generating Plant (MNGP) is a General Electric Type 3 Boiling Water Reactor (BWR-3) with a Mark I Containment. The reactor vessel was designed and built to the 1965 Edition of ASME Section III with Summer 1966 Addenda. Piping systems were designed in accordance with the 1967 Edition of USA Standard (USAS) Code for Pressure Piping B31.1.0. "Power Piping." Construction Permit CPPR-31 was issued on June 19, 1967 and full commercial operation began on June 30, 1971.

Plants of this type were designed and erected prior to the examination access requirements of Section XI. The Atomic Energy Commission (AEC) mandated the rules of ASME Section XI in 1971 for all nuclear plants with construction permits issued after January 1, 1971, and in 1976, they mandated use of ASME Section XI for all nuclear plants.

10CFR50.55a(g)(1) states *"For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued before January 1, 1971, components (including supports) must meet the requirements of paragraphs (g)(4) and (g)(5) of this section to the extent practical."*

10CFR50.55a(g)(4) states *"... components (including supports) which are classified as ASME Class 1, 2, and Class 3 must meet the requirements, except design and access provisions and preservice examination requirements, set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code and Addenda ..."* [Emphasis Added]

Four RPV stabilizer brackets are attached to the Class 1 RPV with full penetration fillet welds at 0°, 90°, 180°, and 270° RPV azimuth at an elevation of 994'-2". The RPV stabilizers are connected with flexible couplings to the brackets on the RPV and also to the biological shield wall. The RPV stabilizers, brackets, and their attachment welds are designed to withstand and resist local loads (jet reaction forces) and seismic loads while allowing axial and radial movement due to normal thermal growth. The RPV stabilizers brackets do not provide structural support during normal operation. The MNGP RPV has never experienced jet reaction forces or seismic events, therefore the stabilizers, brackets, and attachment welds have not experienced the loads for which they are designed.

The MNGP Mark I primary containment structure, or drywell, is shaped somewhat like an upside-down light bulb. The RPV stabilizer brackets are located in the higher, necked-down elevations of the drywell. This region of the drywell is a very limited access area; it was not designed with the intention of

providing access and accommodations normally considered necessary for a general work area.

The area around the stabilizers is extremely congested. The vessel stabilizer brackets are surrounded by mirror insulation that is secured by cable hangers and buckles, ventilation ductwork with support bracing, and electrical installations such as thermocouples. All of this equipment must be relocated and restored to provide access to the stabilizers for examination of the welds. Additionally, due to the location of the stabilizer brackets and the lack of a working platform at the stabilizer location a complex scaffold installation is required to provide access to the examination location.

The photos and reference drawings, attached to this request, show the physical obstacles imposed by the design and construction of the primary containment, RPV, ventilation ducting, RPV stabilizers, containment supports, and other systems. Combined, these obstacles as described below, create an unusually difficult hardship to overcome to provide access for the examination of the stabilizer bracket attachment welds that are specified by the Code.

In the course of scaffold installation and removal, interference removal and restoration, insulation removal and restoration, weld preparation, performance of the examination, and health physics monitoring, personnel would be subjected to significant radiation doses found in the drywell for lengthy durations. Dose survey maps taken from the recent refueling outages at this region of containment indicate dose rates in the general area to be 5 - 140 millirem per hour (mrem/hr). It is reasonable to expect that the contact dose rates at the bracket welds would be similar to those experienced at the nearby feedwater (986'-7" elevation) and main steam nozzles (999'-0" elevation). These dose rates range from 20 - 80 mrem/hr in the general nozzle area and 20 - 800 mrem/hr in contact with the components.

NMC estimates indicate that radiation exposure to personnel involved in the activities associated with examination of the four RPV Stabilizer Bracket Welds would result in 21.675 person-rem.

In summary, NMC has determined that:

1. MNGP is not subject to the access requirements of ASME code as described in 10CFR50.55a(g)(4) due to its age and design.
2. Access to the RPV stabilizer brackets is difficult due to their location, interferences, and surrounding equipment.
3. Radiological dose rates in the area of the RPV stabilizer brackets is high due to the proximity of the brackets to feedwater and main steam nozzles.

Therefore, pursuant to 10CFR50.55a(a)(3)(ii), NMC has determined that compliance with the Code requirement would result in hardship or unusual difficulty without a compensating increase in quality or safety

PROPOSED ALTERNATIVE AND BASIS FOR USE

As an alternative to the requirements of the ASME Section XI Code, Table IWB-2500-1, Category B-K, Item B10.10, NMC proposes to perform a surface examination on the stabilizer brackets if local (jet reaction forces) or seismic design loads are experienced.

The stabilizer brackets are located in a very limited access area of the drywell which precludes inadvertent damage to be imparted on the brackets such as rigging, climbing, arc strikes, etc. The RPV stabilizer bracket attachment welds have never experienced loads due to jet reaction forces or seismic events. The stabilizer brackets do not provide support during normal operation. This proposed alternative to the frequency

requirements of Table IWB-2500-1, Category B-K, Item B10.10 will provide an acceptable level of quality and safety.

DURATION OF PROPOSED ALTERNATIVE

NMC is requesting relief for the 4th 10-year Interval of the ISI Program for the Monticello Nuclear Generating Plant.

PRECEDENTS

This relief from the requirements of 10CFR50.55a and alternative to the Code was previously approved for 2nd and 3rd 10-year Intervals of the ISI program at Monticello:

- NRC Letter, "Monticello - Second Ten-Year Inservice Inspection (ISI) Program," (TAC No. 46510), November 29, 1990, Relief Request No. 51
- NRC Letter, "Evaluation of the Third 10-Year Interval Inservice Inspection Program Plan and Associated Requests for Relief for Monticello," (TAC No. M82545), October 18, 1994, Relief Request No. 2

Status:

Approved on January 6, 2005 for use during the 4th Interval, NRC Letter, "Fourth 10-Year Interval Inservice Inspection Program Plan Request for Relief No. 4" (TAC No. MC2222)

Monticello Unit 1 - ISI Relief Request No. 5 (Rev. 0)

Leakage at Bolted Control Rod Drive (CRD) Housing Connections

SYSTEM: Bolted CRD Housing Joint

Class: 1

Category: B-P

Item: B15.10

Code Examination Requirements:

IWA-5250(a)(2): If leakage occurs at a bolted connection on other than a gaseous system, one of the bolts shall be removed, VT-3 examined, and evaluated in accordance with IWA-3100.

Basis for Relief:

10 CFR Part 50, Section 50.55a(a)(3), which states, (in part):

“Proposed alternatives to the requirements of paragraphs (c), (d), (e), (f), (g), and (h) of this section or portions thereof may be used when...

(ii) Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.”

The CRD (Control Rod Drive) housings are flanged connections beneath the reactor vessel that are used to secure the 121 CRD mechanisms in position below the vessel. Each of the 121 CRD to CRD housing bolted joints utilizes eight bolts, washers, and nuts to hold the CRD mechanism in position. The joint also utilizes three hollow metal O-rings to provide a watertight seal capable of withstanding full reactor pressure at normal operating temperatures.

The CRD housing joints are VT-2 examined as part of the periodic Reactor Pressure Vessel Leakage and Hydrostatic pressure tests. These tests are conducted with the vessel temperature much less than the design operating temperature. For a typical test, the vessel temperature would be <212° F, as compared to a normal operating temperature of about 540° F. It is not unusual for these bolted joints to leak slightly during periodic reactor vessel pressure tests conducted at test temperatures below normal operating temperature.

This is a condition identified in the original design of the connection by the Architect/Engineer, General Electric (GE). GE developed guidance to permit evaluation of a leaking CRD housing bolted connection over a period of time, while at test pressure, to determine whether the leak will stop once the vessel heats up to normal operating pressure. This leakage evaluation criteria is incorporated into the VT-2 tests for these joints.

Compliance with Code Requirement IWA-5250(a)(2) represents a hardship (burden) in the case of the CRD housing bolted joints because:

- 1) Examining the bolting would involve the accumulation of considerable personnel radiation exposure, since the work must be performed in a relatively high dose rate area inside the drywell, immediately below the reactor vessel. Typical shutdown dose rates in the vicinity of the bolting flanges would be on the order of 50 to 100 mr/hr.
- 2) Since the reactor pressure vessel test is critical path item, the additional time needed to depressurize the vessel, remove the bolting, perform the exam, and then re-pressurize the vessel to retest the joint would delay plant startup from an outage by an equivalent amount of time. The cost of such delays is significant, since it is estimated that the cost of extending the duration of an outage is \$379,000 per day (including replacement power costs)(this is estimated cost submitted in 1993 (see TAC No. M82545 referenced in "Status" section)

Compliance with Code requirement IWA-5250(a)(2) would not result in a compensating increase in quality or safety because:

- 1) CRD Housing joint leakage during (relatively) low temperature testing is not unexpected due to the design of the bolted joint. This joint is unusual in that it has hollow metal o-rings that require the CRD housing bolts to be tightened within a specific torque range in order to function properly at normal operating temperature. Thus, the bolts cannot simply be tightened to stop leakage as might be done for a conventional gasketed joint. As noted previously, GE developed guidance to evaluate any CRD housing leakage to determine if the leakage will persist at normal operating temperature/pressure and should therefore be corrected.

- 2) Leakage that is found to be acceptable per the guidance is not considered adverse to quality or safety and need not be corrected prior to startup. This type of analysis is consistent with Section XI.
- 3) Code paragraph IWB-3142 allows analysis of the leakage for acceptability. Performance of the VT-3 bolting examination does not represent a corrective action for the joint leakage and will not reduce the likelihood of joint leakage upon retest. Therefore, the VT-3 bolting examination does not contribute to increased quality or safety.
- 4) The bolts in the CRD housing connection are periodically examined when the joint is disassembled, per Table IWB-2500-1, Item B7.80 (1995 Edition with no Addenda per 10CFR50.55A Paragraph (b)(2)(xxi)(B)) and Procedure 9309, "Changeout Selected CRD's – Maintenance" and Commitment No. M92076A. Four of the eight bolts on each housing joint were replaced with new bolts in 1991 under Work Control Record (WCR) 91-01909. It was also reported in General Electric SIL 483 that only three uniformly distributed housing bolts are required to support the CRD mechanism. These factors provide a high degree of confidence in the long term safety and integrity of the CRD housing joints.

Earlier Section XI code editions invoked by Monticello's 1st and 2nd Ten-Year Inspection Interval Programs did not include the subject examination requirement. During the 3rd Inspection Interval, Relief Request 7 was granted by the NRC in an SER dated October 18, 1994.

Alternate Examination:

Pursuant to 10 CFR 50.55a(a)(3)(ii), the following alternative is proposed. Any leakage found at a CRD housing bolted joint during a periodic pressure test performed at a temperature much less than operating temperature will be evaluated to determine whether it will stop leaking at operating temperature. If this evaluation shows the leak will stop as temperature increases to normal operating temperature, no further action will be taken. The acceptance criteria is based on guidance provided by General Electric and is included in the VT-2 tests for the joint (Note: This criteria was submitted for NRC review during the Request for Relief process previously approved on October 18, 1994, therefore it is not included in this submittal). If the leakage is determined to be unacceptable according to the General Electric guidelines and the joint is disassembled to correct the leak, any CRD bolting that is reused will be examined by the VT-1 examination method (10 CFR 50.55a(b)(2)(xxi)(B) dated September 26, 2002).

Upon approval of this Relief Request, MNGP commits to revise the applicable pressure test procedure to perform a VT-1 exam in lieu of a VT-3 exam specified by IWA-5250(a)(2) on all CRD bolting that will be reused when the GE acceptance criteria has been exceeded and disassembly is required to correct the leak.

Status:

Approved on June 9, 2003 for use during the 4th Interval, NRC Letter to Nuclear Management Company, "Fourth 10-Year Interval Inservice Inspection Program Plan Relief Request No. 5" (TAC No. MB6956)

Monticello Unit 1 - ISI Relief Request No. 6 (Rev. 0)

Appendix VII Annual Training

System/Component(s) For Which Relief Will Be Used:

Code Class: All
Reference: ASME, Section XI 1995 Edition 1996 Addenda,
Appendix VII, VII-4240
Examination Category: All
Item Number: All
Description: All NDE Examiners performing ultrasonic volumetric
examination in accordance with ASME Section XI,
1995 Edition 1996 Addenda and Appendix VII, Annual
Training.
Component Numbers: All

Code and 10 CFR 50.55a Requirement:

ASME Section XI, 1995 Edition, 1996 Addenda, Mandatory Appendix VII, Paragraph VII-4240: Supplemental training is required on an annual basis to impart knowledge of new developments, material failure modes, and any pertinent technical topics as determined by the Employer. The extent of this training shall be a minimum of 10 hours per year. A record of attendance and the topics covered during the training shall be maintained; however no examination is required.

10 CFR 50.55a, paragraph (b)(2)(xiv): All personnel qualified for performing ultrasonic examinations in accordance with Appendix VIII shall receive 8 hours of annual hands-on training on specimens that contain cracks. This training must be completed no earlier than 6 months prior to performing ultrasonic examinations at a licensee's facility.

Basis For Relief Request:

10 CFR 50.55a was amended in the Federal Register (Volume 64, No. 183 dated September 22, 1999) to require Appendix VIII – Supplements for accelerated implementation in accordance with ASME Section XI 1995 Edition, 1996 Addenda.

Basis For Relief Request (continued):

Paragraph 2.4.1.1.1 in the Federal Register (Volume 64, No. 183 dated September 22, 1999) during rule making contained the following statement: "The NRC had determined that this requirement (10 hours of training on an annual basis) was inadequate for two reasons. The first reason was that the training does not require laboratory work and examination of flawed specimens. Signals can be difficult to interpret and as detailed in the regulatory analysis for this rulemaking, experience and studies indicate that the examiner must practice on a frequent basis to maintain the capability for proper interpretation. The second reason is related to the length of training and its frequency. Studies have shown that an examiner's capability begins to diminish within approximately 6 months if skills are not maintained."

Thus, the NRC has determined that 10 hours of annual training is not sufficient practice to maintain skills and that annual Ultrasonic training shall be conducted in accordance with 10 CFR 50.55a(b)(2)(xiv) as amended in the Federal Register (Volume 64, No. 183 dated September 22, 1999) in lieu of ASME Section XI, 1995 Edition, 1996 Addenda, Appendix VII, Subparagraph VII-4240."

The latest amendment to 10 CFR 50.55a (Volume 67, No. 187 dated September 26, 2002), paragraph (b)(2)(xiv) further recognizes, and permits use of, analyzing prerecorded data from material or welds that contain cracks for meeting annual training requirements. However, these provisions apply to those sites implementing use of the 1999 Addenda through the latest Edition and Addenda referenced in paragraph (b)(2) of the Rule; Monticello is using the 1995 Edition with the 1996 Addenda as the Code of Record for the 4th ISI Interval.

Alternative Requirement:

Pursuant to 10 CFR 50.55a(a)(3)(i), Monticello proposes to use the more rigorous and detailed annual training requirements of 10 CFR 50.55a(b)(2)(xiv) in lieu of annual training requirements Appendix VII, paragraph VII-4240.

Therefore, all personnel qualified for performing Ultrasonic examinations in accordance with Appendix VIII - Supplements ASME Section XI, 1995 Edition, 1996 Addenda shall receive 8 hours of annual hands-on training on specimens that contain cracks or by analyzing prerecorded data from material or welds that contain cracks. This training will be completed no earlier than 6 months prior to performing ultrasonic examinations at the Monticello Nuclear Generating Unit.

Justification for Granting Relief:

This relief improves the performance of Appendix VIII - Supplement examinations by requiring NDE examiner performing Appendix VIII examinations to demonstrate proficiency by analyzing specimens that contain cracks or prerecorded ultrasonic data from material or welds that contain cracks prior to performing actual examinations. The proposed alternative will simplify record keeping, satisfy the needs of maintaining Ultrasonic examiner skills, and also provides an acceptable level of quality and safety.

Implementation Schedule:

The proposed alternative is requested for the 4th Ten-Year Interval of the Inservice Inspection Program for Monticello Nuclear Generating Unit.

References:

1. ASME Boiler and Pressure Vessel Code, Section XI, 1995 Edition with 1996 Addenda
2. Federal Register, Rules and Regulations, September 22, 1999 (64 FR 51370)
3. Federal Register, Rules and Regulations, September 26, 2002 (67 FR 60520)
4. NRC Letter to Nuclear Management Company, "Relief Request Nos. 3 and 6 for the Fourth 10-Year Interval of the Inservice Inspection Examination Plan" (TAC No. MB6896), March 28, 2003

Status:

Approved on March 28, 2003 for use during the 4th Interval. (See Reference 4 above)

Monticello Unit 1 - ISI Relief Request No. 7 (Rev.0)

Repair/Replacement, 2001 Edition

COMPONENT IDENTIFICATION

Code Classes: 1, 2, and 3
References: IWA, IWB, IWC, IWD, and IWF-4000 (IWX-4000)
Examination Category: Not Applicable
Item Number: Not Applicable
Description: Use of the 2001 Edition of Section XI to Govern Repair/Replacement Activities and Procedures (IWX-4000).
Component Numbers: All Class 1, 2, 3 and MC pressure retaining components and their supports.

CODE REQUIREMENT

IWX-4000 (ASME Section XI 1995 Edition with the 1996 Addenda, used for Class 1, 2, and 3 components) provides the rules and requirements for repair/replacement activities associated with pressure retaining components and their supports, including appurtenances, subassemblies, parts of a component, core support structures, metal containments and their integral attachments, and metallic portions of Class CC containments and their integral attachments.

IWX-4000 (ASME Section XI 1992 Edition with the 1992 Addenda, used for IWE components) provides the rules and requirements for the repair of pressure retaining components and their supports, including appurtenances, subassemblies, parts of a component, core support structures, metal containments and their integral attachments, and metallic portions of Class CC containments and their integral attachments, by welding, brazing, or metal removal. This article also provides the rules and requirements for the specification and construction of items to be used for replacements and installation of replacement items.

10 CFR 50.55a dated September 6, 1996 required the implementation of Subsections IWE and IWL of the 1992 Edition with the 1992 Addenda.

BASIS FOR RELIEF

The 1992 Edition with the 1992 Addenda to Section XI made several changes to Articles IWX-4000. Very few of these changes were technical in nature. Instead, the changes restructured some of the requirements, (ie. Combined IWX-4000 and IWX-7000 into one section) clarified others that were difficult to interpret, and eliminated redundant requirements. Of the actual technical changes made, these changes either added enhancements to the program or added requirements not applicable to Monticello.

Meeting both the 1995 with the 1996 Addenda and the 1992 with the 1992 Addenda of ASME Section XI would require the maintenance of two separate repair and replacement programs (one for the IWB, IWC, and IWD components per the 1996 Addenda of ASME Section XI and one for the 1992 Addenda for the containment vessel). Duplicate records to demonstrate compliance with the 1996 Addenda and the 1992 Addenda would also be required. This duplication of programs and records increases the man-hours necessary to maintain the Monticello Repair/Replacement Program without providing any increase in quality or safety.

The final rule (Federal Register/Vol. 67, No. 187, dated September 26, 2002) incorporates reference to the 1998 Edition through 2000 Addenda. Attached is a reconciliation of the changes made and a comparison of the 2001 Edition to the 2000 Addenda of Section XI. Each change related to Repair/Replacement Activities is addressed in the attachment to show it will be implemented at Monticello.

ALTERNATE EXAMINATION

This alternative is requested in accordance with 10CFR 50.55a(a)(3)(ii). Monticello Nuclear Generating Plant will use the 2001 Edition of ASME Section XI, to govern Repair/Replacement Procedures (IWX-4000) for Class 1,2,3, and MC pressure retaining components and their supports. Using the requirements contained in the 2001 Edition of ASME Section XI for Repairs/Replacements at the Monticello Nuclear Generating Plant will maintain the safety of the plant. The following table indicates the implementation of the 2001 Edition for Repair/Replacement Activities.

<u>Article</u>	<u>Topic</u>	<u>Bases</u>
IWA-1000	Scope and Responsibility	1996 Addenda
IWA-2000	Examination and Inspection	1996 Addenda
IWA-3000	Acceptance Standards	1996 Addenda
<u>IWA-4000</u>	<u>Repair/Replacements</u>	<u>2001 Edition</u>
IWA-5000	Pressure Tests (Periodic)	1996 Addenda
<u>IWA-5000</u>	<u>Pressure Tests (Repair/Replacements)</u>	<u>2001 Edition</u>
<u>IWA-6000</u>	<u>Records</u>	<u>2001 Edition</u>
<u>IWA-9000</u>	<u>Glossary</u>	<u>2001 Edition</u>
IWB-1000	Scope and Responsibility	1996 Addenda
IWB-2000	Examination and Inspection	1996 Addenda
IWB-3000	Acceptance Standards	1996 Addenda
IWB-5000	Pressure Tests (Periodic)	1996 Addenda
<u>IWB-5000</u>	<u>Pressure Tests (Repair/Replacements)</u>	<u>2001 Edition</u>
IWC-1000	Scope and Responsibility	1996 Addenda
IWC-2000	Examination and Inspection	1996 Addenda
IWC-3000	Acceptance Standards	1996 Addenda
IWC-5000	Pressure Tests (Periodic)	1996 Addenda
<u>IWC-5000</u>	<u>Pressure Tests (Repair/Replacements)</u>	<u>2001 Edition</u>
IWD-1000	Scope and Responsibility	1996 Addenda
IWD-2000	Examination and Inspection	1996 Addenda
IWD-3000	Acceptance Standards	1996 Addenda
IWD-5000	Pressure Tests (Periodic)	1996 Addenda
<u>IWD-5000</u>	<u>Pressure Tests (Repair/Replacements)</u>	<u>2001 Edition</u>

<u>Article</u>	<u>Topic</u>	<u>Bases</u>
IWE-1000	Scope and Responsibility	1992 Addenda
IWE-2000	Examination and Inspection	1992 Addenda
IWE-3000	Acceptance Standards	1992 Addenda
IWE-5000	Pressure Tests (Periodic)	Appendix J
<u>IWE-5000</u>	<u>Pressure Tests (Repair/Replacements)</u>	<u>2001 Edition w/ Appendix J</u>
IWF-1000	Scope and Responsibility	1996 Addenda
IWF-2000	Examination and Inspection	1996 Addenda
IWF-3000	Acceptance Standards	1996 Addenda
IWF-5000	Snubber Examinations and Tests	1996 Addenda

APPLICABLE TIME PERIOD

Relief is requested for the fourth ten-year interval of the Inservice Inspection Program for Monticello Nuclear Generating Plant.

Certificate of Reconciliation

The Certificate of Reconciliation provides the basis for revisions to the Monticello Nuclear Generating Plant's (MNGP) ASME Section XI "Repair/Replacement Program" (4AWI-09.04.03) in order to meet the 2001 Edition of ASME Section XI. On September 9, 1996, the Nuclear Regulatory Commission (NRC) issued a revision to 10 CFR 50.55a, implementing subsections IWE and IWL (IWL "Requirements for Class CC Concrete Components of Light-Water Cooled Plants" is not applicable to the Monticello Nuclear Generating Plant) is not of the 1992 edition, including the 1992 addenda of Section XI of the ASME Code. This required utilities to develop and implement a program for the examination of containments by September 9, 2001. Additionally, it required implementation of an IWE/IWL repair/replacement program effective September 9, 1996. The NMC is updating the MNGP Inservice Inspection (ISI) Program for the fourth ten-year interval to meet the 1995 Edition with the 1996 Addenda. Because of the hardship to maintain two separate Repair/Replacement Programs, this alternative is proposed to allow the use of the 2001 Edition of ASME Section XI. This reconciliation is completed to provide justification for allowing the use of the 2001 Edition for Class 1, 2, 3 and MC pressure retaining components and their supports.

The current revision of 10CFR50.55a requires ASME Section XI Programs to follow the 1995 Edition as amended by the 1996 Addenda of ASME Section XI for Class 1, 2, and 3 components and the 1992 Edition as amended by the 1992 Addenda for Class MC components. There are some general issues to discuss prior to delineating the specific changes that have been made to the ASME Section XI Code (2000 Addenda to 2001 Edition). By performing the reconciliation from the 1992 Addenda, the reconciliation from the 1996 Addenda is covered as well.

- 1) The NRC has reviewed and approved with some exceptions the 1998 Edition through 2000 Addenda of the code. This has been included in the Final Rule (dated September 26, 2002). Those specific exceptions made to the rules for repair/replacement activities are included in the implementation of the 2001 Edition.
- 2) The NMC ISI requirements for MNGP will be based on the 1995 Edition as amended by the 1996 Addenda.
- 3) The Periodic Pressure Testing requirements will be based on the 1995 Edition as amended by the 1996 Addenda. While the pressure testing requirements for repair/replacement activities will be based on the 2001 Edition.

- 4) The reconciliation attached addresses the changes contained within the IWA-4000 paragraphs. In addition, any significant changes identified within any related requirements are addressed.

Each change is categorized as:

Editorial (E) – Those changes that are of an editorial nature like typographical errors or misspelled words.

Technical Significant (TS) – Those changes that effect the technical requirements and either reduce or increase those requirements. These changes are described in more detail as to their applicability to MNGP.

Technical (T) – Technical changes that are only used for clarification of an existing requirement.

Non-significant (TN) – Those changes that are not technical in nature, but could not be classified as editorial or just a relocation of existing requirements.

ISI RELIEF REQUEST NUMBER: No. 7		
Certificate of Reconciliation		
2001 Edition		
IWA-4110(b)	Revised to insert the words "Thermal metal removal" to clarify that thermal metal removal activities fall within the scope of IWA-4000	TS (Note 1)
IWA-4230	This was added to relocate the requirements of IWA-4451 "Helical Coil Threaded Inserts". This relocation places these requirements in IWA-4200 "Material" which is appropriate since they deal primarily with helicoil material requirements.	TN
IWA-4400	Retitled to "Welding, Brazing, Metal Removal, and Installation". This was retitled specify that metal removal rules apply to all Section XI repair activities.	TN
IWA-4410	This was rewritten to make its contents consistent with the revised title. It is also revised to clarify that mechanical metal removal not associated with defect removal is not within the scope of IWA-4400.	T
IWA-4411	This is a new paragraph titled "Welding and Brazing". This new paragraph serves to consolidate the requirements applicable only to welding and brazing, and to clarify the distinction between when Construction Code requirements apply and when IWA-4400 requirements apply.	T

ISI RELIEF REQUEST NUMBER: No. 7 Certificate of Reconciliation		
IWA-4412	This is a new paragraph titled "Defect Removal". This new paragraph serves to clarify that the requirements of IWA-4420 are mandatory for all defect removal activities, and to direct the user to these requirements.	T
IWA-4413	This is a new paragraph titled "Thermal Metal Removal". This new paragraph serves to clarify that the requirements of IWA-4461 are mandatory for all thermal metal removal activities, and to direct the user to these requirements.	T
IWA-4420	Revised title to "Defect Removal Requirements". This revision makes the title consistent with the changes described below.	TN
IWA-4421	Revised to "General Requirements" with the following specific changes: <ul style="list-style-type: none"> i) The second sentence of para. (a) is moved to IWA-4421. ii) The last sentence of para. (a) is dropped, since IWA-4412 now invokes requirements for defect removal and associated NDE. iii) The remainder of the text from IWA-4421(a), (b), and (c) is reorganized and moved to IWA-4411(a) and (b), except that the final sentence, "A Report of Reconciliation shall be prepared." has been deleted to make this paragraph consistent with the changes made. 	TN

ISI RELIEF REQUEST NUMBER: No. 7		
Certificate of Reconciliation		
IWA-4422	<p>Revised to "Defect Evaluation and Examination". This change makes the title consistent with the content changes described for IWA-4422.1.</p> <p>IWA-4421.1 was changed as follows:</p> <ul style="list-style-type: none"> i) Title changed to "Defect Evaluation" ii) The first sentence of IWA-4422.1(a) is deleted. The requirement that the defect removal process comply with 4421 is unneeded, as it is redundant with the new IWA-4421 (a) through (d) iii) The third sentence of IWA-4422.1(a) is deleted. This deleted sentence stated, "The component is acceptable for continued service if the resulting section thickness created by the cavity is at least the minimum required thickness." This sentence is deleted for two reasons: <ul style="list-style-type: none"> 1) It is redundant with the proceeding sentence in IWA-4422.1(a) and 2) It implies that all defect removal operations involve metal removal and creation of a cavity. Several repair types do not involve metal removal or cavity creation. 	TN
IWA-4430	This paragraph was deleted. Its contents were reworded and relocated to IWA-4411(f).	TN
IWA-4450	This was deleted from the Code in its entirety. Use of the ASME Code to mandate compliance with manufacturer's recommendations is considered inappropriate and constitutes the basis for deleting this requirement.	TN
IWA-4451	This was renumbered as IWA-4134 and is relocated accordingly. This relocation is consistent with the contents of IWA-4451, which address installation of helical-coil threaded inserts. The installation of helical-coil threaded inserts does not fall within the scope of IWA-4400.	TN
Table IWA-4461.1-1	This table was revised to delete reference to P-1 materials. This revision is editorial in nature, and is incorporated to make Table-4461.1 consistent with IWA-4461.1 and 4461.2. The revision for preheat of P-1 materials prior to thermal metal removal was deleted by a prior revision to IWA-4460, but Table IWA-4461.1 was not revised to reflect this revision.	E

ISI RELIEF REQUEST NUMBER: No. 7		
Certificate of Reconciliation		
IWA-4461.4	<p>Title was revised to "Alternatives to Mechanical Processing". This change is necessary to accommodate a newly added alternative to mechanical processing after thermal metal removal, which is addressed in IWA-4461.4.2. The two alternatives are addressed in new paragraphs IWA-4461.4.1 and IWA-4461.4.2.</p> <p>IWA-4461.4.1 describes the qualification process whereby thermal metal removal is permitted without subsequent mechanical processing. No changes were made to these requirements other than paragraph renumbering.</p> <p>IWA-4461.4.2 describes the evaluation process where by thermal metal removal is permitted without subsequent mechanical processing. This alternative enables an Owner to perform a documented evaluation to determine whether elimination of mechanical processing is acceptable. A footnote was added to define the term "Mechanical Processing"</p>	TS (Note 1)
IWA-4462	This was revised to "Mechanical Defect Removal Processes". IWA-4462(a) is replaced with wording that clarifies the applicability of this paragraph to defect removal activities only.	TN
IWA-4500	Title changed to "Examination and Testing"	TN
IWA-4520(a)	<p>This was revised to add two specific exceptions. These exceptions are as follows:</p> <ul style="list-style-type: none"> i) IWA-4521(a)(1) was revised to exempt Class 3 base material repairs from volumetric examination when full-penetration butt welds in the same location do not require volumetric examination. ii) IWA-4521(a)(2) was revised to invoke the examination requirements of IWA-4600 and 4700 in lieu of Construction Code examinations for all repairs using IWA-4600 or 4700. This exception invokes IWA-4600 NDE requirements for all IWA-4600 welding, and invokes IWA-4700 NDE requirements for IWA-4700 welding. This change clarifies that use of IWA-4600 and IWA-4700 welding alternatives and also mandates use of the associated NDE requirements. 	TS (Note 1)

ISI RELIEF REQUEST NUMBER: No. 7 Certificate of Reconciliation		
IWA-4600(a)	This was revised to delete the words "and nondestructive examination requirements". These words are deleted for clarification. The underwater welding alternative requirements of IWA-4660 apply in lieu of Construction Code requirements; however, IWA-4660 invokes Construction Code NDE requirements. Since IWA-4660 invokes Construction Code NDE requirements, it is incorrect to state that 4660's requirements are "in lieu of" Construction Code NDE requirements.	TN
IWA-4610	This was revised to "General Requirements for Temperbead Welding of all Materials"	TN

ISI RELIEF REQUEST NUMBER: No. 7		
Certificate of Reconciliation		
IWA-4611	<p>IWA-4611.1(a), (b) and (c) were deleted and alternative requirements were added.</p> <ul style="list-style-type: none"> i) The defect removal requirements of 4611.1(a) have been moved to IWA-4421.1. The existing 4611(a), therefore is redundant and is no longer needed. ii) The IWA-4611.1(b) requirement that “the original defect shall be removed” has been revised to match what the original intent was by the words “the original defect shall be reduced in size to a level that meets the applicable Construction Code NDE acceptance criteria. The requirement for compliance with Construction Code acceptance criteria was added to IWA-4624.2, 4634.2, 4644.2 and 4654.2. iii) The IWA-4611.1(c) requirements for the Repair/Replacement Program and Plan are redundant with IWA-4150. Deletion of this paragraph eliminates this redundancy. <p>IWA-4611.1(a), (b), and (c) additions are as follows:</p> <ul style="list-style-type: none"> i) IWA-4611.1(a) now consists of a reference to IWA-4422.1. Use of this reference enables all defect removal activities to rely on a single set of defect removal requirements, eliminating redundancy and reducing complexity. ii) IWA-4611.1(b) now includes a reference to the NDE requirements applicable to each of the various repair methods authorized by IWA-4600. This reference is needed because each repair method includes its own unique NDE requirements, and these requirements are different from those used for welding and brazing activities that are not within the scope of IWA-4600. i) IWA-4611.1(c) now includes a reference to the thermal metal removal requirements of IWA-4413. This reference is needed because the requirements for thermal metal removal apply to all IWA-4600 processes, and because thermal metal removal requirements have been consolidated into IWA-4461, which is referenced by IWA-4413. 	TS (Note 1)

ISI RELIEF REQUEST NUMBER: No. 7		
Certificate of Reconciliation		
IWA-4611 (cont'd)	<p>IWA-4611.2(a) was changed as follows:</p> <p>i) In the first line, the word "grinding" is replaced with "processing". This change is necessary to acknowledge that final grinding is not always required for defect removal.</p> <p>ii) In the sixth line, "IWA-3000" is replaced with "IWB-3500, IWC-3500, or IWD-3000". This change adds a direct reference to the NDE acceptance criteria tables of IWB and IWC (Note: Since IWD tables are 'in course of preparation', the IWD-3000 reference invokes permission to use IWB requirements). By referencing these tables, IWA-4611.2(a) clarifies that the indication may be considered 'reduced to an acceptable level' only when the respective table's acceptance criteria has been met.</p> <p>A new sentence states, "For supports and containment vessels, the provisions of IWA-4422.1(b) may be used." This sentence is added because ASME Section III Subsections NE and NF do not contain surface examination acceptance criteria for base materials, therefore, no criteria exist for these exams. IWA-4422.1(b) provides an evaluation alternative for these applications.</p>	TS (Note 1)
IWA-4620	Title was revised to "Temperbead Welding of Similar Materials"	TN
IWA-4624	<p>A) IWA-4624.1(a) was added to invoke IWA-4611.2(a), which mandates surface examination prior to welding for all temperbead repairs. This paragraph is added to assure that Section XI, IWA-3000 acceptance criteria is used for NDE of existing metal.</p> <p>B) IWA-4624.2 invokes Construction Code or Section III NDE acceptance criteria on in-processing welding and on the final weld. This assures that all newly installed weld metal complies with Construction Code requirements during installation and at the time of weld completion.</p>	TS (Note 1)
IWA-4630	Title was revised to "Temperbead Welding of Dissimilar Materials"	TN
IWA-4634	This was revised similar to that discussed in IWA-4624 above.	TS (Note 1)
IWA-4644	This was revised similar to that discussed in IWA-4624 above.	TS (Note 1)

ISI RELIEF REQUEST NUMBER: No. 7		
Certificate of Reconciliation		
IWA-4654	This was revised similar to that discussed in IWA-4624 above.	TS (Note 1)
IWA-4666	This was revised to impose Construction Code NDE requirements on completed underwater welds. This paragraph also provides an alternative to these NDE requirements when the underwater environment renders normal NDE practical.	TS (Note 1)
IWA-4711.4	This was revised to clarify the final visual examination was to be a VT-1 examination.	TS (Note 1)
IWA-4712	This was revised to make its wording consistent with IWA-4711. This change states that use of these requirements is mandatory for Class 1 applications, but use of these requirements in Class 2 and Class 3 applications is also acceptable.	TN
IWA-4721.1	This was revised to make its wording consistent with IWA-4711. This change states that use of these requirements is mandatory for Class 1 applications, but use of these requirements in Class 2 and Class 3 applications is also acceptable.	TN
IWA-4131.1(a)	The change deleted the word "welded" located in before the reference to plugs.	TS (Note 2)
IWA-4713	This revision adds new requirements for qualification of Class 1 mechanical tube plugs. These requirements represent a compilation of the standards and methods that have been used for twenty years to design, qualify, and install steam generator tube plugs. They have proven to provide safe installation and service for mechanical steam generator tube plugs. These requirements include development and qualification of the plug design and of a Plugging Procedure Specification (PPS), and performance qualification for individuals who install the tube plugs	TS (Note 2)

ISI RELIEF REQUEST NUMBER: No. 7		
Certificate of Reconciliation		
IWA-4132	This revision deletes the requirement for pressure testing and VT-2 visual examination of relief valves rotated from stock and installed by mechanical means. In the 1999 Addenda, the requirement to pressure test mechanical joints made in installation of pressure retaining items was deleted from IWA-4540, because Owner's operation and maintenance personnel post-installation inspections are adequate without an additional Code-required examination. With the deletion of pressure tests for mechanical connections, a similar exemption is warranted for installation of relief valves by mechanical means. The revision also clarifies that no other IWA-4000 requirements apply to rotation of snubber and relief valves, except those of IWA-4132, and clarifies that use of an ANII is not required. This revision incorporates the provisions of Case N-508-2, "Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing, Section XI, Division 1."	TS (Note 3)

NOTE 1. It is important to apply the correct acceptance criteria to each repair/replacement activity completed. As reflected in the Final Rule, the NRC recognizes the difference between the NDE of the Construction Codes and ASME Section XI. The other changes were made to clarify the rules as they apply to the mechanical removal process and of a non-technical nature with reordering of paragraphs or moving of requirements to different paragraphs. The MNGP Repair/Replacement Program incorporates these requirements.

NOTE 2. NMC has determined that it is important to have all special processes qualified and/or demonstrated to verify the application. Because of the elimination of the word "welded," the alternative requirements provided in IWA-4131.1 are no longer applicable to any tube plugging (mechanical or welded). The MNGP Repair/Replacement Program incorporates these provisions.

NOTE 3. Since the code no longer requires a VT-2 Examination on installation of mechanical joints, the NMC has determined that the installation of relief valves rotated from MNGP stock and installed by mechanical means would not require a VT-2 examination.

NRC Limitation / NMC Commitments:

The NRC staff requires implementation of paragraph IWA-4540(c) of the 1998 edition in lieu of that of the 2001 edition when implementing the 2001 edition of ASME Code, Section XI, Article IWX-4000 for repair and replacement activities.

The NRC is planning revisions to the Final rule which may have an effect on this Relief Request. NMC has committed to implement the limitations and modifications to the 1998 edition through 2000 addenda of the ASME Code, Section XI, as stated in 10 CFR 50.55a(b)(2) when implementing the 2001 edition. NMC has further committed to implement any limitations and modifications to the 2001 edition of the ASME Code for its repair and replacement program when the NRC incorporates, by reference, this edition into the regulations.

References:

1. NRC Letter to Nuclear Management Company, "Fourth 10-Year Interval Inservice Inspection Program Plan Relief Request No.7" (TAC No. MB6897), October 3, 2003
2. NRC Letter to Nuclear Management Company, "Issuance of Corrected Page Fourth 10-Year Interval Inservice Inspection Program Plan Relief Request No.7" (TAC No. MB6897), December 31, 2003

Status:

Approved on October 3, 2003 for use during the 4th Interval, (See References 1 and 2 above)

Monticello Unit 1 – ISI Relief Request No. 8 (Rev. 0)

**One-time Relief, Class 1 Pressure Test
at less than nominal operating pressure.**

COMPONENT IDENTIFICATION

Code Class: 1
References: IWA-4540(c)
IWA-5211(a)
Examination Category: Not Applicable
Item Number: Not Applicable
Description: System Leakage Pressure Test & accompanying
VT-2 Examination at nominal operating pressure
following Repair-Replacement activities involving
Mechanical Joints.
Components: Main Steam Safety Relief Valve Assemblies

CODE REQUIREMENTS

The 1995 Edition of American Society of Mechanical Engineers (ASME) Section XI with the 1996 Addenda, paragraph IWA-5120(a) states: "Items subjected to repair/replacement activities shall be pressure tested when required by IWA-4500."

Paragraph IWA-4540(c) states:
"Mechanical joints made in installation of pressure retaining items shall be pressure tested in accordance with IWA-5211(a)."

Paragraph IWA-5211(a) states:
"A system leakage test conducted during operation at nominal operating pressure, or when pressurized to nominal operating pressure and temperature."

Paragraph IWB-5210(b) states:
"The system pressure tests and visual examinations shall be conducted in accordance with IWA-5000 and this Article. The contained fluid in the system shall serve as the pressurizing medium."

BASIS FOR RELIEF

Nuclear Management Company, LLC (NMC) Monticello Nuclear Generating Plant (MNGP) recently completed a refueling outage on May 26, 2003. During the refueling outage, MNGP completed the system leakage test required by American Society of Mechanical Engineers (ASME) Section XI, Table IWB-2500-1, Category B-P, Item 15.10 and 10 CFR Part 50 Appendix G, Section IV.A.2.d. Following restart of the unit, the "B" and "G" main steam safety relief valve assemblies (SRVs) have indicated leakage, as determined by higher than normal temperatures in their respective discharge tailpipes.

MNGP has decided to conduct a planned unit shutdown and enter a maintenance outage to replace the affected SRV assemblies. The SRV assemblies are connected to the main steam piping with a bolted, mechanical joint. Replacing them for maintenance is considered a Repair-Replacement activity under the rules of ASME Section XI, 1995 Edition with the 1996 Addenda which is the current code of record for the 4th 10-Year ISI Interval. Following repair-replacement, a system leakage test is required by IWA-4540(c). The system leakage test at the nominal pressure associated with the reactor at 100% power would be approximately 1000 psig.

MNGP has identified three methods for performing the system leakage test on the mechanical joints associated with the repair-replacement activity that meet the requirements identified above. Several conditions associated with such testing represent an imposition on personnel safety, personnel radiation exposure, and challenges to the normal mode and manner of equipment operation.

Method No. 1 would perform the pressure test and VT-2 exam during normal startup procedures. During normal startup with normal power ascension, nominal operating pressure of 1000 psig is reached at a reactor power level of approximately 75%. If access to containment were permitted at this power level, personnel would be exposed to excessive radiation levels, including significant exposure to neutron radiation fields, which is contrary to current station ALARA practices.

Establishing the 1000 psig test condition at a more moderate power level (e.g. during plant startup at approximately 7% reactor power) and in the manner needed to address radiation concerns would require altering the normal operational mode of the steam pressure control system.

During the performance of plant startup procedures, the electric and mechanical pressure regulator (EPR and MPR) set points are established within their normal operational ranges (approximately 918 psig). Their primary function is to regulate

the main steam system pressures as sensed near the inlet of the high-pressure turbine. Reactor pressure control at the nominal 1000 psig is achieved at higher reactor power levels as a function of the pressure control system and the induced differential pressure across the main steam isolation valves and main steam piping.

While it is technically feasible to manipulate these controls to establish the nominal system pressure of 1000 psig at lower power levels, doing so will affect core reactivity and could challenge plant safety systems, such as the reactor protection system (RPS). MNGP has not previously operated the EPR and MPR in this manner. Changing the setpoints outside of the normal range of operation for the purpose of performing this test at nominal operating pressure poses several operational challenges. The lack of experience and predictability of setting pressure regulators outside the normal range of operation could adversely impact personnel and reactor safety.

Method No. 2 implements the use of the reactor pressure boundary leakage test which meets the requirements of Table IWB-2500-1, Category B-P, Item 15.10: the reactor pressure vessel (RPV) is filled with coolant and the steam lines are flooded to provide a water-solid condition. Use of this method would result in multiple operational challenges.

During a maintenance outage, pressurization for the test would be provided by decay heat and the reactor recirculation pumps. To support the pressurization evolution, the normal decay heat removal system, residual heat removal (RHR) shutdown cooling, would be required to be removed from service and isolated from the vessel to be pressurized. This system is not designed to withstand pressures greater than 185 psig. Thus, the remaining system available for decay heat removal is the reactor water cleanup system (RWCU).

Application of ANSI /ANS-1994 decay heat code results in a significant level of decay heat load. The ratio of decay heat input versus the heat removal capacity provided by RWCU is approximately 4:1. Therefore, the decay heat generated by the reactor core will surpass the capacity of RWCU. The heat up rate of the vessel water will cause the temperatures to surpass 212° F prior to the initiation of the inspections.

Method No. 2 would present several operational challenges. The pressure increase would be obtained by balancing the flow into the vessel, which is provided by the control rod drive (CRD) system, with the flow out of the vessel provided by the RWCU system via the dump flow control valve and flow controller. This is the method used during refueling outages to complete the RPV system leakage test. A failure of a non-safety related component, such as the dump valve or flow controller, would cause the interruption of dump flow and

would cause the RPV pressure to increase. The RPV pressure would increase until operator action would require the operating CRD pump to be tripped.

Due to the amount of decay heat being generated and the RWCU systems heat removal capacity, it is questionable whether the RPV would depressurize and may in fact continue to pressurize until further operator action would be required to depressurize the RPV. Operator actions may include one or more of the following: reestablishing RWCU dump flow; if the failure mechanism was no longer present, opening the main steam line drain valves, SRVs, or head vent line. Any of the last 3 of these actions would probably cause a rapid depressurization transient on the RPV.

Extensive valve manipulations, system lineups, and procedural controls are required in order to heat up and pressurize the primary system to establish the necessary test pressure, during plant outage conditions, without the withdrawal of control rods. This test is expected to take approximately 1 day of outage time, and the additional valve lineups and system reconfigurations necessary to support this test impose an additional challenge to the affected systems. A normal plant startup then occurs, after completion and subsequent recover from the test procedure.

Method No. 3 would maintain the RPV at its normal level and use decay heat to produce sufficient steam pressure to conduct the test at nominal operating temperature.

At the projected time of shutdown for the maintenance outage, MNGP will have a runtime of approximately three weeks since startup from the Cycle 21 refueling outage. The maintenance of the SRV assemblies is projected to be completed within approximately 50 hours after plant shutdown. While the decay heat load is too high for the water-solid method discussed above, there is not sufficient decay heat available to perform the test within a reasonable time period to support completion of the maintenance outage. It would require a minimum of 25 hours to reach the pressure of 1000 psig needed to perform the test required by the Code based upon decay heat projections.

Each of the methods discussed above presents a hardship or unusual difficulty to NMC.

PROPOSED ALTERNATIVE PROVISIONS

Pursuant to 10CFR50.55a(a)(3)(ii), compliance with the required system leakage test under IWA-4540(c) would result in a hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The NMC proposes to perform a VT-2 examination on the mechanical joints of the SRV assemblies during the normal operational start-up sequence at a minimum of 900 psig following a 10 minute hold time (for uninsulated components) in lieu of the nominal operating pressure associated with 100% reactor power of approximately 1000 psig. In addition, if there is an unplanned shutdown with a drywell entry before the next refueling outage, another inspection of these bolted connections will be performed to look for any evidence of leakage.

Application of this alternative test maintains reasonable levels of personnel safety and reduces the opportunity for the introduction of undesirable operational challenges.

While NMC does not expect that leakage will occur, any leakage at the bolted connection to be related to the differential pressure across the connection. A 10% reduction in test pressure is not expected to result in the arrest of a leak that would occur at nominal operating pressure.

In the event that leakage would occur at the mechanical joints at higher pressures associated with 100% reactor power, leakage from these mechanical connections would be detected by the drywell monitoring systems, which include drywell pressure monitoring, the containment atmosphere monitoring system (CAM), and the drywell floor drain sumps. Leakage monitoring is required by Monticello Technical Specifications.

This alternative method for a system leakage test is particularly applicable for the MNGP maintenance outage, which is of limited scope, and where the only components on the primary system that are being replaced are the main steam "B" and "G" safety relief valve assemblies attached via mechanical connections.

The NRC has authorized use of a similar alternative system leakage test method for the Cooper Nuclear Station in 1998 which permitted them to perform a system leakage test at a minimum of 900 psig following replacement of their SRV topworks, a mechanical joint, during a mid-cycle maintenance outage. The approval letter for the Cooper relief request was dated February 26, 1998.

CONCLUSION:

In summary, the proposed NMC alternative is to perform the system leakage test and VT-2 examination at 900 psig minimum after a 10 minute hold time in lieu of the pressure testing requirements of the 1995 Edition of ASME Section XI with the 1996 Addenda for mechanical joints following repair-replacement activities. In addition, if there is an unplanned shutdown with a drywell entry before the next refueling outage, another inspection of these bolted connections will be performed to look for any evidence of leakage.

Considering the hardship and unusual difficulty in performing the available methods for satisfying the code requirements and the ability to detect leakage in primary containment should it occur, this alternative will provide an acceptable verification of the leak integrity of the mechanical joint without putting the plant in a non-conservative operational condition and without unnecessary radiation exposure and safety challenges to personnel.

PERIOD FOR WHICH RELIEF IS REQUESTED

NMC requests NRC authorization to perform the proposed alternative test on a one-time basis for the system leakage tests following repair/replacement activities on the mechanical joints of SRVs "B" and "G" during the planned maintenance outage.

STATUS

Approved on June 13, 2003 for use during the 4th Interval, NRC Letter, "Monticello Nuclear Generating Plant – One-Time Inservice Inspection Program Plan Relief Request No. 8 For Leak Testing The "B" And "G" Main Steam Safety Relief Valves" (TAC No. MB9538)

**Monticello Unit 1 - ISI Relief Request No. 9 (Rev. 0)
(Fleet Relief Request)**

**Proposed Alternative
In Accordance With 10 CFR 50.55a(a)(3)(i)**

Appendix VIII - Supplement 10

SYSTEM/COMPONENT(S) FOR WHICH RELIEF IS REQUESTED:

Pressure Retaining Piping Welds subject to examination using procedures, personnel, and equipment qualified to ASME Section XI, Appendix VIII, Supplement 10 criteria.

CODE REQUIREMENTS:

The following statements or paragraphs are from ASME Section XI, Appendix VIII, Supplement 10 and identify the specific requirements that are included in this request for relief.

Item 1 - Paragraph 1.1(b) states in part - Pipe diameters within a range of 0.9 to 1.5 times a nominal diameter shall be considered equivalent.

Item 2 - Paragraph 1.1(d) states - All flaws in the specimen set shall be cracks.

Item 3 - Paragraph 1.1(d)(1) states - At least 50% of the cracks shall be in austenitic material. At least 50% of the cracks in austenitic material shall be contained wholly in weld or buttering material. At least 10% of the cracks shall be in ferritic material. The remainder of the cracks may be in either austenitic or ferritic material.

Item 4 - Paragraph 1.2(b) states in part - The number of unflawed grading units shall be at least twice the number of flawed grading units.

Item 5 - Paragraph 1.2(c)(1) and 1.3(c) state in part - At least 1/3 of the flaws, rounded to the next higher whole number, shall have depths between 10% and 30% of the nominal pipe wall thickness. Paragraph 1.4(b) distribution table requires 20% of the flaws to have depths between 10% and 30%.

Item 6 - Paragraph 2.0 first sentence states - The specimen inside surface and identification shall be concealed from the candidate.

Item 7 - Paragraph 2.2(b) states in part - The regions containing a flaw to be sized shall be identified to the candidate.

Item 8 - Paragraph 2.2(c) states in part - For a separate length sizing test, the regions of each specimen containing a flaw to be sized shall be identified to the candidate.

Item 9 - Paragraph 2.3(a) states - For the depth sizing test, 80% of the flaws shall be sized at a specific location on the surface of the specimen identified to the candidate.

Item 10 - Paragraph 2.3(b) states - For the remaining flaws, the regions of each specimen containing a flaw to be sized shall be identified to the candidate. The candidate shall determine the maximum depth of the flaw in each region.

Item 11 - Table VIII-S2-1 provides the false call criteria when the number of unflawed grading units is at least twice the number of flawed grading units.

RELIEF REQUESTED

Relief is requested to use the following alternative requirements for implementation of Appendix VIII, Supplement 10 requirements. They will be implemented through the Performance Demonstration Initiative (PDI) Program.

A copy of the proposed revision to Supplement 10 is attached. It identifies the proposed alternatives and allows them to be viewed in context. It also identifies additional clarifications and enhancements for information. It has been submitted to the ASME Code for consideration and as of September 2002 had been approved by the NDE Subcommittee.

BASIS FOR RELIEF

Item 1 – The proposed alternative to Paragraph 1.1(b) states:

“The specimen set shall include the minimum and maximum pipe diameters and thicknesses for which the examination procedure is applicable. Pipe diameters within 1/2 in. (13 mm) of the nominal diameter shall be considered equivalent.

Pipe diameters larger than 24 in. (610 mm) shall be considered to be flat. When a range of thicknesses is to be examined, a thickness tolerance of $\pm 25\%$ is acceptable.”

Technical Basis - The change in the minimum pipe diameter tolerance from 0.9 times the diameter to within 1/2 inch of the nominal diameter provides tolerances more in line with industry practice. Though the alternative is less stringent for small pipe diameters they typically have a thinner wall thickness than larger diameter piping. A thinner wall thickness results in shorter sound path distances that reduce the detrimental effects of the curvature. This change maintains consistency between Supplement 10 and the recent revision to Supplement 2.

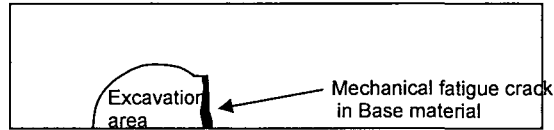
Item 2 - The proposed alternative to Paragraph 1.1(d) states:

“At least 60% of the flaws shall be cracks, the remainder shall be alternative flaws. Specimens with IGSCC shall be used when available. Alternative flaws, shall meet the following requirements:

- (1) Alternative flaws, if used, shall provide crack-like reflective characteristics and shall only be used when implantation of cracks would produce spurious reflectors that are uncharacteristic of service-induced flaws.
- (2) Alternative flaw mechanisms shall have a tip width no more than 0.002 in. (.05 mm).

Note, to avoid confusion the proposed alternative modifies instances of the term “cracks” or “cracking” to the term “flaws” because of the use of alternative flaw mechanisms.”

Technical Basis - As illustrated below, implanting a crack requires excavation of the base material on at least one side of the flaw. While this may be satisfactory for ferritic materials, it does not produce a useable axial flaw in austenitic materials because the sound beam, which normally passes only through base material, must now travel through weld material on at least one side, producing an unrealistic flaw response. In addition, it is important to preserve the dendritic structure present in field welds that would otherwise be destroyed by the implantation process. To resolve these issues, the proposed alternative allows the use of up to 40% fabricated flaws as an alternative flaw mechanism under controlled conditions. The fabricated flaws are isostatically compressed which produces ultrasonic reflective characteristics similar to tight cracks.



Item 3 - The proposed alternative to Paragraph 1.1(d)(1) states:

“At least 80% of the flaws shall be contained wholly in weld or buttering material. At least one and no more than 10% of the flaws shall be in ferritic base material. At least one and no more than 10% of the flaws shall be in austenitic base material.”

Technical Basis - Under the current Code, as few as 25% of the flaws are contained in austenitic weld or buttering material. Recent experience has indicated that flaws contained within the weld are the likely scenarios. The metallurgical structure of austenitic weld material is ultrasonically more challenging than either ferritic or austenitic base material. The proposed alternative is therefore more challenging than the current Code.

Item 4 – The proposed alternative to Paragraph 1.2(b) states:

“Personnel performance demonstration detection test sets shall be selected from Table VIII-S10-1. The number of unflawed grading units shall be at least 1-1/2 times the number of flawed grading units.”

Technical Basis - Table VIII-S10-1 provides a statistically based ratio between the number of unflawed grading units and the number of flawed grading units. The proposed alternative reduces the ratio to 1.5 times. This reduces the number of test samples to a more reasonable number from the human factors perspective. However, the statistical basis used for screening personnel and procedures is still maintained at the same level with competent personnel being successful and less skilled personnel being unsuccessful. The acceptance criteria for the statistical basis are in Table VIII-S10-1.

Item 5 - The proposed alternative to the flaw distribution requirements of Paragraph 1.2(c)(1) (detection) and 1.3(c) (length) is to use the Paragraph 1.4(b) (depth) distribution table (see below) for all qualifications.

<u>Flaw Depth</u>	<u>Minimum</u>
(% Wall Thickness)	Number of Flaws
10-30%	20%
31-60%	20%
61-100%	20%

Technical Basis - The proposed alternative uses the depth sizing distribution for both detection and depth sizing because it provides for a better distribution of flaw sizes within the test set. This distribution allows candidates to perform detection, length, and depth sizing demonstrations simultaneously utilizing the same test set. The requirement that at least 75% of the flaws shall be in the range of 10 to 60% of wall thickness provides an overall distribution tolerance yet the distribution uncertainty decreases the possibilities for testmanship that would be inherent to a uniform distribution. It must be noted that it is possible to achieve the same distribution utilizing the present requirements, but it is preferable to make the criteria consistent.

Item 6 – The proposed alternative to Paragraph 2.0 first sentence states:

“For qualifications from the outside surface, the specimen inside surface and identification shall be concealed from the candidate. When qualifications are performed from the inside surface, the flaw location and specimen identification shall be obscured to maintain a “blind test”.”

Technical Basis - The current Code requires that the inside surface be concealed from the candidate. This makes qualifications conducted from the inside of the pipe (e.g., PWR nozzle to safe end welds) impractical. The proposed alternative differentiates between ID and OD scanning surfaces, requires that they be conducted separately, and requires that flaws be concealed from the candidate. This is consistent with the recent revision to Supplement 2.

Items 7 and 8 – The proposed alternatives to Paragraph 2.2(b) and 2.2(c) state:

“... containing a flaw to be sized may be identified to the candidate.”

Technical Basis - The current Code requires that the regions of each specimen containing a flaw to be length sized shall be identified to the candidate. The candidate shall determine the length of the flaw in each region (Note, that length and depth sizing use the term “regions” while detection uses the term “grading units” - the two terms define different concepts and are not intended to be equal or interchangeable). To ensure security of the samples, the proposed alternative modifies the first “shall” to a “may” to allow the test administrator the option of not identifying specifically where a flaw is located. This is consistent with the recent revision to Supplement 2.

Items 9 and 10 – The proposed alternative to Paragraph 2.3(a) and 2.3(b) state:

“... regions of each specimen containing a flaw to be sized may be identified to the candidate.”

Technical Basis - The current Code requires that a large number of flaws be sized at a specific location. The proposed alternative changes the “shall” to a “may” which modifies this from a specific area to a more generalized region to ensure security of samples. This is consistent with the recent revision to Supplement 2. It also incorporates terminology from length sizing for additional clarity.

Item 11 - The proposed alternative modifies the acceptance criteria of Table VIII-S2-1 as follows:

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**TABLE VIII-S2-1
 PERFORMANCE DEMONSTRATION DETECTION TEST
 ACCEPTANCE CRITERIA**

Detection Test Acceptance Criteria		False Call Test Acceptance Criteria	
No. of Flawed Grading Units	Minimum Detection Criteria	No. of Unflawed Grading Units	Maximum Number of False Calls
5	5	10	0
6	6	12	1
7	6	14	1
8	7	16	2
9	7	18	2
10	8	20	3
11	9	22	3
12	9	24	3
13	10	26	4
14	10	28	5
15	11	30	5
16	12	32	6
17	12	34	6
18	13	36	7
19	13	38	7
20	14	40	8

Technical Basis - The proposed alternative is identified as new Table VIII-S10-1 above. It was modified to reflect the reduced number of unflawed grading units and allowable false calls. As a part of ongoing Code activities, Pacific Northwest National Laboratory (PNNL) has reviewed the statistical significance of these revisions and offered the revised Table S10-1.

ALTERNATIVE EXAMINATION

In lieu of the requirements of ASME Section XI, Appendix VIII, Supplement 10, the proposed alternative shall be used. The proposed alternative is described in the enclosure.

JUSTIFICATION FOR GRANTING RELIEF

Pursuant to 10 CFR 50.55a(a)(3)(i), approval is requested to use the proposed alternatives described above in lieu of the ASME Section XI, Appendix VIII, Supplement 10 requirements. Compliance with the proposed alternatives will provide an acceptable level of quality and safety for examination of the affected welds.

IMPLEMENTATION SCHEDULE

This technical alternative will be used at Duane Arnold Energy Center; Monticello Nuclear Generating Plant; Point Beach Nuclear Plant, Units 1 And 2; Prairie Island Nuclear Generating Plant, Units 1 And 2; Kewaunee Nuclear Power Plant; and Palisades Nuclear Plant during each plant's present Ten-Year Interval of the Inservice Inspection Program. (See Attachment 1 for Interval dates.)

STATUS

Approved on February 26, 2004 for during the 4th Interval, NRC Letter, "Duane Arnold Energy Center, Monticello Nuclear Generating Plant, Prairie Island Nuclear Generating Plant, Units 1 and 2, Kewaunee Nuclear Power Plant, Point Beach Nuclear Plant, Units 1 and 2, Palisades Nuclear Plant Re: Request for Alternatives to American Society of Mechanical Engineers (ASME) Section XI, Appendix VIII, Supplement 10 (TAC NOS. MC0814, MC0816, MC0820, MC0821, MC0815, MC0818, MC0819 AND MC0817)"

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
	1.0 SCOPE	
	<p>Supplement 10 is applicable to dissimilar metal piping welds examined from either the inside or outside surface.</p> <p>Supplement 10 is not applicable to piping welds containing supplemental corrosion resistant clad (CRC) applied to mitigate Intergranular Stress Corrosion Cracking (IGSCC).</p>	<p>A scope statement provides added clarity regarding the applicable range of each individual Supplement. The exclusion of CRC provides consistency between Supplement 10 and the recent revision to Supplement 2 (Reference BC 00-755). Note, an additional change identifying CRC as “in course of preparation” is being processed separately.</p>
1.0 SPECIMEN REQUIREMENTS	2.0 SPECIMEN REQUIREMENTS	Renumbered
<p>Qualification test specimens shall meet the requirements listed herein, unless a set of specimens is designed to accommodate specific limitations stated in the scope of the examination procedure (e.g., pipe size, weld joint configuration, access limitations). The same specimens may be used to demonstrate both detection and sizing qualification.</p>	<p>Qualification test specimens shall meet the requirements listed herein, unless a set of specimens is designed to accommodate specific limitations stated in the scope of the examination procedure (e.g., pipe size, weld joint configuration, access limitations). The same specimens may be used to demonstrate both detection and sizing qualification.</p>	No Change
<p>1.1 General. The specimen set shall conform to the following requirements.</p>	<p>2.1 General. The specimen set shall conform to the following requirements.</p>	Renumbered

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
	(a) The minimum number of flaws in a specimen set shall be ten.	New, changed minimum number of flaws to 10 so sample set size for detection is consistent with length and depth sizing.
(a) Specimens shall have sufficient volume to minimize spurious reflections that may interfere with the interpretation process.	(b) Specimens shall have sufficient volume to minimize spurious reflections that may interfere with the interpretation process.	Renumbered
(b) The specimen set shall include the minimum and maximum pipe diameters and thicknesses for which the examination procedure is applicable. Pipe diameters within a range of 0.9 to 1.5 times a nominal diameter shall be considered equivalent. Pipe diameters larger than 24 in. shall be considered to be flat. When a range of thicknesses is to be examined, a thickness tolerance of $\pm 25\%$ is acceptable.	(c) The specimen set shall include the minimum and maximum pipe diameters and thicknesses for which the examination procedure is applicable. Pipe diameters within 1/2 in. (13 mm) of the nominal diameter shall be considered equivalent. Pipe diameters larger than 24 in. (610 mm) shall be considered to be flat. When a range of thicknesses is to be examined, a thickness tolerance of $\pm 25\%$ is acceptable.	Renumbered, metricated, the change in pipe diameter tolerance provides consistency between Supplement 10 and the recent revision to Supplement 2 (Reference BC 00-755)
(c) The specimen set shall include examples of the following fabrication condition:	(d) The specimen set shall include examples of the following fabrication conditions:	Renumbered, changed "condition" to "conditions"

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
(1) geometric conditions that normally require discrimination from flaws (e.g., counterbore or weld root conditions, cladding, weld buttering, remnants of previous welds, adjacent welds in close proximity);	(1) geometric and material conditions that normally require discrimination from flaws (e.g., counterbore or weld root conditions, cladding, weld buttering, remnants of previous welds, adjacent welds in close proximity, weld repair areas);	Clarification, some of the items listed relate to material conditions rather than geometric conditions. Weld repair areas were added as a result of recent field experiences.
(2) typical limited scanning surface conditions (e.g., diametrical shrink, single-side access due to nozzle and safe end external tapers).	(2) typical limited scanning surface conditions shall be included as follows: (a) for outside surface examination, weld crowns , diametrical shrink, single-side access due to nozzle and safe end external tapers (b) for inside surface examination, internal tapers, exposed weld roots, and cladding conditions for inside surface examinations. (e) Qualification requirements shall be satisfied separately for outside surface and inside surface examinations.	Differentiates between ID and OD scanning surface limitations. Requires that ID and OD qualifications be conducted independently (Note, new paragraph 2.0 (identical to old paragraph 1.0) provides for alternatives when “a set of specimens is designed to accommodate specific limitations stated in the scope of the examination procedure.”).
(d) All flaws in the specimen set shall be cracks.		Deleted this requirement, because new paragraph 2.3 below provides for the use of “alternative flaws” in lieu of cracks.

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
<p>(1) At least 50% of the cracks shall be in austenitic material. At least 50% of the cracks in austenitic material shall be contained wholly in weld or buttering material. At least 10% of the cracks shall be in ferritic material. The remainder of the cracks may be in either austenitic or ferritic material.</p>	<p>2.2 Flaw Location. At least 80% of the flaws shall be contained wholly in weld or buttering material. At least one and no more than 10% of the flaws shall be in ferritic base material. At least one and no more than 10% of the flaws shall be in austenitic base material.</p>	<p>Renumbered and re-titled. Flaw location percentages redistributed because field experience indicates that flaws contained in weld or buttering material are probable and represent the more stringent ultrasonic detection scenario.</p>
<p>(2) At least 50% of the cracks in austenitic base material shall be either IGSCC or thermal fatigue cracks. At least 50% of the cracks in ferritic material shall be mechanically or thermally induced fatigue cracks.</p>	<p>2.3 Flaw Type. (a) At least 60% of the flaws shall be cracks, and the remainder shall be alternative flaws. Specimens with IGSCC shall be used when available. Alternative flaws shall meet the following requirements: (1) Alternative flaws, if used, shall provide crack-like reflective characteristics and shall only be used when implantation of cracks would produce spurious reflectors that are uncharacteristic of service-induced flaws. (2) Alternative flaws shall have a tip width no more than 0.002 in. (.05 mm).</p>	<p>Renumbered and re-titled. Alternative flaws are required for placing axial flaws in the HAZ of the weld and other areas where implantation of a crack produces metallurgical conditions that result in an unrealistic ultrasonic response. This is consistent with the recent revision to Supplement 2 (Reference BC 00-755).</p> <p>The 40% limit on alternative flaws is needed to support the requirement for up to 70% axial flaws. Metricated</p>

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS										
Current Requirement	Proposed Change	Reasoning								
(3) At least 50% of the cracks shall be coincident with areas described in (c) above.	(b) At least 50% of the flaws shall be coincident with areas described in 2.1(d) above.	Renumbered. Due to inclusion of “alternative flaws”, use of “cracks” is no longer appropriate.								
	<p>2.4 Flaw Depth. All flaw depths shall be greater than 10% of the nominal pipe wall thickness. Flaw depths shall exceed the nominal clad thickness when placed in cladding. Flaws in the sample set shall be distributed as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Flaw Depth</u> <u>(% Wall Thickness)</u></th> <th style="text-align: center;"><u>Minimum</u> <u>Number of</u> <u>Flaws</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10-30%</td> <td style="text-align: center;">20%</td> </tr> <tr> <td style="text-align: center;">31-60%</td> <td style="text-align: center;">20%</td> </tr> <tr> <td style="text-align: center;">61-100%</td> <td style="text-align: center;">20%</td> </tr> </tbody> </table> <p>At least 75% of the flaws shall be in the range of 10 to 60% of wall thickness.</p>	<u>Flaw Depth</u> <u>(% Wall Thickness)</u>	<u>Minimum</u> <u>Number of</u> <u>Flaws</u>	10-30%	20%	31-60%	20%	61-100%	20%	Moved from old paragraph 1.3(c) and 1.4 and re-titled. Consistency between detection and sizing specimen set requirements (e.g., 20% vs. 1/3 flaw depth increments, e.g., original paragraph 1.3(c))
<u>Flaw Depth</u> <u>(% Wall Thickness)</u>	<u>Minimum</u> <u>Number of</u> <u>Flaws</u>									
10-30%	20%									
31-60%	20%									
61-100%	20%									
1.2 Detection Specimens. The specimen set shall include detection specimens that meet the following requirements.		Renumbered and re-titled and moved to paragraph 3.1(a). No other changes								

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
(a) Specimens shall be divided into grading units. Each grading unit shall include at least 3 in. of weld length. If a grading unit is designed to be unflawed, at least 1 in. of unflawed material shall exist on either side of the grading unit. The segment of weld length used in one grading unit shall not be used in another grading unit. Grading units need not be uniformly spaced around the pipe specimen.		Renumbered to paragraph 3.1(a)(1). No other changes.
(b) Detection sets shall be selected from Table VIII-S2-1. The number of unflawed grading units shall be at least twice the number of flawed grading units.		Moved to new paragraph 3.1(a)(2).
(c) Flawed grading units shall meet the following criteria for flaw depth, orientation, and type.		Flaw depth requirements moved to new paragraph 2.4, flaw orientation requirements moved to new paragraph 2.5, flaw type requirements moved to new paragraph 2.3, "Flaw Type".

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
(1) All flaw depths shall be greater than 10% of the nominal pipe wall thickness. At least 1/3 of the flaws, rounded to the next higher whole number, shall have depths between 10% and 30% of the nominal pipe wall thickness. However, flaw depths shall exceed the nominal clad thickness when placed in cladding. At least 1/3 of the flaws, rounded to the next whole number, shall have depths greater than 30% of the nominal pipe wall thickness.		Deleted, for consistency in sample sets the depth distribution is the same for detection and sizing.
(2) At least 30% and no more than 70% of the flaws, rounded to the next higher whole number, shall be oriented axially. The remainder of the flaws shall be oriented circumferentially.	2.5 Flaw Orientation. (a) For other than sizing specimens at least 30% and no more than 70% of the flaws, rounded to the next higher whole number, shall be oriented axially. The remainder of the flaws shall be oriented circumferentially.	Note, this distribution is applicable for detection and depth sizing. Paragraph 2.5(b)(1) requires that all length- sizing flaws be oriented circumferentially.
1.3 Length Sizing Specimens. The specimen set shall include length sizing specimens that meet the following requirements.		Renumbered and re-titled and moved to new paragraph 3.2
(a) All length sizing flaws shall be oriented circumferentially.		Moved, included in new paragraph 3.2(a)

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
(b) The minimum number of flaws shall be ten.		Moved, included in new paragraph 2.1 above
(c) All flaw depths shall be greater than 10% of the nominal pipe wall thickness. At least 1/3 of the flaws, rounded to the next higher whole number, shall have depths between 10% and 30% of the nominal pipe wall thickness. However, flaw depth shall exceed the nominal clad thickness when placed in cladding. At least 1/3 of the flaws, rounded to the next whole number, shall have depths greater than 30% of the nominal pipe wall thickness.		Moved, included in new paragraph 2.4 above after revision for consistency with detection distribution
1.4 Depth Sizing Specimens. The specimen set shall include depth sizing specimens that meet the following requirements.		Moved, included in new paragraphs 2.1, 2.3, 2.4
(a) The minimum number of flaws shall be ten.		Moved, included in new paragraph 2.1

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS										
Current Requirement	Proposed Change	Reasoning								
(b) Flaws in the sample set shall not be wholly contained within cladding and shall be distributed as follows:		Moved, potential conflict with old paragraph 1.2(c)(1); "However, flaw depths shall exceed the nominal clad thickness when placed in cladding." Revised for clarity and included in new paragraph 2.4								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><u>Flaw Depth</u> (% Wall Thickness)</th> <th style="text-align: center;"><u>Minimum</u> Number of Flaws</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10-30%</td> <td style="text-align: center;">20%</td> </tr> <tr> <td style="text-align: center;">31-60%</td> <td style="text-align: center;">20%</td> </tr> <tr> <td style="text-align: center;">61-100%</td> <td style="text-align: center;">20%</td> </tr> </tbody> </table> <p>The remaining flaws shall be in any of the above categories.</p>	<u>Flaw Depth</u> (% Wall Thickness)	<u>Minimum</u> Number of Flaws	10-30%	20%	31-60%	20%	61-100%	20%		Moved, included in paragraph 2.4 for consistent applicability to detection and sizing samples.
<u>Flaw Depth</u> (% Wall Thickness)	<u>Minimum</u> Number of Flaws									
10-30%	20%									
31-60%	20%									
61-100%	20%									
	(b) Sizing Specimen sets shall meet the following requirements.	Added for clarity								
	(1) Length-sizing flaws shall be oriented circumferentially.	Moved from old paragraph 1.3(a)								
	(2) Depth sizing flaws shall be oriented as in 2.5(a).	Included for clarity. Previously addressed by omission (i.e., length, but not depth had a specific exclusionary statement)								

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
2.0 CONDUCT OF PERFORMANCE DEMONSTRATION	3.0 CONDUCT OF PERFORMANCE DEMONSTRATION	Renumbered
The specimen inside surface and identification shall be concealed from the candidate. All examinations shall be completed prior to grading the results and presenting the results to the candidate. Divulgence of particular specimen results or candidate viewing of unmasked specimens after the performance demonstration is prohibited.	Personnel and procedure performance demonstration tests shall be conducted according to the following requirements. (a) For qualifications from the outside surface, the specimen inside surface and identification shall be concealed from the candidate. When qualifications are performed from the inside surface, the flaw location and specimen identification shall be obscured to maintain a “blind test”. All examinations shall be completed prior to grading the results and presenting the results to the candidate. Divulgence of particular specimen results or candidate viewing of unmasked specimens after the performance demonstration is prohibited.	Differentiate between qualifications conducted from the outside and inside surface.
2.1 Detection Test. Flawed and unflawed grading units shall be randomly mixed	3.1 Detection Qualification.	Renumbered, moved text to paragraph 3.1(a)(3)
	(a) The specimen set shall include detection specimens that meet the following requirements.	Renumbered, moved from old paragraph 1.2.

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
	<p>(1) Specimens shall be divided into grading units.</p> <p>(a) Each grading unit shall include at least 3 in. (76 mm) of weld length.</p> <p>(b) The end of each flaw shall be separated from an unflawed grading unit by at least 1 in. (25 mm) of unflawed material. A flaw may be less than 3 in. (76 mm) in length.</p> <p>(c) The segment of weld length used in one grading unit shall not be used in another grading unit.</p> <p>(d) Grading units need not be uniformly spaced around the pipe specimen.</p>	<p>Renumbered, moved from old paragraph 1.2(a). Metricated. No other changes.</p>
	<p>(2) Personnel performance demonstration detection test sets shall be selected from Table VIII-S10-1. The number of unflawed grading units shall be at least 1-1/2 times the number of flawed grading units.</p>	<p>Moved from old paragraph 1.2(b). Table revised to reflect a change in the minimum sample set to 10 and the application of equivalent statistical false call parameters to the reduction in unflawed grading units.</p> <p>Human factors due to large sample size.</p>
	<p>(3) Flawed and unflawed grading units shall be randomly mixed.</p>	<p>Moved from old paragraph 2.1</p>

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
	(b) Examination equipment and personnel are qualified for detection when personnel demonstrations satisfy the acceptance criteria of Table VIII S10-1 for both detection and false calls.	Moved from old paragraph 3.1. Modified to reflect the 100% detection acceptance criteria of procedures versus personnel and equipment contained in new paragraph 4.0 and the use of 1.5X rather than 2X unflawed grading units contained in new paragraph 3.1(a)(2). Note, the modified table maintains the screening criteria of the original Table VIII-S2-1.
2.2 Length Sizing Test	3.2 Length Sizing Test	Renumbered
(a) The length sizing test may be conducted separately or in conjunction with the detection test.	(a) Each reported circumferential flaw in the detection test shall be length-sized.	Provides consistency between Supplement 10 and the recent revision to Supplement 2 (Reference BC 00-755).

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
<u>(b) When the length sizing test is conducted in conjunction with the detection test, and less than ten circumferential flaws are detected, additional specimens shall be provided to the candidate such that at least ten flaws are sized. The regions containing a flaw to be sized shall be identified to the candidate. The candidate shall determine the length of the flaw in each region.</u>	(b) When the length-sizing test is conducted in conjunction with the detection test, and less than ten circumferential flaws are detected, additional specimens shall be provided to the candidate such that at least ten flaws are sized. The regions containing a flaw to be sized may be identified to the candidate. The candidate shall determine the length of the flaw in each region.	Change made to ensure security of samples, consistent with the recent revision to Supplement 2 (Reference BC 00-755). Note, length and depth sizing use the term “regions” while detection uses the term “grading units”. The two terms define different concepts and are not intended to be equal or interchangeable.
<u>(c) For a separate length sizing test, the regions of each specimen containing a flaw to be sized shall be identified to the candidate. The candidate shall determine the length of the flaw in each region.</u>	(c) For a separate length-sizing test, the regions of each specimen containing a flaw to be sized may be identified to the candidate. The candidate shall determine the length of the flaw in each region.	Change made to ensure security of samples, consistent with the recent revision to Supplement 2 (Reference BC 00-755).
	(d) Examination procedures, equipment, and personnel are qualified for length-sizing when the RMS error of the flaw length measurements, as compared to the true flaw lengths, do not exceed 0.75 in. (19 mm).	Moved from old paragraph 3.2(a) includes inclusion of “when” as an editorial change. Metricated.
2.3 Depth Sizing Test	3.3 Depth Sizing Test	Renumbered

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
(a) For the depth sizing test, 80% of the flaws shall be sized at a specific location on the surface of the specimen identified to the candidate.	(a) The depth-sizing test may be conducted separately or in conjunction with the detection test. For a separate depth-sizing test, the regions of each specimen containing a flaw to be sized may be identified to the candidate. The candidate shall determine the maximum depth of the flaw in each region.	Change made to ensure security of samples, consistent with the recent revision to Supplement 2 (Reference BC 00-755).
(b) For the remaining flaws, the regions of each specimen containing a flaw to be sized shall be identified to the candidate. The candidate shall determine the maximum depth of the flaw in each region.	(b) When the depth-sizing test is conducted in conjunction with the detection test, and less than ten flaws are detected, additional specimens shall be provided to the candidate such that at least ten flaws are sized. The regions of each specimen containing a flaw to be sized may be identified to the candidate. The candidate shall determine the maximum depth of the flaw in each region.	Change made to be consistent with the recent revision to Supplement 2 (Reference BC 00-755). Changes made to ensure security of samples, consistent with the recent revision to Supplement 2 (Reference BC 00-755).
	(c) Examination procedures, equipment, and personnel are qualified for depth sizing when the RMS error of the flaw depth measurements, as compared to the true flaw depths, do not exceed 0.125 in. (3 mm).	Moved from old paragraph 3.2(b). Metricated.

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
3.0 ACCEPTANCE CRITERIA		Delete as a separate category. Moved to new paragraph detection (3.1) and sizing 3.2 and 3.3
3.1 Detection Acceptance Criteria. Examination procedures, equipment, and personnel are qualified for detection when the results of the performance demonstration satisfy the acceptance criteria of Table VIII-S2-1 for both detection and false calls.		Moved to new paragraph 3.1(b), reference changed to Table S10 from S2 because of the change in the minimum number of flaws and the reduction in unflawed grading units from 2X to 1.5X.
3.2 Sizing Acceptance Criteria		Deleted as a separate category. Moved to new paragraph on length 3.2 and depth 3.3
(a) Examination procedures, equipment, and personnel are qualified for length sizing the RMS error of the flaw length measurements, as compared to the true flaw lengths, is less than or equal to 0.75 inch.		Moved to new paragraph 3.2(d), included word “when” as an editorial change.

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
(b) Examination procedures, equipment, and personnel are qualified for depth sizing when the RMS error of the flaw depth measurements, as compared to the true flaw depths, is less than or equal to 0.125 in.		Moved to new paragraph 3.3(c)
	4.0 PROCEDURE QUALIFICATION	New

SUPPLEMENT 10 – QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS		
Current Requirement	Proposed Change	Reasoning
	<p>Procedure qualifications shall include the following additional requirements.</p> <p>(a) The specimen set shall include the equivalent of at least three personnel performance demonstration test sets. Successful personnel performance demonstrations may be combined to satisfy these requirements.</p> <p>(b) Detectability of all flaws in the procedure qualification test set that are within the scope of the procedure shall be demonstrated. Length and depth sizing shall meet the requirements of paragraph 3.1, 3.2, and 3.3.</p> <p>(c) At least one successful personnel demonstration shall be performed.</p> <p>(d) To qualify new values of essential variables, at least one personnel qualification set is required. The acceptance criteria of 4.0(b) shall be met.</p>	<p>New. Based on experience gained in conducting qualifications, the equivalent of 3 personnel sets (i.e., a minimum of 30 flaws) is required to provide enough flaws to adequately test the capabilities of the procedure. Combining successful demonstrations allows a variety of examiners to be used to qualify the procedure. Detectability of each flaw within the scope of the procedure is required to ensure an acceptable personnel pass rate. The last sentence is equivalent to the previous requirements and is satisfactory for expanding the essential variables of a previously qualified procedure</p>

**Monticello Unit 1 - ISI Relief Request No. 10 (Rev. 0)
(Fleet Relief Request)**

**Duane Arnold Energy Center
Monticello Nuclear Generating Plant
Alternative to Use Code Case N-613-1**

1. ASME Code Component(s) Affected

Code Class: Class 1
Reference: ASME, Section XI
Examination Category: B-D
Item Number: B3.90
Description: Reactor Vessel Full Penetration Nozzle-to-Vessel
Welds
Component Numbers: See Tables 1 and 2

2. Applicable Code Edition and Addenda

ASME Section XI 1989 Edition, no Addenda is applicable to the Duane Arnold Energy Center (DAEC) Inservice Inspection (ISI) Program for the Third Ten-Year Interval.

ASME Section XI 1995 Edition, 1996 Addenda is applicable to the Monticello Nuclear Generating Plant (MNGP) ISI Program for the Fourth Ten-Year Interval.

3. Applicable Code Requirement

Nuclear Management Company (NMC), LLC is currently required to perform inservice examinations of selected reactor vessel nozzle-to-vessel welds in accordance with the requirements of 10 CFR 50.55a, and the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components. Table IWB-2500-1, Examination Category B-D, Item No. B3.90 specifies the examination requirements. Figure IWB-2500-7(b) requires that a minimum volume of material, a distance of $t_s/2$ (one half the reactor vessel shell thickness) adjacent to the weld, be examined.

4. Reason for Request

The required examination volume for the reactor vessel pressure retaining nozzle-to-vessel welds extends far beyond the weld into the base metal, and is unnecessarily large. This proposed alternative would re-define the examination volume boundary to 1/2 inch of base metal on each side of the widest portion of the weld, removing from examination the base metal that was extensively examined during prior inspections, and is not in the high residual stress region associated with the weld.

5. Proposed Alternative and Basis for Use

Pursuant to 10 CFR 50.55a(a)(3)(i), authorization is requested to use the proposed alternative described in ASME Boiler and Pressure Vessel Code Section XI Code Case N-613-1 in lieu of the ASME Section XI Table IWB-2500-1 Examination Category B3.90 requirements. Compliance with the proposed alternative will provide an acceptable level of quality and safety for examination of the affected welds.

In lieu of the $t_s/2$ volume requirement of ASME Section XI, Figure IWB-2500-7(b), NMC proposes to reduce the examination volume next to the widest part of the weld to one-half (1/2) inch from the weld. This refined examination volume is defined in detail within Code Case N-613-1. NMC will use Code Case N-613-1 for the Reactor Pressure Vessel (RPV) nozzles as shown in Figure 2 of the Code Case.

The required examination volume for the RPV nozzle-to-vessel welds extends far beyond the weld into the base metal, and is unnecessarily large. This proposed alternative would re-define the examination volume boundary to 1/2 inch of base metal on each side of the widest portion of the weld. This reduction in base metal inspection will not affect the flaw detection capabilities in the weld and heat affected zone. The proposed reduction in exam volume is base metal only.

The creation of flaws during plant service in the volume excluded from the proposed reduced examination is unlikely because of the low stress in the base metal away from the weld. The stresses caused by welding are concentrated at or near the weld. Cracks, should they initiate, occur in the high-stressed areas of the weld. These high stress areas are contained in the volume that is defined by Code Case N-613-1 and are thus subject to examination. During previous examinations, no indications exceeding the allowable limits of the preservice or inservice criteria were found in the reactor vessel nozzle to shell examination volumes including the base metal areas proposed for exclusion from examination in this request. The prior thorough examination of the base metal and the examination of the high-stressed areas of the weld provide an acceptable level of quality and safety.

6. Duration of Proposed Alternative

This technical alternative will be used at DAEC during the current Third Ten-Year Interval of the Inservice Inspection Program scheduled to end on November 1, 2005, and at MNGP during the current Fourth Ten-Year Interval of the Inservice Inspection Program scheduled to end on May 31, 2012.

The use of Code Case N-613-1 is requested until the NRC publishes the Code Case in a future revision of Regulatory Guide 1.147.

STATUS

Approved on October 6, 2004 for during the 4th Interval, NRC Letter, "Duane Arnold Energy Center and Monticello Nuclear Generating Plant Re: Request for Authorization to Utilize Code Case N-613-1 (TAC Nos. MC2374 and MC2375)"

Table 1
DAEC Nozzle-to-Vessel Welds Within Scope of Request
(NOT INCLUDED IN MNGP ISI PLAN)

Table 2 MNGP Nozzle-to-Vessel Welds Within Scope of Request				
Summary Number	Weld Identification and Description	Nozzle Configuration	Full Volume Exam Previously Completed to Extent Achievable	Nondestructive Examination (NDE) Method
102652	N-1A NV, RPV N-1A Nozzle, Recirc Suction	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102654	N-1B NV, RPV N-1B Nozzle, Recirc Suction	Code Case N-613-1, Figure 2	Examined in 2001 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102656	N-2A NV, RPV N-2A Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 2001 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102658	N-2B NV, RPV N-2B Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 2001 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102660	N-2C NV, RPV N-2C Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60

Table 2
MNGP Nozzle-to-Vessel Welds Within Scope of Request

Summary Number	Weld Identification and Description	Nozzle Configuration	Full Volume Exam Previously Completed to Extent Achievable	Nondestructive Examination (NDE) Method
102662	N-2D NV, RPV N-2D Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102664	N-2E NV, RPV N-2E Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102666	N-2F NV, RPV N-2F Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102668	N-2G NV, RPV N-2G Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 1998 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102670	N-2H NV, RPV N-2H Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 1998 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102672	N-2J NV, RPV N-2J Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102674	N-2K NV, RPV N-2K Nozzle, Recirc Riser Inlet	Code Case N-613-1, Figure 2	Examined in 2001 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102676	N-3A NV, RPV N-3A, Main Steam Outlet	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102678	N-3B NV, RPV N-3B, Main Steam Outlet	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102680	N-3C NV, RPV N-3C, Main Steam Outlet	Code Case N-613-1, Figure 2	Examined in 1998 from RPV shell side only due to nozzle configuration; One indication was recorded with the 60° scan which required evaluation per	UT-0 UT-45 UT-60

Table 2
MNGP Nozzle-to-Vessel Welds Within Scope of Request

Summary Number	Weld Identification and Description	Nozzle Configuration	Full Volume Exam Previously Completed to Extent Achievable	Nondestructive Examination (NDE) Method
			ASME Code Section XI, 1986 Edition with no Addenda and was found to be acceptable. Indication is contained within the reduced volume of Code Case N-613-1, Figure 2.	
102682	N-3D NV, RPV N-3D, Main Steam Outlet	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102684	N-4A NV, RPV N-4A, Feedwater Inlet	Code Case N-613-1, Figure 2	Examined in 1996 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102686	N-4B NV, RPV N-4B, Feedwater Inlet	Code Case N-613-1, Figure 2	Examined in 1998 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102688	N-4C NV, RPV N-4C, Feedwater Inlet	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102690	N-4D NV, RPV N-4D, Feedwater Inlet	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102692	N-5A NV, RPV N-5A, Core Spray Inlet	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102694	N-5B NV, RPV N-5B, Core Spray Inlet	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102375	N-6A NV, RPV N-6A, Spare (formerly Reactor Vessel Head Spray)	Code Case N-613-1, Figure 2	Examined in 1996 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60

Table 2				
MNGP Nozzle-to-Vessel Welds Within Scope of Request				
Summary Number	Weld Identification and Description	Nozzle Configuration	Full Volume Exam Previously Completed to Extent Achievable	Nondestructive Examination (NDE) Method
102377	N-6B NV, RPV N-6B, Spare	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102379	N-7 NV, RPV N-7, Reactor Vessel Head Vent	Code Case N-613-1, Figure 2	Examined in 1998 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102696	N-8A NV, RPV N-8A, Jet Pump Instrumentation	Code Case N-613-1, Figure 2	Examined in 1994 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102698	N-8B NV, RPV N-8B, Jet Pump Instrumentation	Code Case N-613-1, Figure 2	Examined in 2001 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102700	N-9 NV, RPV N-9, Spare (formerly CRD Return)	Code Case N-613-1, Figure 2	Examined in 1996 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60
102623	N-10 NV, RPV N-10, Standby Liquid Control Injection	Code Case N-613-1, Figure 2	Examined in 2000 from RPV shell side only due to nozzle configuration; no recordable indications.	UT-0 UT-45 UT-60

**Monticello Unit 1 - ISI Relief Request No. 11 (Rev. 0)
(Fleet Relief Request)**

**Request For Authorization To Utilize Code Case N-661
10 CFR 50.55a Request GR-04-01
Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(i)**

1. ASME Code Component(s) Affected

ASME Section XI, Class 2 and 3 Carbon Steel Piping for Raw Water Service

2. Applicable ASME Section XI Code Edition and Addenda

The applicable Codes for Repair/Replacement activities are as follows:

Monticello (2001 Edition)

Prairie Island (1998 Edition with the 2000 Addenda)

Point Beach (1998 Edition with the 2000 Addenda)

Kewaunee (1998 Edition with the 2000 Addenda)

Palisades (1989 Edition)

Duane Arnold (1992 Edition with the 1992 Addenda)

3. Applicable Code Requirement

ASME Section XI 1989 Edition

IWA-4120(a) requires that repairs be performed in accordance with the Owner's Design Specification and the original Construction Code of the component or system.

IWA-4310 requires that defects be removed or reduced in size in accordance with IWA-4000.

ASME Section XI 1992 Edition with the 1992 Addenda

IWA-4170(b) requires that repairs and installation of replacement items shall be performed in accordance with the Owner's Design Specification and the original Construction Code of the component or system.

IWA-4310 requires that defects be removed or reduced in size in accordance with IWA-4000.

ASME Section XI 1998 Edition with the 2000 Addenda

IWA-4221(a) requires that items used for repair/replacement activities shall meet the applicable Owner's Requirements.

IWA-4221(b) requires that an item to be used for repair/replacement activities shall meet the Construction Code specified in accordance with (1), (2) or (3) below.

- (1) When replacing an existing item, the new item shall meet the Construction Code to which the original item was constructed.
- (2) When adding a new item to an existing system, the Owner shall specify a Construction Code that is no earlier than the earliest Construction Code used for construction of any originally installed item in that system.
- (3) When adding a new system, the Owner shall specify a Construction Code that is no earlier than the earliest Construction Code used for other systems that perform a similar function.

IWA-4422.1(a) states that a defect is considered removed when it has been reduced to an acceptable size.

ASME Section XI 2001 Edition

IWA-4221(a) requires that items used for repair/replacement activities shall meet the applicable Owner's Requirements.

IWA-4221(b) requires that an item to be used for repair/replacement activities shall meet the Construction Code specified in accordance with (1), (2) or (3) below.

- (1) When replacing an existing item, the new item shall meet the Construction Code to which the original item was constructed.
- (2) When adding a new item to an existing system, the Owner shall specify a Construction Code that is no earlier than the earliest Construction Code used for construction of any originally installed item in that system.
- (3) When adding a new system, the Owner shall specify a Construction Code that is no earlier than the earliest Construction Code used for other systems that perform a similar function.

IWA-4422.1(a) states that a defect is considered removed when it has been reduced to an acceptable size.

4. Reason for Request:

Relief is requested from replacement or weld repair of wall thinning conditions in Class 2 and 3 carbon steel raw water piping systems to the design specification and the original construction code. Such thinning may be the result of various degradation mechanisms such as erosion, corrosion, cavitation and pitting. The use of Code Case N-661 will provide adequate time so that pipe replacement can be planned to reduce impact on system availability including Maintenance Rule applicability and availability of replacement materials.

5. Proposed Alternative and Basis for Use

NMC proposes to implement the requirements of ASME Code Case N-661 as an alternative under 10 CFR 50.55a(a)(3)(i) for Class 2 and 3 raw water piping systems resulting from degradation mechanisms such as erosion, corrosion, cavitation, or pitting as an alternative to the requirements of the ASME Section XI code as referenced above. These types of defects are typically identified by small leaks in the piping system or by pre-emptive non-code required examinations performed to monitor the degradation mechanisms. The alternative repair technique described in Code Case N-661 involves the application of additional weld metal on the exterior of the piping system that restores the wall thickness requirement. This repair technique is utilized whenever engineering evaluation determines that such a repair is suitable for the particular defect or degradation being resolved. Provisions for use of this Code Case will be addressed in the Repair/Replacement Program for each site.

Provisions for implementation of this Code Case will be addressed on a plant specific basis in each site's Repair/Replacement Program. The provisions will require that adjacent areas be examined to verify that the repair will encompass the entire flawed area and that no other unacceptable degraded locations exist within a representative area. This will be dependent on the degradation mechanism present. An evaluation of the degradation will be performed to determine the re-examination schedule to be conducted over the life of the repair. The repair will be considered to have a maximum service life of two fuel cycles unless the re-examinations conducted during each of the two fuel cycles establish the expected life of the repair.

Additionally, the following restrictions will be placed on the use of Code Case N-661 to ensure that the use of the Code Case will provide an acceptable alternative pursuant to 10 CFR 50.55a(a)(3)(i):

- (a) if the root cause of the degradation has not been determined, the repair is only acceptable for one cycle,
- (b) weld overlay repair of an area can only be performed once in the same location, and
- (c) when through-wall repairs are made by welding on surfaces that are wet or exposed to water, the weld overlay repair is only acceptable until the next refueling outage.

The basis for use of the repair technique described in Code Case N-661 is that the ASME Code subcommittee for Section XI determined that this repair technique provides an acceptable alternative to the requirements of IWA-4000 and provides an acceptable level of quality and safety. Therefore, the proposed alternative is justified per 10 CFR 50.55a(a)(3)(i)

Code Case N-661 was approved by the ASME Section XI Code Committee on July 23, 2002; however, it has not been incorporated into NRC Regulatory Guide 1.147 "Inservice Inspection Code Case Acceptability, ASME Section XI Division 1." Therefore NMC requests use of the alternative repair technique described via this relief request. A copy of the ASME Section XI Code Case N-661 is provided as Enclosure 2 for reference.

6. Duration of Proposed Alternative

NMC requests authorization of Code Case N-661 to be used for each plant's 10-year ISI interval (see table below) or until the NRC publishes Code Case N-661 in a future revision of Regulatory Guide 1.147. Upon incorporation into the Regulatory Guide, NMC will review and follow the conditions specified. All other ASME Code, Section XI requirements for which relief was not specifically requested and authorized by the NRC staff will remain applicable including third party review by the Authorized Nuclear Inservice Inspector.

Plant	ISI Interval	Interval Dates
Monticello Nuclear Generating Plant 50-263	Fourth	05/01/03 – 05/31/12
Prairie Island Nuclear Generating Plant, Units 1 and 2, 50-282 & 50-306	Fourth	12/21/04 – 12/20/14
Point Beach Nuclear Plant, Units 1 and 2, 50-266 and 50-301	Fourth	07/01/02 – 06/30/12
Kewaunee Nuclear Power Plant 50-305	Fourth	06/16/04 – 06/16/14
Palisades Nuclear Plant 50-255	Third	05/12/95 – 12/12/06
Duane Arnold Energy Center 50-331	Third	11/01/96 – 11/01/05

7. Precedents

NMC has determined that the following previous Authorizations to use Code Case N-661 are directly applicable to this Relief Request:

- (1) Letter from NRC to Southern Nuclear Company, "Edwin I. Hatch Nuclear Plant, Units 1 and 2, Joseph M. Farley Nuclear Power Plant, Units 1 and 2, and Vogtle Electric Generating Plant, Units 1 and 2 (TAC Nos. MB8959, MB8960, MB8961, MB8962, MB8963, and MB8964)," dated November 21, 2003, ADAMS Accession No. ML033280037.
- (2) Letter from NRC to TXU Energy, "Comanche Peak Steam Electric Station, Units 1 and 2 – RE: Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Section XI, Concerning Relief Requests C-2 and C-7 (TAC Nos. MB7947 and MB7948)," dated February 18, 2004, ADAMS Accession No. ML040490624.

STATUS

Submitted on July 28, 2004, not yet approved for use, NMC Letter to NRC, "10 CFR 50.55a Request GR-04-01; Request For Authorization To Utilize Code Case N-661(L-HU-04-027)"

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**10 CFR 50.55a REQUEST NO. 12
 PROPOSED ALTERNATIVE FOR VISUAL EXAMINATION ILLUMINATION LEVELS
 IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)**

1. ASME Code Component(s) Affected

Component and System	ASME Code Class
Control Rod Drive (CRD) System Hydraulic Control Unit (HCU) 26-27	2
Residual Heat Removal-Service Water (RHRSW) System Pump 12	3
RHRSW System Pump 14	3
Emergency Diesel Generator-Emergency Service Water (EDG-ESW) System Pump 11	3
EDG-ESW System Pump 12	3

2. Applicable ASME Section XI Code Edition and Addenda

The applicable Code for Repair/Replacement and related activities is the 2001 Edition, No Addenda as authorized in the Monticello Nuclear Generating Plant (MNGP) Fourth Ten-Year Interval Inservice Inspection (ISI) Program 10CFR50.55a Request No. 7, October 3, 2003 (TAC No. MB6897).

3. Applicable Code Requirement

The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, IWA-2210, "Visual Examinations," provides the following requirements (meeting either of which would be sufficient to demonstrate adequate illumination) for conducting visual examinations.

IWA-2210(e) specifies the following requirements for illumination levels:

"It is not necessary to measure illumination levels on each examination surface when the same portable light source or similar installed lighting equipment is demonstrated to provide the illumination specified in Table IWA-2500-1 at the maximum examination distance."

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IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)

IWA-2210(f) states:

“The adequacy of the illumination levels from battery powered portable lights shall be checked before and after each examination or series of examinations, not to exceed 4 hr between checks. In lieu of using a light meter, these checks may be made by verifying that the illumination is adequate (i.e., no discernable degradation in the visual examination resolution of the procedure demonstration test chart characters).”

4. Reason for Request:

NMC identified five VT-2 examinations, performed in conjunction with post-repair/replacement pressure tests (during the first period of the current 10-year ISI interval), which were not performed in accordance with the illumination requirements of IWA-2210 and could not be re-performed.* The illumination levels were not verified as required. Authorization is requested to utilize an alternative method that was used to verify the illumination levels, as described in Section 5.

The five VT-2 examinations were performed using portable battery-powered lights (a standard practice to ensure adequate lighting). However, due to a procedural inadequacy, the illumination levels were not verified before and after each VT-2 examination as specified in IWA-2210(f), nor were the illumination levels demonstrated pursuant to IWA-2210(e). (This procedural inadequacy is tracked and is being corrected under the MNGP Corrective Action Program.) Consequently, without verifying the illumination levels of the portable battery-powered lights or ambient light conditions, only the knowledge and skill of the certified VT-2 examiner was available to attest that the lighting conditions were adequate for the five VT-2 examinations. Because it could not initially be verified that the lighting levels were acceptable, it was conservatively assumed that the requirements of IWA-2210 were not met for these five VT-2 examinations.

Listed below are the five pressure tests, which could not be re-performed,* where the VT-2 examination illumination levels could not initially be determined as acceptable:

* The replaced components were restored to operable status prior to the identification of this illumination concern with the VT-2 examinations. The pre-service pressure testing required by IWA-4540 (and associated VT-2 examinations) cannot be re-performed because the associated systems were restored to service.

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 IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)**

R/R Plan Number	Work Description	Examination Date
2003-22-0011	Replace accumulator on HCU 26-27	10/26/03
2003-22-0012	Replace EDG-ESW Pump 12 with rebuilt spare from stock.	12/4/03
2003-22-0014	Replace RHRSW Pump 14 with rebuilt spare from stock.	11/7/03
2003-22-0021	Replace RHRSW Pump 12 with rebuilt spare from stock.	11/21/03
2004-22-0062	Replace EDG-ESW Pump 11 with rebuilt spare from stock.	11/15/04

5. Proposed Alternative and Basis for Use

The proposed illumination alternative for the five VT-2 examinations is based upon the following three factors. First, the possession of the knowledge and skill by the certified VT-2 examiners, and their attestation that there was sufficient lighting for them to properly perform the examinations. Second, the use of battery-powered portable lights by the VT-2 examiners, which provided additional illumination (beyond ambient) during the examinations. Third, a walk-down of the areas where the VT-2 examinations were conducted was performed by the site Nondestructive Examination (NDE) Level III, to verify the ambient illumination level provided by the permanent plant lighting was adequate to meet the requirements of IWA-2210, as described below.

Upon discovery of the five post-repair/replacement pressure tests, for which the VT-2 examination illumination levels could not be initially be determined as acceptable, the site NDE Level III walked-down each location and performed illumination checks where the VT-2 examinations had been conducted. Illumination checks were performed using a light meter and/or a character card. The illumination checks were done to establish whether the existing permanently installed plant (ambient) lighting provided reasonable assurance of sufficient illumination at each location to comply with IWA-2210(e) illumination requirements during the performance of the VT-2 examinations.

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IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)**

The results of these illumination checks provided reasonable assurance that the ambient illumination levels at the components, using the existing permanently installed plant lighting, were sufficient to meet IWA-2210 requirements. Also, during performance of these illumination checks, the NDE Level III examiner did not identify any indications of leakage from the pressure-tested components.

Based on the following factors, NMC considers the proposed alternative to be acceptable:

- Walk-downs following the VT-2 examinations indicate that the ambient illumination provided by the permanent plant lighting was sufficient,
- The skill and knowledge of the certified VT-2 examiners attesting to a light level sufficient for them to perform their examinations, and
- The VT-2 examiners used battery-powered portable lights (which provided additional illumination above ambient) during the VT-2 examinations.

Therefore, NMC considers the proposed method, consisting of the three factors listed above, to be an acceptable alternative to the lighting verification required by IWA-2210 during the performance of the five VT-2 examinations. NMC believes that the proposed alternative provided an acceptable level of quality and safety.

NMC requests a one-time approval for the use of the alternative method previously described, that was applied for verifying the illumination levels for the five VT-2 examinations associated with the post-repair/replacement pressure tests identified in this 10 CFR 50.55a request.

6. Duration of Proposed Alternative

NMC requests a one-time approval of the alternative method that was applied for determining the illumination levels for the five VT-2 examinations (for the subject components specified in Section 1) for the first period of the current fourth ten-year ISI interval for the MNGP.

**10 CFR 50.55a REQUEST NO. 13
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

1. ASME Code Component(s) Affected

Components affected are American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), Section XI, Class 1, Reactor Vessel Nozzle-to-Vessel Shell welds specified below and in-detail in Table A:

Recirculation Suction	Nozzle N-1A	Weld - N-1A NV
Recirculation Inlet	Nozzle N-2D	Weld - N-2D NV
Recirculation Inlet	Nozzle N-2E	Weld - N-2E NV
Recirculation Inlet	Nozzle N-2J	Weld - N-2J NV
Main Steam Discharge	Nozzle N-3A	Weld - N-3A NV
Feedwater Inlet	Nozzle N-4C	Weld - N-4C NV
Core Spray Inlet	Nozzle N-5B	Weld - N-5B NV
Jet Pump Instrumentation	Nozzle N-8A	Weld - N-8A NV

2. Applicable ASME Section XI Code Edition and Addenda

The applicable ASME Section XI Code for the Monticello Nuclear Generating Plant (MNGP), Fourth Ten-Year Inservice Inspection (ISI) Interval is the 1995 Edition with the 1996 Addenda.

3. Applicable Code Requirement

ASME Class 1 Nozzle-to-Vessel Shell welds are subject to the examination requirements of Subsection IWB Table IWB-2500-1, as shown below, and are required to be examined once within the Fourth Ten-Year Interval:

Code Class: 1
References: IWB-2500, Table IWB-2500-1
Examination Category: B-D
Item Number: B3.90
Description: Nozzle-to-Vessel Shell Welds
Component Numbers: See Section 1 and Table A
System: Reactor Vessel
Examination Method: Volumetric – Ultrasonic Testing (UT)

In lieu of the examination volume depicted in Figure IWB-2500-7(b), the United States Nuclear Regulatory Commission (NRC) has authorized the NMC to use the alternative examination volume requirements of Code Case N-613-1 (Reference 1) for the Nozzle-to-Vessel Shell welds listed in this request.

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INSERVICE INSPECTION IMPRACTICALITY**

The MNGP Fourth Ten-Year Interval Inservice Inspection Plan also implements Code Case N-460 (Reference 2), which is endorsed by the NRC in Regulatory Guide 1.147 (Reference 3). Code Case N-460 states in part, "when the entire examination volume or area cannot be examined due to interference by another component or part geometry, a reduction in examination coverage on any Class 1 or Class 2 weld may be accepted provided the reduction in coverage for that weld is less than 10 percent."

NRC Information Notice (IN) 98-42 (Reference 4) termed a reduction in coverage of less than 10 percent to be "essentially 100 percent." IN 98-42 states in part, 'The NRC has adopted and further refined the definition of "essentially 100 percent" to mean "greater than 90 percent"...has been applied to all examinations of welds or other areas required by ASME Section XI.'

4. Impracticality of Compliance

Construction Permit CPPR-31 was obtained for the MNGP in 1967. The MNGP systems and components were designed and fabricated before the examination requirements of ASME Section XI were formalized and published. Because this plant was not specifically designed to meet the requirements of ASME Section XI, full compliance is not feasible or practical within the limits of the current plant design.

10 CFR 50.55a recognizes the limitations to in-service inspection of components in accordance with Section XI of the ASME Code, that are imposed due to early plants' design and construction, as follows:

10 CFR 50.55a(g)(1): For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued prior to January 1, 1971, components (including supports) must meet the requirements of paragraphs (g) (4) and (5) of this section to the extent practical.

10 CFR 50.55a(g)(4): Throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and pre-service examination requirements, set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code ... to the extent practical within the limitations of design, geometry and materials of construction of the components.

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY

10 CFR 50.55a(g)(5)(iii): If the licensee has determined that conformance with certain code requirements is impractical for its facility, the licensee shall notify the Commission and submit, as specified in § 50.4, information to support the determinations.

The inspection limitations on the subject components are primarily due to inherent nozzle design geometric contours with some additional, minor interference from nearby welded attachments (see Table A).

A description of the examination methodology used to provide the maximum obtainable coverage is provided in Section 6 of this request. This methodology is based on ASME Section XI, Appendix VIII qualification and was applied to the extent practical within the design constraints of the components. Enclosure 3 provides cross-sectional diagrams of the subject welds showing the geometric contour of the component design in relation to the welds and the coverage obtained within the examination volume requirements of Code Case N-613-1, Figure 2.

5. Burden Caused by Compliance

Compliance with the examination coverage requirements of ASME Section XI would require modification, redesign, or replacement of components where geometry is inherent to the component design.

6. Proposed Alternative and Basis for Use

Proposed Alternative

In accordance with 10 CFR 50.55a(g)(5)(iii), relief is requested for the components listed in Table A on the basis that the required examination coverage of "essentially 100 percent" is impractical due to physical obstructions and the limitations imposed by design, geometry and materials of construction.

NMC performed qualified examinations that achieved the maximum, practical amount of coverage obtainable within the limitations imposed by the design of the components. Additionally, as Class 1 examination Category B-P components, a VT-2 examination is performed on the subject components of the Reactor Coolant Pressure Boundary during system pressure tests each refueling outage. This was completed during the 2005 refueling outage and no evidence of leakage was identified for these components.

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

Therefore, pursuant to 10 CFR 50.55a(g)(5)(iii), NMC requests relief from the requirements of ASME Section XI Table IWB-2500-1, Category B-D, Item B3.90 and associated Code Cases, and proposes to utilize these completed exams as an acceptable alternative that provides reasonable assurance of continued structural integrity.

Basis For Use

The MNGP Nondestructive Examination (NDE) procedures incorporate improved inspection techniques qualified under Appendix VIII of the ASME Section XI Code by the Performance Demonstration Initiative (PDI) for examination of the subject nozzle-to-shell welds.

Coverage was obtained by following the scan parameters defined by the MNGP specific Electric Power Research Institute (EPRI) computer modeling report (Reference 5) for each nozzle configuration and angle, and as designated within MNGP NDE procedures.

The examinations were performed using a manual contact method from the nozzle outside blend and vessel shell surfaces as discussed in the EPRI modeling report and as stated in MNGP procedures. The shear wave mode of propagation was used for each of the transducer and wedge combinations required for the inner 15 percent of the required parallel scan volume. The refracted longitudinal wave mode of propagation was used for the remaining outer 85 percent of the volume for parallel scans, and all of the perpendicular scans.

The subject components received the required examination(s) to the extent practical within the limited access of the component design. For the examinations conducted, satisfactory results were achieved, and no evidence of unacceptable flaws were detected with the improved inspection techniques.

Due to the design of these welds it was not feasible to effectively perform a volumetric examination of 100 percent of the volume as described in IWB-2500-7(b). The nozzle-to-vessel welds are accessible from the vessel shell side of the weld, but examinations cannot be performed from the nozzle side of the weld because of the forging curvature. In addition, due to component configuration, certain nozzle-to-vessel weld examinations are further limited by the reactor pressure vessel design obstructions (such as appurtenances).

Additional coverage for the limited areas was not achievable or practical, based on the latest qualified ultrasonic technology, nor by other considered examinations methods, such as radiography. MNGP has concluded that if

**10 CFR 50.55a REQUEST NO. 13
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

significant degradation existed in the subject welds, it should have been identified by the examinations performed.

Additionally, as Class 1 examination category B-P components, VT-2 examinations were performed on the subject components in association with the Reactor Coolant Pressure Boundary system pressure test performed during the 2005 refueling outage, and no evidence of leakage was identified.

The materials for the subject components are A533 Cl I nozzle forgings welded to A508 Cl II vessel shell plate. A review of operating experience within the nuclear industry did not reveal any instances of cracking in this location and type of weldment.

The MNGP reactor vessel water chemistry is controlled in accordance with the 2004 revision to the BWR Water Chemistry Guidelines (Reference 6). Also a hydrogen water chemistry system is used to reduce the oxidizing environment in the reactor coolant. These additional measures provide added assurance against the initiation of cracking or corrosion from the inside surface of the reactor vessel for the subject components listed in this request. An inerted primary containment environment during operation provides assurance of corrosion protection on the outside surface of the reactor vessel.

Based on the above, with due consideration of the earlier plant design, the underlying objectives of the Code required volumetric examinations have been met. The examinations were completed to the extent practical and evidenced no unacceptable flaws present. VT-2 examinations performed on the subject components during system pressure testing each refueling outage (in accordance with examination Category B-P) provide continued assurance that the structural integrity of the subject components is maintained. Additionally, the MNGP Water Chemistry Program and inerted primary containment environment provide added measures of protection for the component materials.

7. Duration of Proposed Alternative

NMC requests the granting of this relief for the Fourth Ten-Year Inservice Inspection Interval of the Inservice Inspection Program for the MNGP that is scheduled to end on May 31, 2012.

8. Precedents

The NRC has granted relief for the MNGP for previous ten-year inservice inspection intervals, most recently the Third Ten-Year Inservice Inspection Interval (Reference 7). Also, the NRC has granted relief for the Quad Cities Nuclear Power Station, Units 1 and 2 (Reference 8), the Dresden Nuclear Power

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INSERVICE INSPECTION IMPRACTICALITY**

Station, Units 2 and 3 (Reference 9), and the Prairie Island Nuclear Generating Plant, Unit 2 (Reference 10).

REFERENCES

1. ASME Section XI Code Case N-613-1, "Ultrasonic Examination of Full Penetration Nozzles in Vessels, Examination Category B-D, Item No's. B3.10 and B3.90, Reactor Nozzle-To-Vessel Welds, Figures IWB-2500-7(a), (b), and (c)."
2. ASME Section XI Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds."
3. Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 13, January 2004.
4. NRC Information Notice 98-42, "Implementation of 10 CFR 50.55a(g) In-service Inspection Requirements."
5. EPRI Internal Report IR-2004-63, "Monticello Nozzle Inner Radius and Nozzle-to-Shell Weld Examinations."
6. BWRVIP-130, "BWR Water Chemistry Guidelines – 2004 Revision" (EPRI Topical Report TR-1008192).
7. NRC letter to NMC, "Monticello Nuclear Generating Plant Third 10-Year Interval Inservice Inspection Relief Request No. 16, Parts A, B and C (TAC No. MB5487)," dated May 19, 2003.
8. Letter from NRC to Commonwealth Edison Company, "Quad Cities, Units 1 and 2 - Relief Request CR-32 for Third 10-Year Inservice Inspection Interval," dated September 6, 2000.
9. Letter from NRC to Exelon Generation Company, LLC, "Dresden Nuclear Power Station, Units 2 and 3 - Relief Request CR-24 For Third 10-Year Inservice Inspection Interval," dated January 8, 2003.
10. NRC letter to NMC, "Prairie Island Nuclear Generating Plant, Unit 2 – Evaluation of Relief Request No. 16 for the Unit 2 3rd 10-year Interval Inservice Inspection Program (TAC No. MC1775)," dated October 18, 2004.

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INSERVICE INSPECTION IMPRACTICALITY**

**TABLE A - Category B-D, "Full Penetration Welds of Nozzles in Vessels," Item No. B3.90
Percent Coverage and Limitations for Nozzles N-1A, N-2D, N-2E, N-2J, N-3A, N-4C, N-5B, and N-8A**

Code Category and Item No.	System and Component Description	Component ID	Code Component and Examination Volume Required	Percent* Coverage Obtained	Limitations	Exam Report Number
B-D B3.90	Reactor Vessel, Recirculation Suction Nozzle N-1A	N-1A NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	83%	Limited due to nozzle configuration. Also, small reduction due to interference from welded thermocouple attachments.	2005UT041
B-D B3.90	Reactor Vessel, Recirculation Inlet Nozzle N-2D	N-2D NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	82%	Limited due to nozzle configuration. Also, small reduction due to interference from welded thermocouple attachment.	2005UT028
B-D B3.90	Reactor Vessel, Recirculation Inlet Nozzle N-2E	N-2E NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	78%	Limited due to nozzle configuration.	2005UT016
B-D B3.90	Reactor Vessel, Recirculation Inlet Nozzle N-2J	N-2J NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	78%	Limited due to nozzle configuration.	2005UT005
B-D B3.90	Reactor Vessel, Main Steam Discharge Nozzle N-3A	N-3A NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	83%	Limited due to nozzle configuration.	2005UT023
B-D B3.90	Reactor Vessel, Feedwater Inlet Nozzle N-4C	N-4C NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	79%	Limited due to nozzle configuration.	2005UT025

**10 CFR 50.55a REQUEST NO. 13
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

Code Category and Item No.	System and Component Description	Component ID	Code Component and Examination Volume Required	Percent* Coverage Obtained	Limitations	Exam Report Number
B-D B3.90	Reactor Vessel, Core Spray Inlet Nozzle N-5B	N-5B NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	81%	Limited due to nozzle configuration. Also, small reduction due to interference from welded thermocouple attachments.	2005UT018
B-D B3.90	Reactor Vessel, Jet Pump Instrumentation Nozzle N-8A	N-8A NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	83%	Limited due to nozzle configuration.	2005UT037

* Due to the nozzle design it was not feasible to effectively examine essentially 100 percent of the required examination volume as defined in Figure 2 of Code Case N-613-1. Percentages are conservatively rounded down to the nearest whole number. It should be noted that 100 percent of the inner 15 percent was examined in the parallel scans for all components listed above.

**10 CFR 50.55a REQUEST NO. 13
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

**EXAM LIMITATIONS IMPOSED BY COMPONENT
DESIGN AND CONSTRUCTION**

This enclosure contains a series of excerpts from the ISI Ultrasonic Testing (UT) reports applicable to the subject components.

These excerpts contain sketches depicting the component configuration with physical limitations imposed by the design, e.g., geometrical contour, weld position, interferences, and a cross sectional view depicting the UT coverage and limitations in relation to the required examination volume.

Also included is a sketch of a typical nozzle contour and the resulting affect that causes the UT transducer to lose coupling contact when it reaches the nozzle blend radius.

COMPONENT	REPORT	PAGE(S)
N-1A NV	2005UT041	Pages 1-3
N-2D NV	2005UT028	Pages 4-5
N-2E NV	2005UT016	Pages 6-7
N-2J NV	2005UT005	Pages 8-9
N-3A NV	2005UT023	Page 10
N-4C NV	2005UT025	Pages 11-12
N-5B NV	2005UT018	Pages 13-14
N-8A NV	2005UT037	Page 15
Typical Nozzle Contour Affecting Transducer Contact		Page 16

Coverage drawings excerpted from applicable reports

Component – N-1A NV Report # 2005UT041

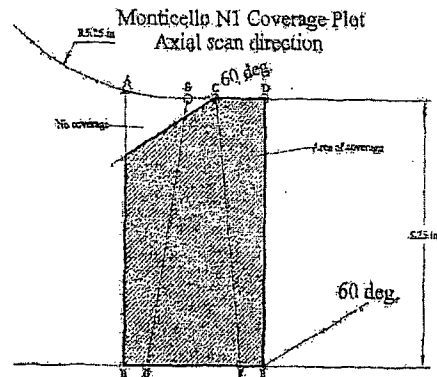
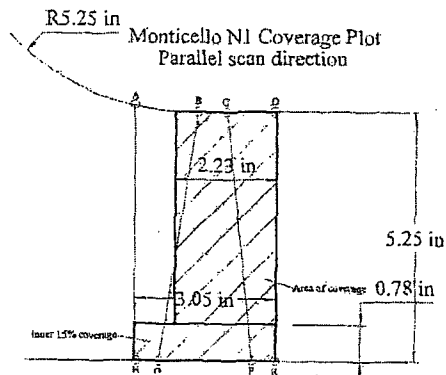


Supplemental Report

Report No.: 2005UT041

Summary No.: 102652

Comments: Parallel scan limitation due to radius area, no contact
Axial scan limitation due to transducer size and radius area, no contact.



Component – N-1A NV Report # 2005UT041



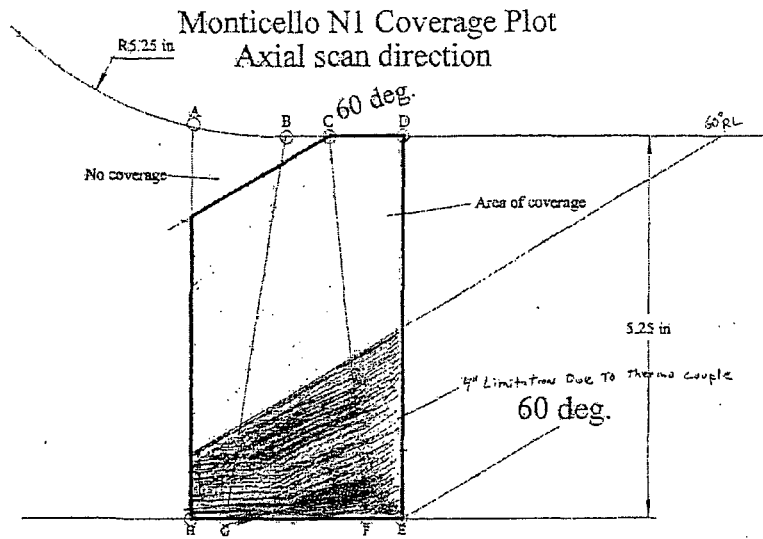
Limitation Record

Summary No.: 102652

Report No.: 2005UT041

Description of Limitation:

4" Limitation due to thermo-couple.



Component – N-1A NV Report # 2005UT041

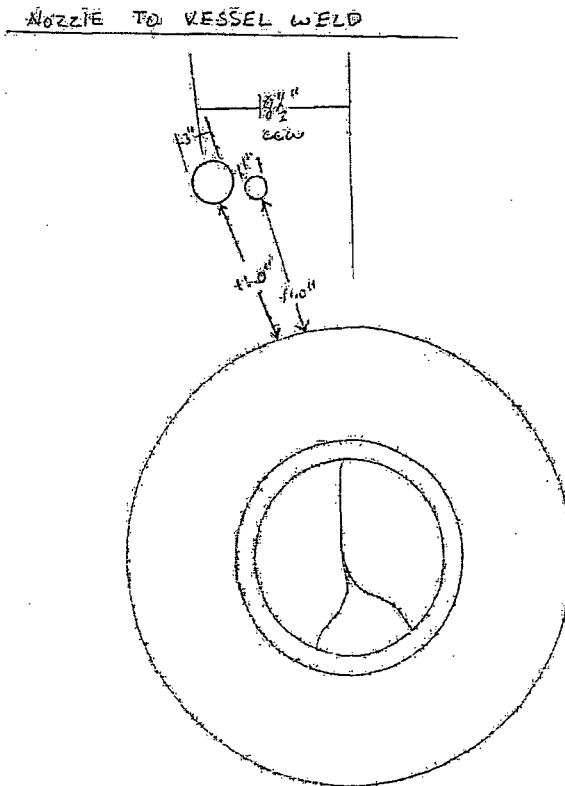


Supplemental Report

Report No.: 2005UT041

Summary No.: 102652

Comments: 4" Limitation due to thermo-couple at 18 1/2" counter clockwise.



Component – N-2D NV Report # 2005UT028

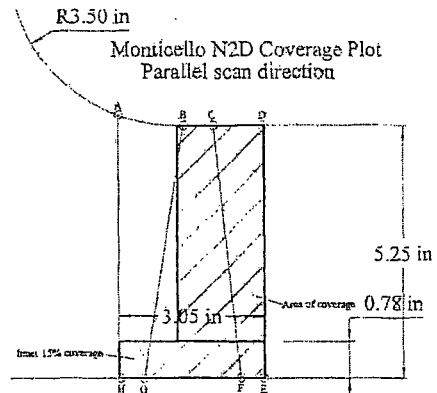
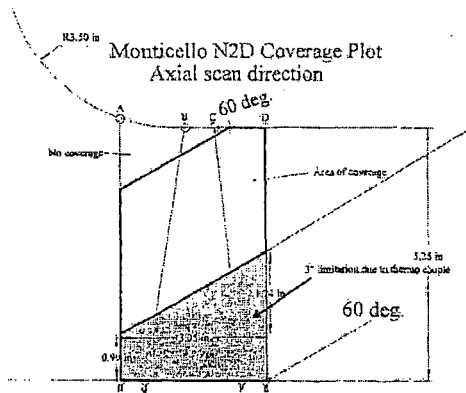


Supplemental Report

Report No.: 2005UT028

Summary No.: 102662

Comments: Monticello N2D Coverage plots.
* Axial scan limitation due to transducer size and radius area, no contact.
* Parallel scan limitation due to radius area, no contact.



Component – N-2D NV Report # 2005UT028



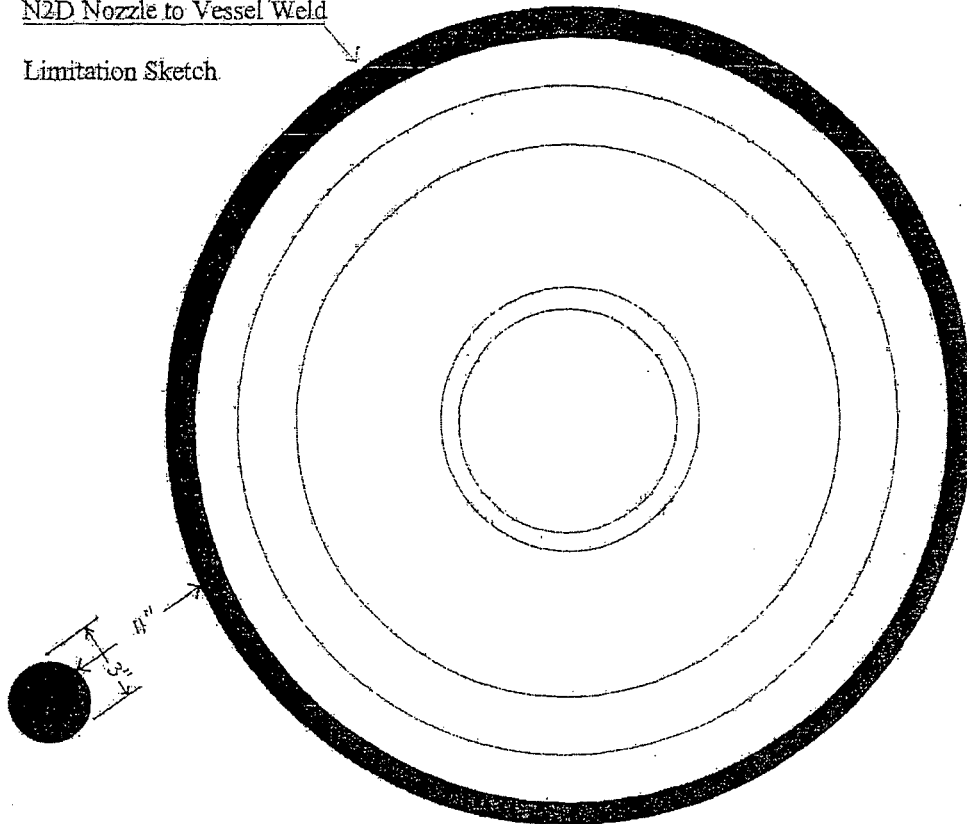
Supplemental Report

Report No.: 2005UT028

Summary No.: 102662

Comments: 3" Limitation due to thermo-couple at 79° clockwise.

N2D Nozzle to Vessel Weld
Limitation Sketch



Component – N-2E NV Report # 2005UT016

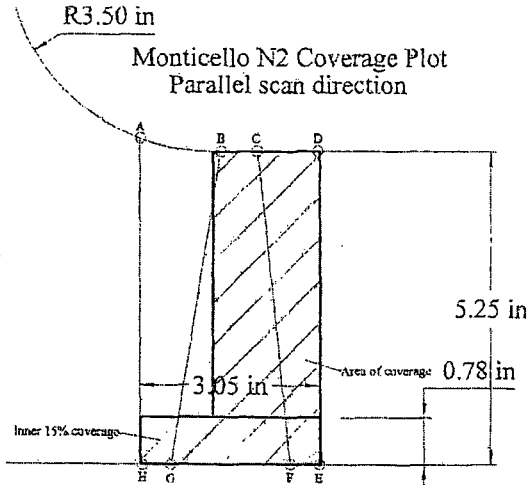


Supplemental Report

Report No.: 2005UT016

Summary No.: 102664

Comments: Limitation due to radius area, no contact.



Component – N-2E NV Report # 2005UT016

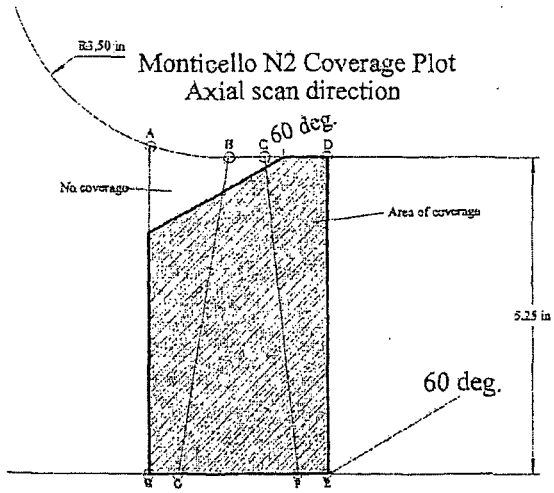


Supplemental Report

Report No.: 2005UT016

Summary No.: 102664

Comments: Limitation due to transducer size and radius area, no contact.



Component – N-2J NV Report # 2005UT005

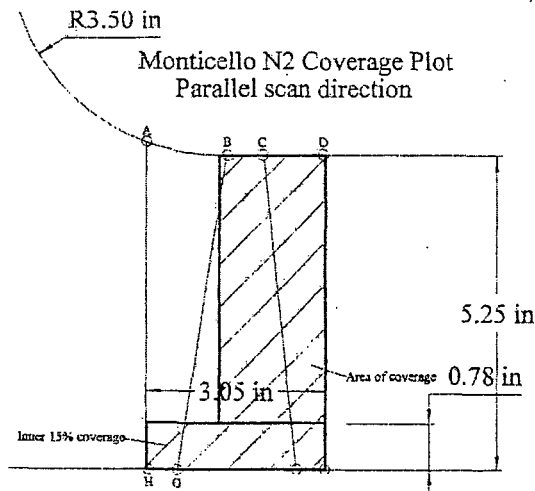


Supplemental Report

Report No.: 2005UT005

Summary No.: 102672

Comments: Limitation due to radius area, no contact.



Component – N-2J NV Report # 2005UT005

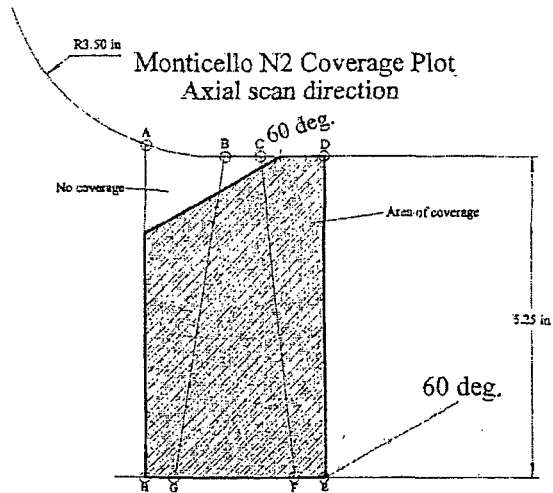


Supplemental Report

Report No.: 2005UT005

Summary No.: 102672

Comments: Limitation due to transducer size and radius area, no contact.



Component – N-3A NV Report # 2005UT023

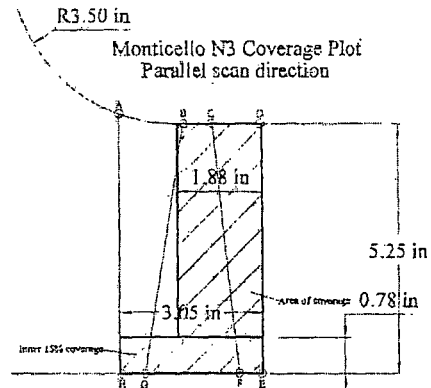
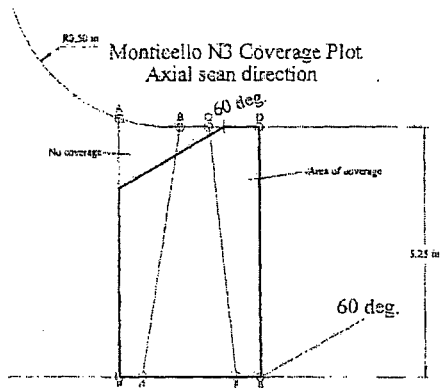


Supplemental Report

Report No.: 2005UT023

Summary No.: 102676

- Comments: Monticello N3 Coverage Plot
- Axial scan limitation due to transducer size and radius area, no contact.
 - Parallel scan limitation due to radius area, no contact.



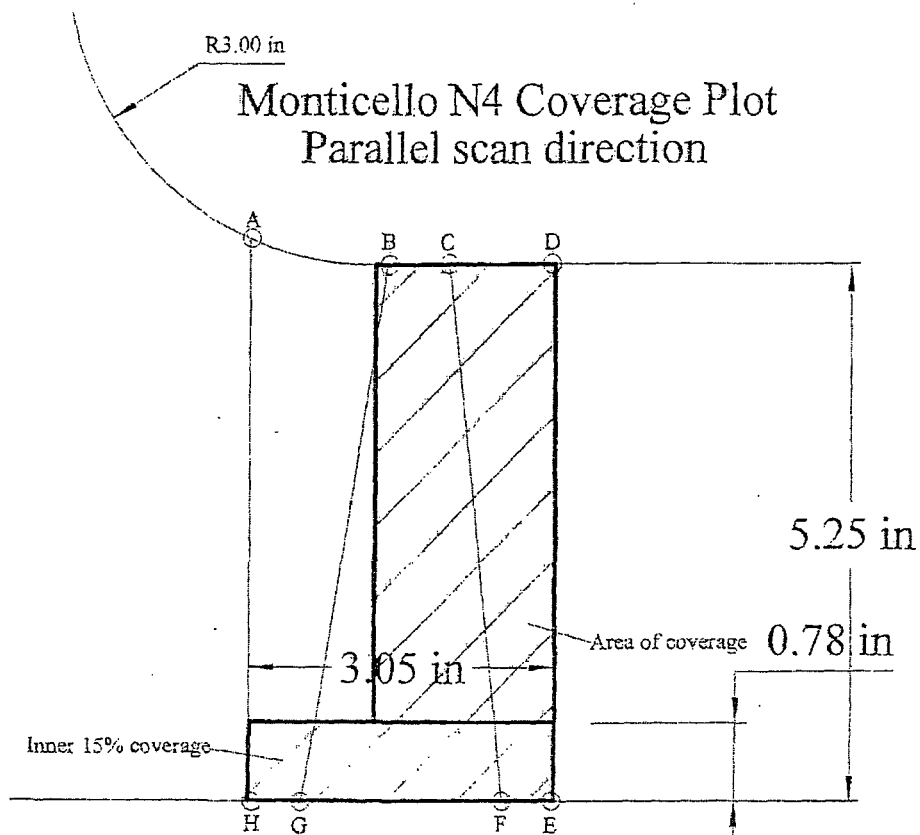


Supplemental Report

Report No.: 2005UT025

Summary No.: 102688

Comments: Limitation due to radius area, no contact.



Component – N-4C NV Report # 2005UT025

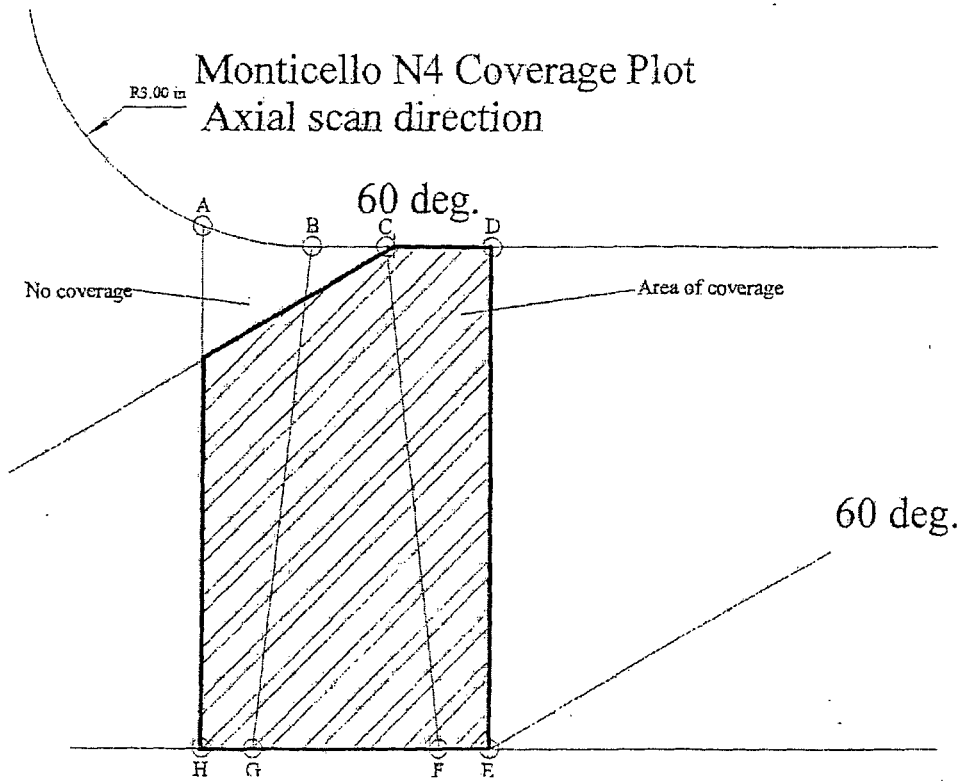


Supplemental Report

Report No.: 2005UT025

Summary No.: 102688

Comments: Limitation due to transducer size and radius area, no contact.



Component – N-5B NV Report # 2005UT018

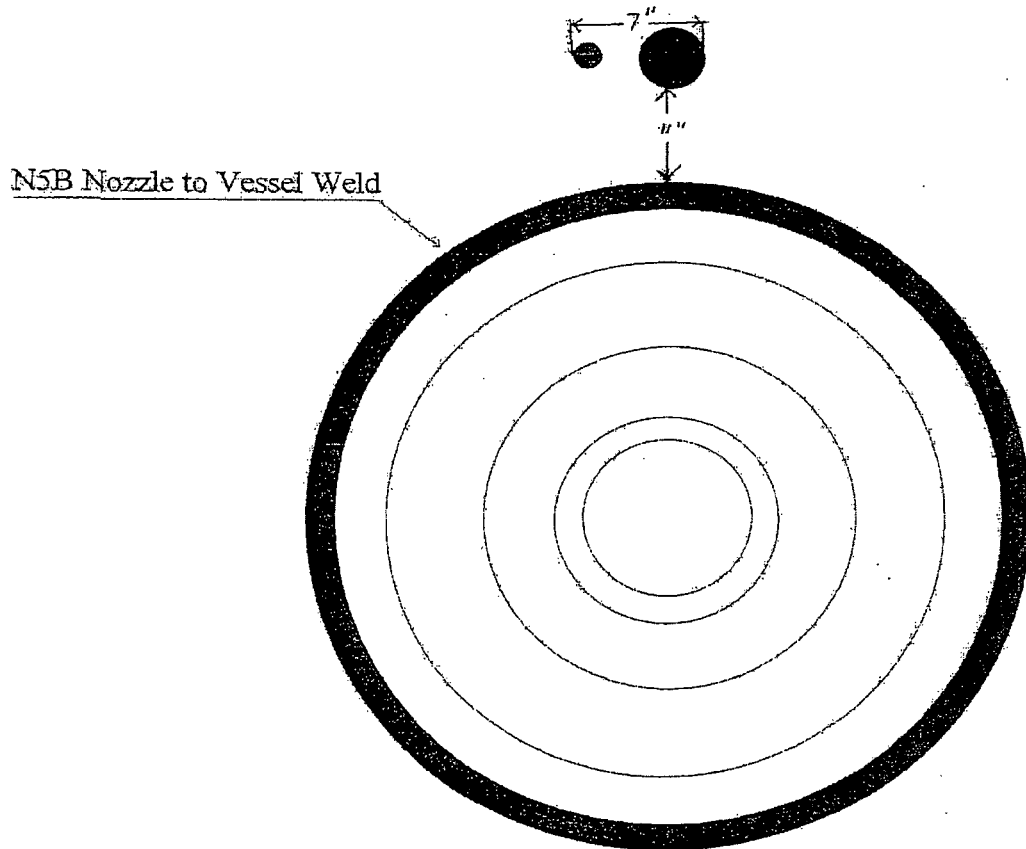


Supplemental Report

Report No.: 2005UT018

Summary No.: 102694

Comments: 7" Limitation due to thermo-couple top dead center of nozzle.



Component – N-8A NV Report # 2005UT037

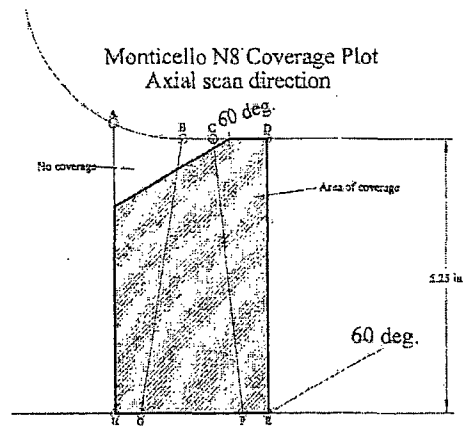
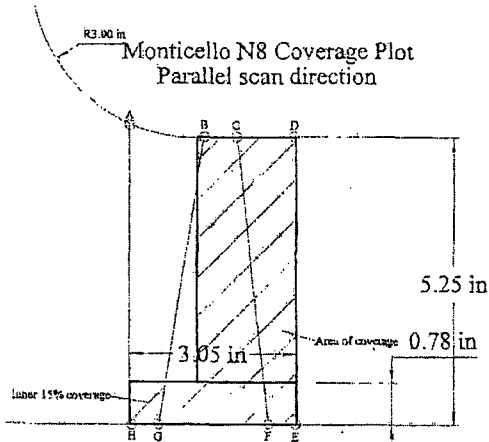


Supplemental Report

Report No.: 2005UT037

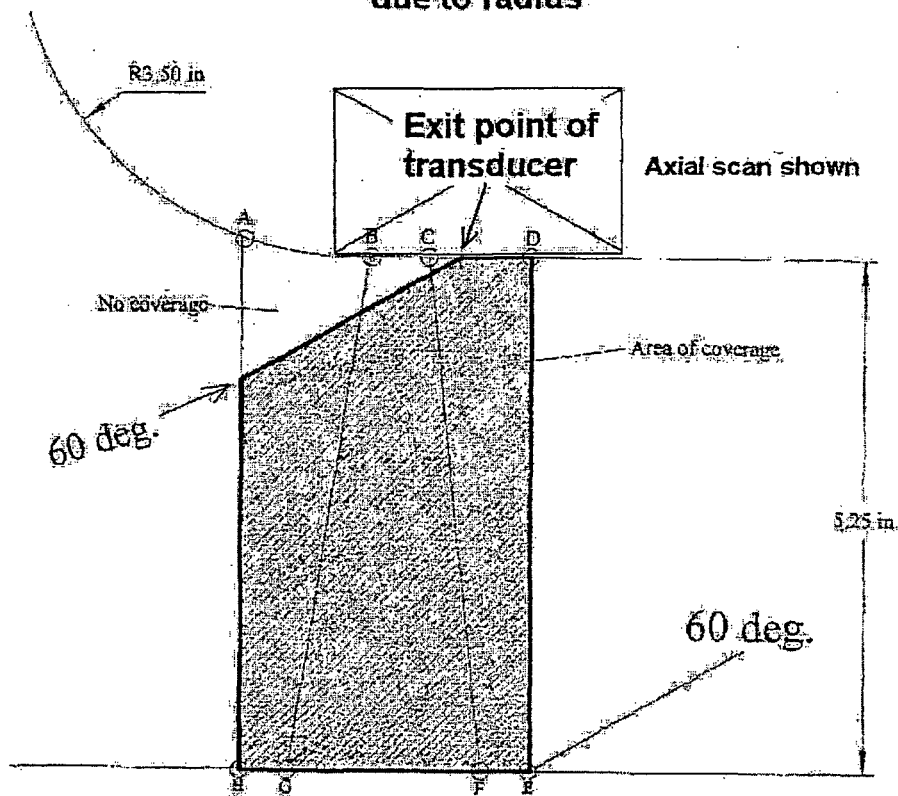
Summary No.: 102696

Comments: Monticello N8 Coverage Plots.
* Axial scan limitation due to transducer size and radius area, no contact.
* Parallel scan limitation due to radius area, no contact.



Typical for Nozzle Limitations

Coverage affected by liftoff
due to radius



N2 Nozzle shown as example

REQUEST FOR AUTHORIZATION TO UTILIZE CODE CASE N-513-2

1. ASME Code Component(s) Affected

ASME Section XI, Moderate Energy Class 2 and Class 3 Piping

2. Applicable ASME Section XI Code Edition and Addenda

The applicable code editions are as follows:

NMC Site	Inservice Inspection	Repair/Replacement
Monticello	1995 Edition with the 1996 Addenda	2001 Edition
Prairie Island	1998 Edition with the 2000 Addenda	1998 Edition with the 2000 Addenda
Point Beach	1998 Edition with the 2000 Addenda	1998 Edition with the 2000 Addenda
Palisades	1989 Edition	1989 Edition
Duane Arnold	1989 Edition	1992 Edition with the 1992 Addenda

Flaws that exceed the acceptance criteria of the above code editions/addenda are required to be accepted by either a repair/replacement activity or an analytical evaluation.

3. Applicable Code Requirements

The applicable code requirements are as follows:

ASME Section XI 1989 Edition

CLASS 3

IWD-3000 states, "This article is in course of preparation. The rules of IWB-3000 may be used."

IWB-3132 provides four ways in which an inservice volumetric or surface examination may be accepted.

1. IWB-3132.1, "Acceptance by Volumetric or Surface Examination"
2. IWB-3132.2, "Acceptance by Repair"

3. IWB-3132.3, "Acceptance by Replacement"
4. IWB-3132.4, "Acceptance by Analytical Evaluation"

IWB-3132.2 states, "Components whose volumetric or surface examination reveals flaws that exceed the acceptance standards listed in Table IWB-3410-1 shall be unacceptable for continued service until the additional examination requirements of IWB-2430 are satisfied, and the flaw shall be either removed by mechanical methods or the component repaired to the extent necessary to meet the acceptance standards of IWB-3000."

IWB-3132.3 states, "As an alternative to the repair requirement of IWB-3132.2, the component or the portion of the component containing the flaw shall be replaced."

IWB-3142 provides five ways in which an inservice visual examination may be accepted.

1. IWB-3142.1, "Acceptance by Visual Examination"
2. IWB-3142.2, "Acceptance by Supplemental Examination"
3. IWB-3142.3, "Acceptance by Corrective Measures or Repairs"
4. IWB-3142.4, "Acceptance by Analytical Evaluation"
5. IWB-3142.5, "Acceptance by Replacement"

IWB-3142.3 states, "Components containing relevant conditions shall be acceptable for continued service if the relevant conditions are corrected or the components are repaired to the extent necessary to meet the acceptance standards specified in Table IWB-3410-1."

IWB-3142.5 states, "As an alternative to either the supplemental examinations of IWB-3142.2, the corrective measures or repairs of IWB-3142.3, or the evaluation of IWB-3142.4, the component or that part of the component containing the relevant condition shall be replaced."

CLASS 2

IWC-3122 provides four ways in which an inservice volumetric and surface examination may be accepted.

1. IWC-3122.1, "Acceptance by Examination"
2. IWC-3122.2, "Acceptance by Repair"
3. IWC-3122.3, "Acceptance by Replacement"
4. IWC-3122.4, "Acceptance by Evaluation"

IWC-3122.2 states, "Components whose examination reveals flaws that exceed the acceptance standards listed in Table IWC-3410-1 shall be unacceptable for continued service until the additional examination

requirements of IWC-2430 are satisfied, and the flaw shall be either removed by mechanical methods or the component repaired to the extent necessary to meet the acceptance standards of IWC-3000."

IWC-3122.3 states, "As an alternative to the repair requirements of IWC-3122.2, a component or the portion of the component containing the flaw shall be replaced."

IWC-3132 provides four ways in which an inservice visual examination may be accepted.

1. IWC-3132.1, "Acceptance by Supplemental Examination"
2. IWC-3132.2, "Acceptance by Corrective Measures or Repairs"
3. IWC-3132.3, "Acceptance by Evaluation"
4. IWC-3132.4, "Acceptance by Replacement"

IWC-3132.2 states, "Components containing relevant conditions shall be acceptable for continued service if the relevant conditions are corrected or the components are repaired to the extent necessary to meet the acceptance standards specified in Table IWC-3410-1."

IWC-3132.4 states, "As an alternative to the supplemental examinations of IWC-3132.1, the corrective measures or repairs of IWC-3132.2, or the evaluation of IWC-3132.3, a component or part of a component containing the relevant condition shall be replaced."

ASME Section XI 1995 Edition with the 1996 Addenda

CLASS 3

IWD-3000 states, "This Article is in course of preparation. The rules of IWB-3000 may be used."

IWB-3132 provides three ways in which an inservice volumetric or surface examination may be accepted.

1. IWB-3132.1, "Acceptance by Volumetric or Surface Examination",
2. IWB-3132.2, "Acceptance by Repair/Replacement Activity", or
3. IWB-3132.3, "Acceptance by Analytical Evaluation".

IWB-3132.2 states, "A component whose volumetric or surface examination detects flaws that exceed the acceptance standards of Table IWB-3410-1 is unacceptable for continued service until the additional examination requirements of IWB-2430 are satisfied and the component is corrected by a repair/replacement activity to the extent necessary to meet the acceptance standards of IWB-3000."

IWB-3142 provides four ways in which an inservice visual examination may be accepted.

1. IWB-3142.1, "Acceptance by Visual Examination"
2. IWB-3142.2, "Acceptance by Supplemental Examination"
3. IWB-3142.3, "Acceptance by Corrective Measures or Repair/Replacement Activity"
4. IWB-3142.4, "Acceptance by Analytical Evaluation"

IWB-3142.3 states, "A component containing relevant conditions is acceptable for continued service if the relevant conditions are corrected by a repair/replacement activity or by corrective measure to the extent necessary to meet the acceptance standards of Table IWB-3410-1."

CLASS 2

IWC-3122 provides three ways in which an Inservice Volumetric and Surface Examinations may be accepted.

1. IWC-3122.1, "Acceptance by Examination"
2. IWC-3122.2, "Acceptance by Repair/Replacement Activity"
3. IWC-3122.3, "Acceptance by Analytical Evaluation"

IWC-3122.2 states, "A component whose examination detects flaws that exceed the acceptance standards of Table IWC-3410-1 is unacceptable for continued service until the additional examination requirements of IWC-2430 are satisfied and the component is corrected by a repair/replacement activity to the extent necessary to meet the acceptance standards of IWC-3000."

IWC-3132 provides four ways in which an inservice visual examinations may be accepted.

1. IWC-3132, "Acceptance"
2. IWC-3132.1, "Acceptance by Supplemental Examination"
3. IWC-3132.2, "Acceptance by Corrective Measures or Repair/Replacement Activity"
4. IWC-3132.3, "Acceptance by Analytical Evaluation"

IWC-3132.2 states, "A component containing relevant conditions is acceptable for continued service if the relevant conditions are corrected by a repair/replacement activity or by corrective measures to the extent necessary to meet the acceptance standards of Table IWC-3410-1."

ASME Section XI 1998 Edition with the 2000 Addenda

CLASS 3

IWD-3000 states, "This Article is in course of preparation. The rules of IWB-3000 may be used."

IWB-3132 provides three ways in which an Inservice Volumetric or Surface Examination may be accepted.

1. IWB-3132.1, "Acceptance by Volumetric or Surface Examination",
2. IWB-3132.2, "Acceptance by Repair/Replacement Activity", or
3. IWB-3132.3, "Acceptance by Analytical Evaluation".

IWB-3132.2 states, "A component whose volumetric or surface examination detects flaws that exceed the acceptance standards of Table IWB-3410-1 is unacceptable for continued service until the additional examination requirements of IWB-2430 are satisfied and the component is corrected by a repair/replacement activity to the extent necessary to meet the acceptance standards of IWB-3000."

IWB-3142 provides four ways in which an Inservice visual examination may be accepted.

1. IWB-3142.1 "Acceptance by Visual Examination"
2. IWB-3142.2 "Acceptance by Supplemental Examination"
3. IWB-3142.3 "Acceptance by Corrective Measures or Repair/Replacement Activity"
4. IWB-3142.4 "Acceptance by Analytical Evaluation"

IWB-3142.3 states, "A component containing relevant conditions is acceptable for continued service if the relevant conditions are corrected by a repair/replacement activity or by corrective measure to the extent necessary to meet the acceptance standards of Table IWB-3410-1."

CLASS 2

IWC-3122 provides three ways in which an Inservice Volumetric and Surface Examinations may be accepted.

1. IWC-3122.1, "Acceptance by Examination"
2. IWC-3122.2, "Acceptance by Repair/Replacement Activity"
3. IWC-3122.3, "Acceptance by Analytical Evaluation"

IWC-3122.2 states, "A component whose examination detects flaws that exceed the acceptance standards of Table IWC-3410-1 is unacceptable for continued service until the additional examination requirements of IWC-2430

are satisfied and the component is corrected by a repair/replacement activity to the extent necessary to meet the acceptance standards of IWC-3000."

IWC-3132 provides four ways in which an inservice visual examination may be accepted.

1. IWC-3132, "Acceptance"
2. IWC-3132.1, "Acceptance by Supplemental Examination"
3. IWC-3132.2, "Acceptance by Corrective Measures or Repair/Replacement Activity"
4. IWC-3132.3, "Acceptance by Analytical Evaluation"

IWC-3132.2 states, "A component containing relevant conditions is acceptable for continued service if the relevant conditions are corrected by a repair/replacement activity or by corrective measures to the extent necessary to meet the acceptance standards of Table IWC-3410-1."

4. Reason for Request

Relief is requested from replacement or internal weld repair of wall thinning conditions resulting from various wall thinning degradation mechanisms such as erosion, corrosion, cavitation, and pitting in moderate energy Class 2 and 3 piping systems in accordance with the design specification and the original construction code. The use of Code Case N-513-2 will provide an acceptable method to evaluate flaws on a temporary basis until the next scheduled outage.

5. Proposed Alternative and Basis for Use

The Nuclear Regulatory Commission in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability," Revision 14, has accepted Code Case N-513-1 with the following limitations:

- 1- Specific safety factors in paragraph 4.0 must be satisfied.
- 2- Code Case N-513 may not be applied to:
 - i. Components other than pipe and tube.
 - ii. Leakage through a gasket
 - iii. Threaded connections employing nonstructural seal welds for leakage prevention (through seal weld leakage is not a structural flaw; thread integrity must be maintained).
 - iv. Degraded socket welds

Code Case N-513-1 permits flaws in Class 2 and 3 moderate energy piping on a temporary basis until the next outage if it can be demonstrated that adequate pipe integrity and leakage containment are maintained. The Code Case is currently applicable to part-through and through wall planar flaws and part-through nonplanar flaws. Service experience has shown that some piping can suffer degradation from nonplanar flaws, such as pitting and microbiological attack, where local inconsequential leakage can occur.

The Code Case can be used for nonplanar through-wall flaws but in a restrictive situation where nonplanar geometry is dominant in one plane. Some plants have used the intent of N-513 for nonplanar leaking flaws; however, relief requests from code requirements are still required because of the stated limited scope of N-513 in section 3.0 of the Code Case. The Code Case was revised (N-513-2) to extend the application to cover all types of nonplanar flaws. The analysis procedures were expanded to address the general case of through-wall degradation. Code Case N-513-2 has broader applications and therefore has a real direct benefit for operating plants.

Code Case N-513-2 includes the incorporation of the improved flaw evaluation procedures for piping that are provided in the new Appendix C of Section XI in the 2002 Addenda.

Code Case N-513-2 addresses the limitations posed in Regulatory Guide 1.147 as follows:

1. Paragraph 4.0 was revised to incorporate references to Appendix C for acceptance and eliminated the provision that lower safety factors may be used.
2. 1.0(a) was revised to limit the application of the code case as specified in the limitation applied in Regulatory Guide 1.147.

NMC considers the proposed alternative of using Code Case N-513-2 to provide an acceptable level of quality and safety in accordance with 10 CFR 50.55a(3)(i).

6. Duration of Proposed Alternative

NMC requests approval of Code Case N-513-2 to be used for each plant's 10-year ISI interval (see table 1 below) or until the NRC publishes Code Case N-513-2 in a future revision of Regulatory Guide 1.147. Upon incorporation into the Regulatory Guide, NMC will review and follow the conditions specified. All other ASME Code, Section XI requirements for which relief was not specifically requested and authorized by the NRC staff will remain applicable including third party review by the Authorized Nuclear Inservice Inspector.

Plant	Applicable ASME Section XI	ISI Interval	Interval Dates
Monticello Nuclear Generating Plant 50-263	1995 Edition with the 1996 Addenda	Fourth	05/01/03 – 05/31/12
Prairie Island Nuclear Generating Plant 50-282 (Unit 1) & 50-306 (Unit 2)	1998 Edition with the 2000 Addenda	Fourth	12/21/04 – 12/20/14
Point Beach Nuclear Plant Units 1 & 2 (50-266 & 50-301)	1998 Edition with the 2000 Addenda	Fourth	07/01/02 – 06/30/12
Palisades Nuclear Plant 50-255	1989 Edition	Third	05/12/95 – 12/12/06
Duane Arnold Energy Center 50-331	1989 Edition	Third	11/01/96 – 10/31/06

7. Precedent

Tennessee Valley Authority (TVA) submitted a relief request pursuant to 10 CFR 50.55a(a)(3)(i), for Browns Ferry Nuclear Plant, Units 1, 2 and 3; Sequoyah Nuclear Plant, Units 1 and 2; and Watts Bar Nuclear Plant, Unit 1, dated November 23, 2003 (ADAMS Accession #ML033320222). TVA requested relief from using the specific formula in Code Case N-513, for the maximum allowable flaw width when planar flaw evaluation rules may be applied. As an alternative, TVA proposed the use of the formula for maximum allowable flaw width from Code Case N-513-1, with applicable errata while retaining the use of all the other provisions and requirements in Code Case N-513. The NRC approved this relief request by letter October 6, 2004 (ADAMS Accession #ML042150438). The TVA relief request is similar to the NMC relief request in that the request involves Code Case N-513. However, NMC is requesting relief to use Code Case N-513-2, which incorporates the limitations specified in Regulatory Guide 1.147 on Code Case N-513-1. In addition, Code Case N-513-2 added a procedure for evaluating non-planar through-wall flaws in moderate energy piping. This revision also includes the improved flaw evaluation procedures for piping added to Section XI, Appendix C, in the 2002 Addenda.

**ASME CODE CASE N-513-2, "EVALUATION CRITERIA FOR
TEMPORARY ACCEPTANCE OF FLAWS IN MODERATE ENERGY
CLASS 2 OR 3 PIPING"**

Approval Date: February 20, 2004

See Numeric Index for expiration
and any reaffirmation dates.

Case N-513-2

Evaluation Criteria for Temporary Acceptance of
Flaws in Moderate Energy Class 2 or 3 Piping
Section XI, Division 1

Inquiry: What requirements may be used for temporary acceptance of flaws, including through-wall flaws, in moderate energy Class 2 or 3 piping, without performing a repair/replacement activity?

Reply: It is the opinion of the Committee that the following requirements may be used to accept flaws, including through-wall flaws, in moderate energy Class 2 or 3 piping, without performing a repair/replacement activity for a limited time, not exceeding the time to the next scheduled outage.

1.0 SCOPE

(a) These requirements apply to the ASME Section III, ANSI B31.1, and ANSI B31.7 piping, classified by the Owner as Class 2 or 3. The provisions of this Case do not apply to the following:

- (1) pumps, valves, expansion joints and heat exchangers;
- (2) socket welds;
- (3) leakage through a flange joint;
- (4) threaded connections employing nonstructural seal welds for leakage protection.

(b) The provisions of the Case apply to Class 2 or 3 piping whose maximum operating temperature does not exceed 200°F (93°C) and whose maximum operating pressure does not exceed 275 psig (1.9 MPa).

(c) The following flaw evaluation criteria are permitted for pipe and tube. The flaw evaluation criteria are permitted for adjoining fittings and flanges to a distance of $(R_o t)^{1/2}$ from the weld centerline.

(d) The provisions of this Case demonstrate the integrity of the item and not the consequences of leakage. It is the responsibility of the Owner to demonstrate system operability considering effects of leakage.

2.0 PROCEDURE

(a) The flaw geometry shall be characterized by volumetric inspection methods or by physical measurement. The full pipe circumference at the flaw location shall be inspected to characterize the length and depth of all flaws in the pipe section.

(b) Flaw shall be classified as planar or nonplanar.

(c) When multiple flaws, including irregular (compound) shape flaws, are detected, the interaction and combined area loss of flaws in a given pipe section shall be accounted for in the flaw evaluation.

(d) A flaw evaluation shall be performed to determine the conditions for flaw acceptance. Section 3.0 provides accepted methods for conducting the required analysis.

(e) Frequent periodic inspections of no more than 30 day intervals shall be used to determine if flaws are growing and to establish the time at which the detected flaw will reach the allowable size. Alternatively, a flaw growth evaluation may be performed to predict the time at which the detected flaw will grow to the allowable size. The flaw growth analysis shall consider the relevant growth mechanisms such as general corrosion or wastage, fatigue, or stress corrosion cracking. When a flaw growth analysis is used to establish the allowable time for temporary operation, periodic examinations of no more than 90 day intervals shall be conducted to verify the flaw growth analysis predictions.

(f) For through-wall leaking flaws, leakage shall be observed by daily walkdowns to confirm the analysis conditions used in the evaluation remain valid.

(g) If examinations reveal flaw growth rate to be unacceptable, a repair or replacement shall be performed.

(h) Repair or replacement shall be performed no later than when the predicted flaw size from either periodic inspection or by flaw growth analysis exceeds the acceptance criteria of 4.0, or the next scheduled outage, whichever occurs first. Repair or replacement shall be in accordance with IWA-4000 or IWA-7000, respectively, in Editions and Addenda prior to the 1991 Addenda; and, in the 1991 Addenda and later, in accordance with IWA-4000.

The Committee's function is to establish rules of safety, relating only to pressure integrity, governing the construction of boilers, pressure vessels, transport tanks and nuclear components, and service inspection for pressure integrity of nuclear components and transport tanks, and to interpret these rules when questions arise regarding their intent. This Code does not address other safety issues relating to the construction of boilers, pressure vessels, transport tanks and nuclear components, and the service inspection of nuclear components and transport tanks. The user of the Code should refer to other pertinent codes, standards, laws, regulations or other relevant documents.

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CASES OF ASME BOILER AND PRESSURE VESSEL CODE

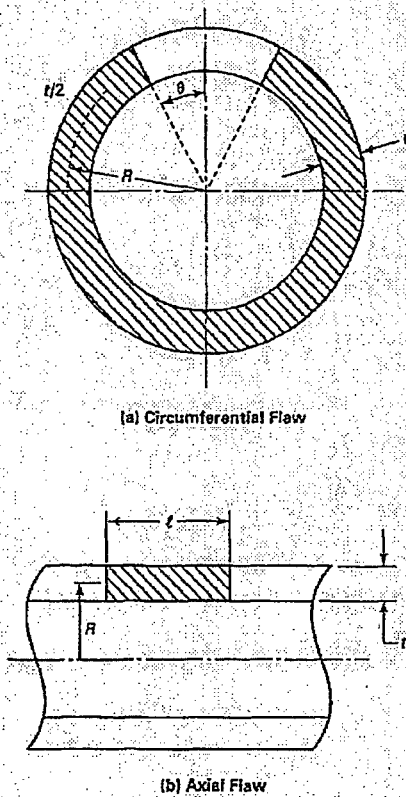


FIG. 1 THROUGH-WALL FLAW GEOMETRY

(i) Evaluations and examination shall be documented in accordance with IWA-6300. The Owner shall document the use of this Case on the applicable data report form.

3.0 FLAW EVALUATION

(a) For planar flaws, the flaw shall be bounded by a rectangular or circumferential planar area in accordance with the methods described in Appendix C. IWA-3300 shall be used to determine when multiple proximate flaws are to be evaluated as a single flaw. The geometry of a through-wall planar flaw is shown in Fig. 1.

(b) For planar flaws in austenitic piping, the evaluation procedure in Appendix C shall be used. Flaw depths up to 100% of wall thickness may be evaluated. When through-wall circumferential flaws are evaluated, the formulas for evaluation given in C-5320 of Appendix C may be used, with the flaw penetration (a/t) equal to unity.

When through-wall axial flaws are evaluated, the allowable flaw length is:

$$l_{all} = 1.58 \sqrt{Rt} \left[\left(\frac{\sigma_f}{(SF_m)\sigma_u} \right)^2 - 1 \right]^{1/2} \quad (1)$$

$$\sigma_h = pD_o/2t \quad (2)$$

$$\sigma_f = (S_y + S_u)/2 \quad (3)$$

where

- p = pressure for the loading condition
- D_o = pipe outside diameter
- σ_f = flow stress
- S_y = Code specified yield strength
- S_u = Code specified ultimate tensile strength and
- SF_m = structural factor on primary membrane stress as specified in C-2622

Material properties at the temperature of interest shall be used.

(c) For planar flaws in ferritic piping, the evaluation procedure of Appendix C shall be used. Flaw depths up to 100% of wall thickness may be evaluated. When through-wall circumferential flaws are evaluated in accordance with C-5300 or C-6300, the flaw penetration (a/t) shall be set to unity. When through-wall axial flaws are evaluated in accordance with C-5400, the allowable length is defined by Eqs. (1) through (3), with the appropriate structural factors from Appendix C, C-2622. When through-wall flaws are evaluated in accordance with C-7300 or C-7400, the formulas for evaluation given in C-4300 may be used, but with values for F_m , F_b , and F applicable to through-wall flaws. Relations for F_m , F_b , and F that take into account flaw shape and pipe geometry (R/t ratio) shall be used. The appendix to this Case provides equations for F_m , F_b , and F for a selected range of R/t . Geometry of a through-wall crack is shown in Fig. 1.

(d) For nonplanar flaws, the pipe is acceptable when the remaining pipe thickness (t_p) is greater than or equal to the minimum wall thickness t_{min} :

$$t_{min} = \frac{pD_o}{2(S + 0.4p)} \quad (4)$$

where

p = maximum operating pressure at flaw location

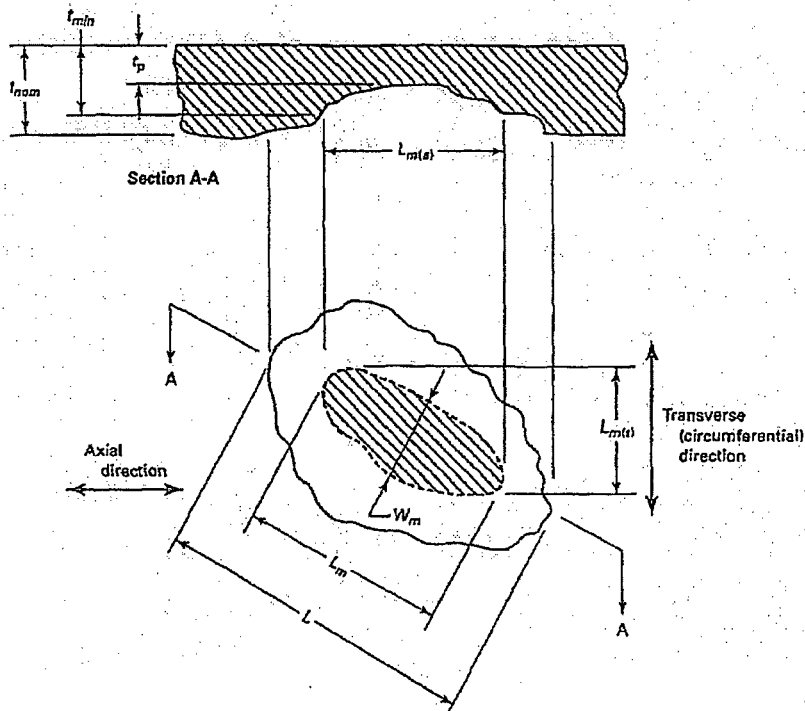


FIG. 2 ILLUSTRATION OF NONPLANAR FLAW DUE TO WALL THINNING

S = allowable stress at operating temperature and the longitudinal stress limits for the Construction Code are satisfied for a uniform wall thickness equal to t_p .

Alternatively, an evaluation may be performed as given below. The evaluation procedure is a function of the depth and the extent of the affected area as illustrated in Fig. 2

(1) When the width of wall thinning W_m that exceeds t_{min} , is less than or equal to $0.5 (R_o t)^{1/2}$, where R_o is the outside radius and W_m is defined in Fig. 2, the flaw can be classified as a planar flaw and evaluated in accordance with 3.0(a) through 3.0(c), above. When the above requirement is not satisfied, (2) shall be met.

(2) When the transverse extent of wall thinning that exceeds t_{min} , $L_m(t)$, is not greater than $(R_o t_{min})^{1/2}$, t_{aloc} is determined from Curve 1 of Fig. 3, where $L_m(t)$ is defined in Fig. 2. When the above requirement is not satisfied, (3) shall be met.

(3) When the maximum extent of wall thinning that exceeds t_{min} , L_m , is less than or equal to $2.65 (R_o t_{min})^{1/2}$

and t_{nom} is greater than $1.13 t_{min}$, t_{aloc} is determined by satisfying both of the following equations:

$$\frac{t_{aloc}}{t_{min}} \geq \frac{1.5 \sqrt{R_o t_{min}}}{L} \left[1 - \frac{t_{nom}}{t_{min}} \right] + 1.0 \quad (5)$$

$$\frac{t_{aloc}}{t_{min}} \geq \frac{0.353 L_m}{\sqrt{R_o t_{min}}} \quad (6)$$

When the above requirements are not satisfied, (4) shall be met.

(4) When the requirements of (1), (2), and (3) above are not satisfied, t_{aloc} is determined from Curve 2 of Fig. 3. In addition, t_{aloc} shall satisfy the following equation:

$$\frac{t_{aloc}}{t_{min}} \geq \frac{\left[0.5 + \frac{t_{nom}}{t_{min}} \left(\frac{\sigma_b}{S} \right) \right]}{1.8} \quad (7)$$

where σ_b is the nominal pipe longitudinal bending stress resulting from all primary pipe loadings.

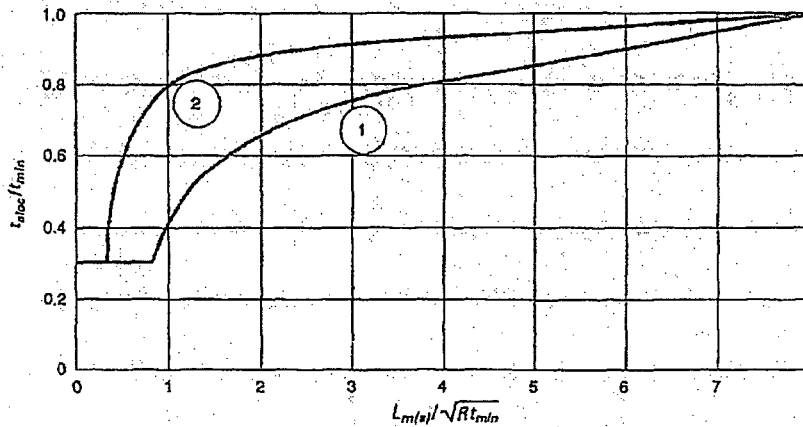


FIG. 3 ALLOWABLE WALL THICKNESS AND LENGTH OF LOCALLY THINNED AREA

(e) When there is through-wall penetration along a portion of the thinned wall, as illustrated in Fig. 4, the flaw may be evaluated by the branch reinforcement method. The thinned area including the through-wall penetration shall be represented by a circular opening at the flaw location. Only the portion of the flaw lying within t_{adj} need be considered as illustrated in Fig. 5. When evaluating multiple flaws in accordance with IWA-3330, only the portions of the flaws contained within t_{adj} need be considered.

The minimum wall thickness, t_{min} , shall be determined by Eq. (4). For evaluation purposes, the adjusted wall thickness, t_{adj} , is the postulated thickness as shown in Fig. 5. The pipe wall thickness is defined as the thickness of the pipe in the non-degraded region as shown in Fig. 5(a). The diameter of the opening is equal to d_{adj} as defined by t_{adj} as shown in Fig 5(a). The postulated value for t_{adj} shall be greater than t_{min} and shall not exceed the pipe wall thickness. The t_{adj} value may be varied between t_{min} and the pipe wall thickness to determine whether there is a combination of t_{adj} and d_{adj} that satisfies the branch reinforcement requirements.

The required area reinforcement for the postulated circular opening, d_{adj} and t_{adj} , as illustrated in Fig. 5(b), shall be calculated in accordance with NC-3643.3 or ND-3643.3, as appropriate. If a flaw growth analysis is performed, the growth in flaw dimensions shall consider the degradation mechanism(s) as relevant to the application. The flaw is acceptable when there is sufficient thickness in the degraded area to provide the required area reinforcement. Compliance with the primary stress limits of the Construction Code shall be verified. The flow area

of the flaw, or the total of the flow areas of multiple flaws that are combined into a single flaw for the purpose of evaluation, shall not exceed the lesser of the flow area of the pipe or 20 in.² (130 cm²).

(f) Alternatively, when there is through-wall penetration along a portion of the thinned wall as illustrated in Fig. 4 the flaw may be evaluated as two independent planar through-wall flaw-one oriented in the axial direction and the other oriented in the circumferential direction. The minimum wall thickness t_{min} shall be determined by Eq. (4). The through-wall lengths for each flaw are the lengths L_{axial} and L_{circ} , where the local thickness is equal to t_{min} as projected along the axial and circumferential planes as shown in Fig. 4. The two planar flaws so constructed shall be evaluated to 3.0(a) and 3.0(b) or 3.0(c), as appropriate. If a flaw growth analysis is performed, the growth in flaw dimensions shall consider both corrosion and crack-growth mechanisms as relevant to the application. The flow area of the flaw, or the total of the flow areas of multiple flaws that are combined into a single flaw for the purpose of evaluation, shall not exceed the lesser of the flow area of the pipe or 20 in.² (130 cm²).

(g) In performing a flaw growth analysis, the procedures in C-3000 may be used as guidance. Relevant growth rate mechanisms shall be considered. When stress corrosion cracking (SCC) is active, the following growth rate equation shall be used:

$$da/dt = S_T CK_{max}^n \quad (8)$$

where da/dt is flaw growth rate in inches/hour, K_{max} is the maximum stress intensity factor under long-term

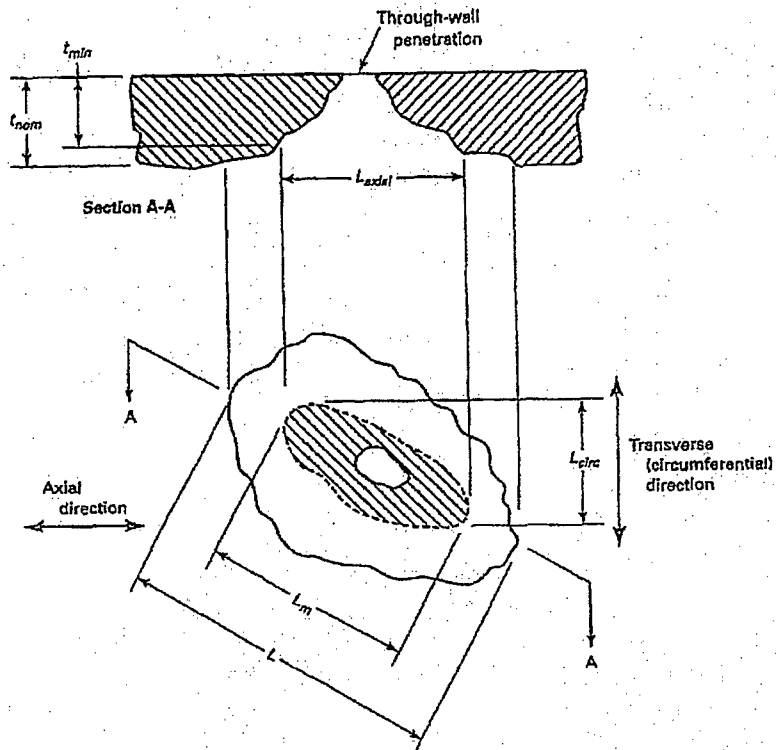
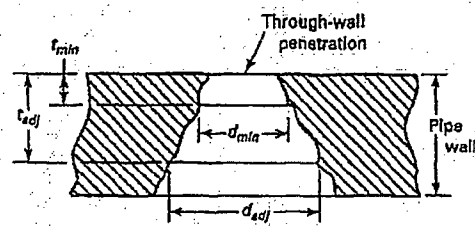


FIG. 4 ILLUSTRATION OF THROUGH-WALL NONPLANAR FLAW DUE TO WALL THINNING

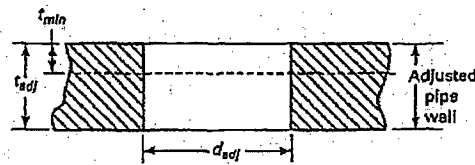
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(a) Adjusted Wall Thickness



(b) Equivalent Hole Representation

FIG. 5 ILLUSTRATION OF ADJUSTED WALL THICKNESS AND EQUIVALENT HOLE DIAMETER

steady state conditions in ksi in. $0.5 S_T$ is a temperature correction factor, and C and n are material constants.

For intergranular SCC in austenitic steels, where $T \leq 200^\circ\text{F}$ (93°C).

$$C = 1.79 \times 10^{-8}$$

$$S_T = 1$$

$$n = 2.161$$

For transgranular SCC in austenitic steels, where $T \leq 200^\circ\text{F}$ (93°C).

$$C = 1.79 \times 10^{-7}$$

$$S_T = 3.71 \times 10^{-8} [10^{(0.01842 T - 12.25)}]$$

$$n = 2.161$$

The temperature T is the metal temperature in degrees Fahrenheit. The flaw growth rate curves for the above SCC growth mechanisms are shown in Figs. 6 and 7. Other growth rate parameters in Eq. 8 may be used, provided they are supported by appropriate data.

(h) For nonferrous materials, nonplanar and planar flaws may be evaluated following the general approach of 3.0(a) through 3.0(g) above. For planar flaws in ductile materials, the approach given in 3.0(b) and 3.0(g) may be used; otherwise, the approach given in 3.0(c) and 3.0(g) should be applied. Structural factors provided in 4.0 shall be used. It is the responsibility of the evaluator to establish conservative estimates of strength and fracture toughness for the piping material.

4.0 ACCEPTANCE CRITERIA

Piping containing a circumferential planar flaw is acceptable for temporary service when flaw evaluation provides a margin using the structural factors in Appendix C, C-2621. For axial planar flaws, the structural factors for temporary acceptance are as specified in Appendix C, C-2622. Piping containing a nonplanar part through-wall flaw is acceptable for temporary service if $t_p \geq t_{aloc}$, where t_{aloc} is determined from 3.0(d). Piping containing a nonplanar through-wall flaw is acceptable for temporary service when the flaw conditions of 3.0(e) or 3.0(f) are satisfied.

5.0 AUGMENTED EXAMINATION

An augmented volumetric examination or physical measurement to assess degradation of the affected system shall be performed as follows:

(a) From the engineering evaluation, the most susceptible locations shall be identified. A sample size of at least five of the most susceptible and accessible locations,

or, if fewer than five, all susceptible and accessible locations shall be examined within 30 days of detecting the flaw.

(b) When a flaw is detected, an additional sample of the same size as defined in 5(a) shall be examined.

(c) This process shall be repeated within 15 days for each successive sample, until no significant flaw is detected or until 100% of susceptible and accessible locations have been examined.

6.0 NOMENCLATURE

- C = coefficient in the crack growth relationship
- D_o = outside pipe diameter
- F = nondimensional stress intensity factor for through-wall axial flaw under hoop stress
- F_b = nondimensional stress intensity factor for through-wall circumferential flaw under pipe bending stress
- F_m = nondimensional stress intensity factor for through-wall circumferential flaw under membrane stress
- L = maximum extent of a local thinned area with $t < t_{min}$
- L_{axial} = length of through-wall crack for the hole penetration in the axial direction of the pipe
- L_{circ} = length of through-wall crack for the hole diameter penetration in the circumferential direction of the pipe
- L_m = maximum extent of a local thinned area with $t < t_{min}$
- $L_{m(a)}$ = axial extent of wall thinning below t_{min}
- $L_{m(t)}$ = circumferential extent of wall thinning below t_{min}
- R = pipe radius
- R_o = outside pipe radius
- S = allowable stress at operating temperature
- SF_m = structural factor on primary membrane stress
- S_T = coefficient for temperature dependence in the crack growth relationship
- S_u = Code-specified ultimate tensile strength
- S_y = Code-specified yield strength
- W_m = maximum extent of a local thinned area perpendicular to L_m with $t < t_{min}$
- c = half crack length
- da/dt = flaw growth rate for stress corrosion cracking
- d_{adj} = diameter equivalent circular hole at t_{adj}
- d_{min} = diameter of equivalent circular hole at t_{min}
- l = total crack length = $2c$

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CASES OF ASME BOILER AND PRESSURE VESSEL CODE

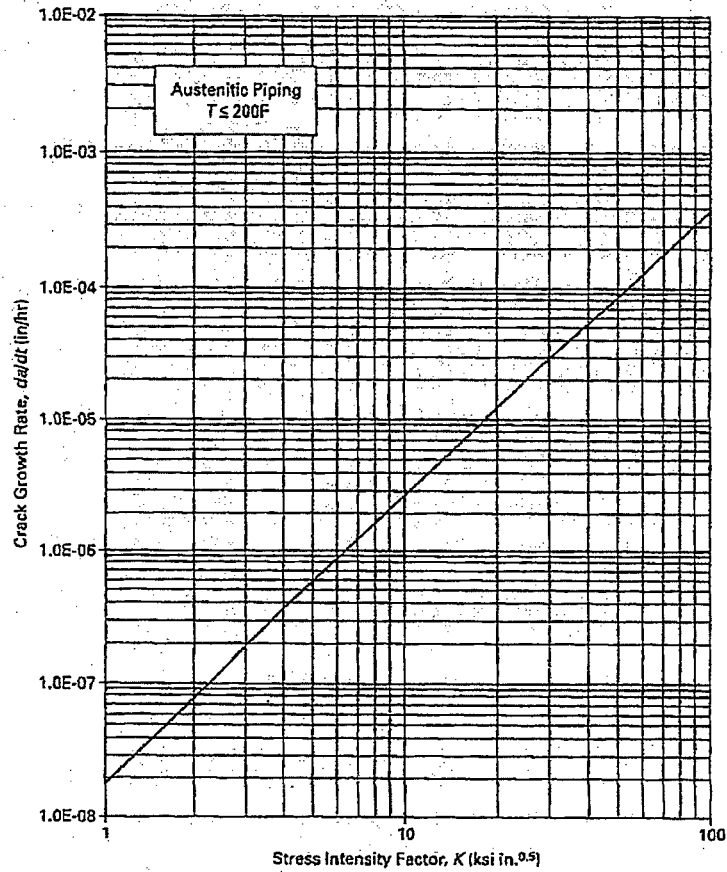
l_{all} = allowable axial through-wall flaw length
 n = exponent in the crack growth relationship
 p = maximum operating pressure at flaw location
 t = wall thickness
 t_{adj} = adjusted wall thickness which is varied for evaluation purposes in the evaluation of a through-wall nonplanar flaw
 t_{oloc} = allowable local thickness for a nonplanar flaw
 t_{min} = minimum wall thickness required for pressure loading
 t_{nom} = nominal wall thickness
 t_p = minimum remaining wall thickness
 λ = nondimensional half crack length for through-wall axial flaw
 σ_f = material flow stress
 σ_h = pipe hoop stress due to pressure

σ_l = nominal longitudinal bending stress for primary loading without stress intensification factor
 θ = half crack angle for through-wall circumferential flaw

7.0 APPLICABILITY

This Case is applicable from the 1983 Edition with the Winter 1985 Addenda through the 2001 Edition with the 2003 Addenda. References in this Case to Appendix C shall mean Appendix C of the 2002 Addenda. For editions and addenda prior to 2002 Addenda, Class 1 pipe flaw evaluation procedures may be used for other piping classes. As a matter of definition, the term "structural factor" is equivalent to the term "safety factor" that is used in earlier editions and addenda.

CASES OF ASME BOILER AND PRESSURE VESSEL CODE



GENERAL NOTE: (SI conversion: 1.0 in/hr = 7.06×10^{-3} mm/sec; 1.0 Ksi in.^{0.5} = 1.099 MPa m^{0.5}; °C = (°F - 32)/1.8).

FIG. 6 FLAW GROWTH RATE FOR IGSCC IN AUSTENITIC PIPING

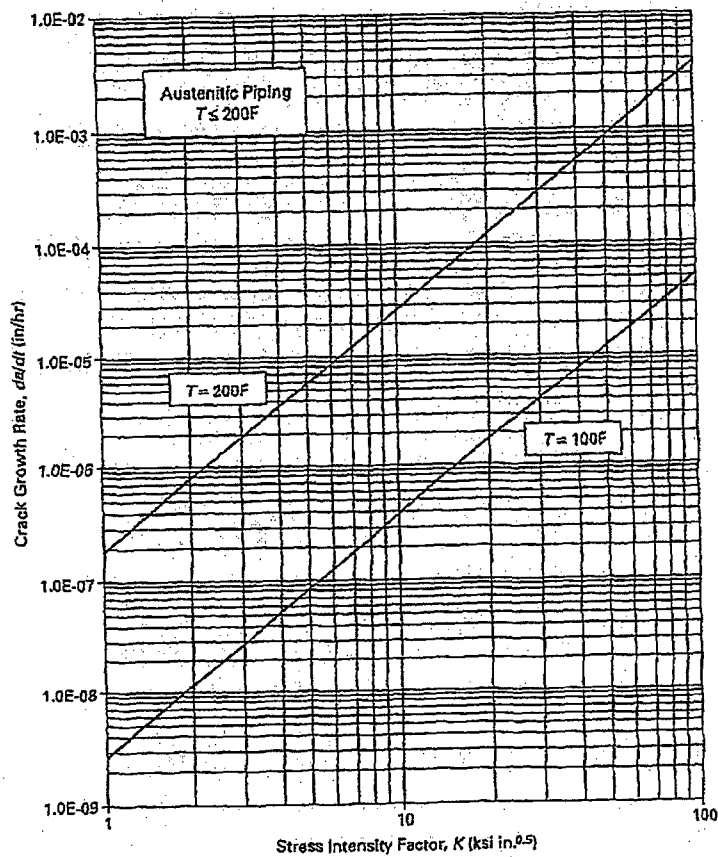
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CASE (continued)
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CASES OF ASME BOILER AND PRESSURE VESSEL CODE



GENERAL NOTE: (SI conversion: 1.0 in/hr = 7.06×10^{-3} mm/sec; 1.0 Ksi in.^{0.5} = 1.099 MPa m^{0.5}; °C = (°F - 32)/1.8).

FIG. 7 FLAW GROWTH RATE FOR TGSCC IN AUSTENITIC PIPING

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APPENDIX I

RELATIONS FOR F_m , F_b , AND F FOR THROUGH-WALL FLAWS

I-1.0 DEFINITIONS

For through-wall flaws, the crack depth (a) will be replaced with half crack length (c) in the stress intensity factor equations in C-7300 and C-7400 of Section XI, Appendix C. Also, Q will be set equal to unity in C-7400.

I-2.0 CIRCUMFERENTIAL FLAWS

For a range of R/t between 5 and 20, the following equations for F_m and F_b may be used:

$$F_m = 1 + A_m (\Theta/\pi)^{1.5} + B_m (\Theta/\pi)^{2.5} + C_m (\Theta/\pi)^{3.5}$$

$$F_b = 1 + A_b (\Theta/\pi)^{1.5} + B_b (\Theta/\pi)^{2.5} + C_b (\Theta/\pi)^{3.5}$$

where

Θ = Half crack angle = c/R

R = Mean pipe radius

t = Pipe wall thickness

and

$$A_m = -2.02917 + 1.67763 (R/t) - 0.07987 (R/t)^2 + 0.00176 (R/t)^3$$

$$B_m = 7.09987 - 4.42394 (R/t) + 0.21036 (R/t)^2 - 0.00463 (R/t)^3$$

$$C_m = 7.79661 + 5.16676 (R/t) - 0.24577 (R/t)^2 + 0.00541 (R/t)^3$$

$$A_b = -3.26543 + 1.52784 (R/t) - 0.072698 (R/t)^2 + 0.0016011 (R/t)^3$$

$$B_b = 11.36322 - 3.91412 (R/t) + 0.18619 (R/t)^2 - 0.004099 (R/t)^3$$

$$C_b = -3.18609 + 3.84763 (R/t) - 0.18304 (R/t)^2 + 0.00403 (R/t)^3$$

Equations for F_m and F_b are accurate for R/t between 5 and 20 and become increasingly conservative for R/t greater than 20. Alternative solutions for F_m and F_b may be used when R/t is greater than 20.

I-3.0 AXIAL FLAWS

For internal pressure loading, the following equation for F may be used:

$$F = 1 + 0.072449\lambda + 0.64856\lambda^2 - 0.2327\lambda^3 + 0.038154\lambda^4 - 0.0023487\lambda^5$$

where

c = half crack length

$\lambda = c/(Rt)^{1/2}$

The equation for F is accurate for λ between 0 and 5. Alternative solutions for F may be used when λ is greater than 5.

**10 CFR 50.55a REQUEST NO. 15
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

1. ASME Code Component(s) Affected

Components affected are American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), Section XI, Class 1, Reactor Vessel Nozzle-to-Vessel welds specified below and in-detail in Table A:

Recirculation Inlet	Nozzle N-2B	Weld - N-2B NV
Recirculation Inlet	Nozzle N-2G	Weld - N-2G NV
Feedwater Inlet	Nozzle N-4A	Weld - N-4A NV
Reactor Head Spare	Nozzle N-6A	Weld - N-6A NV
Capped Control Rod Drive (CRD) Return	Nozzle N-9	Weld - N-9 NV

2. Applicable ASME Section XI Code Edition and Addenda

The applicable ASME Section XI Code for the Monticello Nuclear Generating Plant (MNGP), Fourth Ten-Year Inservice Inspection (ISI) Interval is the 1995 Edition with the 1996 Addenda.

3. Applicable Code Requirement

ASME Class 1 Nozzle-to-Vessel welds are subject to the examination requirements of Subsection IWB Table IWB-2500-1, as shown below, and 10 CFR 50.55a(b)(2)(xv)(G). The welds are required to be examined once within the Fourth Ten-Year Interval:

Code Class: 1
References: IWB-2500, Table IWB-2500-1
Examination Category: B-D
Item Number: B3.90
Description: Nozzle-to-Vessel Welds
Component Numbers: See Section 1 and Table A
System: Reactor Vessel
Examination Method: Volumetric - Ultrasonic Testing (UT)
Examination Volume: Figure IWB-2500-7(b)

In August 2005, the Nuclear Regulatory Commission (NRC) issued Regulatory Guide (RG) 1.147, Revision 14, Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1 (Reference 1). In RG 1.147, the NRC identifies the ASME Code Cases that they have determined to be acceptable alternatives to applicable parts of Section XI, and that these Code Cases may be used by licensees without requesting authorization from the NRC provided that they are used with any identified limitations or modifications. RG 1.147, Table 1 lists the

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INSERVICE INSPECTION IMPRACTICALITY**

following two Code Cases as acceptable to the NRC for use by a licensee with no identified limitations or modifications: 1) Code Case N-460 (Reference 2), and 2) Code Case N-613-1 (Reference 3).

Code Case N-460 states in part, "when the entire examination volume or area cannot be examined due to interference by another component or part geometry, a reduction in examination coverage on any Class 1 or Class 2 weld may be accepted provided the reduction in coverage for that weld is less than 10 percent."

NRC Information Notice (IN) 98-42 (Reference 4) termed a reduction in coverage of less than 10 percent to be "essentially 100 percent." IN 98-42 states in part, "The NRC has adopted and further refined the definition of 'essentially 100 percent' to mean 'greater than 90 percent'...has been applied to all examinations of welds or other areas required by ASME Section XI."

Code Case N-613-1 provides an alternative examination volume that includes the width of the weld plus one-half inch of adjacent base metal on each side of the widest part of the weld. In comparison, the examination volume required by the Figure IWB-2500-7(b) includes the width of the weld plus the adjacent base metal on each side of the widest part of the weld equal to one-half of the vessel shell wall thickness.

4. Impracticality of Compliance

Construction Permit CPPR-31 was obtained for the MNGP in 1967. The MNGP systems and components were designed and fabricated before the examination requirements of ASME Section XI were formalized and published. Therefore, MNGP was not specifically designed to meet the requirements of ASME Section XI and full compliance is not feasible or practical within the limits of the current plant design.

10 CFR 50.55a recognizes the limitations to inservice inspection of components in accordance with Section XI of the ASME Code that are imposed due to early plants' design and construction, as follows:

10 CFR 50.55a(g)(1): For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued prior to January 1, 1971, components (including supports) must meet the requirements of paragraphs (g)(4) and (5) of this section to the extent practical.

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

10 CFR 50.55a(g)(4): Throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and pre-service examination requirements, set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code ... to the extent practical within the limitations of design, geometry and materials of construction of the components.

10 CFR 50.55a(g)(5)(iii): If the licensee has determined that conformance with certain code requirements is impractical for its facility, the licensee shall notify the Commission and submit, as specified in § 50.4, information to support the determinations.

The inspection limitations on the subject components are due to inherent nozzle design geometric contours (see Table A).

A description of the examination methodology used to provide the maximum obtainable coverage is provided in Section 6 of this request. This methodology is based on ASME Section XI, Appendix VIII qualification and was applied to the extent practical within the design constraints of the components. Enclosure 3 provides cross-sectional diagrams of the subject welds showing the geometric contour of the component design in relation to the welds and the coverage obtained within the examination volume requirements of Code Case N-613-1, Figure 2.

5. Burden Caused by Compliance

Compliance with the examination coverage requirements of ASME Section XI would require modification, redesign, or replacement of components where geometry is inherent to the component design.

6. Proposed Alternative and Basis for Use

Proposed Alternative

In accordance with 10 CFR 50.55a(g)(5)(iii), relief is requested for the components listed in Table A on the basis that the required examination coverage of "essentially 100 percent" is impractical due to physical obstructions and the limitations imposed by design, geometry and materials of construction.

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

Nuclear Management Company (NMC) performed qualified examinations that achieved the maximum, practical amount of coverage obtainable within the limitations imposed by the design of the components. Additionally, as Class 1 examination Category B-P components, a VT-2 examination is performed on the subject components of the Reactor Coolant Pressure Boundary (RCPB) during system pressure tests each refueling outage. This was completed during the 2007 refueling outage and no evidence of leakage was identified for these components.

Therefore, pursuant to 10 CFR 50.55a(g)(5)(iii), NMC requests relief from the requirements of ASME Section XI Table IWB-2500-1, Category B-D, Item B3.90, and proposes to utilize these completed exams as acceptable alternatives that provide reasonable assurance of continued structural integrity.

Basis for Use

The NMC Nondestructive Examination (NDE) procedures incorporate inspection techniques qualified under Appendix VIII of the ASME Section XI Code by the Performance Demonstration Initiative (PDI) for examination of the subject nozzle-to-vessel welds, and allow the examination volume to meet the provisions of alternative requirements (i.e., Code Case N-613-1).

The examinations were performed using a manual contact method from the nozzle outside blend radius and vessel surfaces. Coverage was obtained by following the scan parameters designated within NMC NDE procedures and as defined by MNGP specific Electric Power Research Institute (EPRI) computer modeling reports (References 5 and 6) for each nozzle configuration and angle. It should be noted that that the scans defined by the EPRI report are only applicable to the inner 15 percent of the weld volume when scanning in the parallel direction.

The refracted longitudinal wave mode of propagation was applied for all the radial scans of the exam volume, and to the outer 85 percent of the exam volume for parallel scans. The shear wave mode of propagation was applied for each of the transducer and wedge combinations required for the remaining inner 15 percent of the parallel scan exam volume.

The subject components received the required examination(s) to the extent practical within the limited access of the component design. One hundred (100) percent coverage was obtained for the inner 15 percent of the examination volume. The examination limitations for the subject components were encountered within the outer 85 percent of the examination volume. For the examinations conducted, satisfactory results were achieved, and no evidence of unacceptable flaws was detected with the inspection techniques.

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

Due to the design of these welds it was not feasible to effectively perform a volumetric examination of "essentially 100 percent" of the required volume. The nozzle-to-vessel welds are accessible from the vessel plate side of the weld and are examined to the extent practical, but there are no qualified examinations to obtain coverage of the excluded areas within the outer 85 percent of the examination volume due to the nozzle forging curvature.

Additional coverage for the limited areas was not achievable or practical, based on the latest qualified ultrasonic technology, nor by other considered examinations methods, such as radiography. NMC has concluded that if significant degradation existed in the subject welds, it would have been identified by the examinations performed.

Additionally, as Class 1 examination category B-P components, VT-2 examinations were performed on the subject components in association with the Reactor Coolant Pressure Boundary system pressure test performed during the 2007 refueling outage. No evidence of leakage was identified during this system test.

The materials for the subject components are A508 Cl II nozzle forgings welded to A533 Cl I vessel shell plate. A review of operating experience within the nuclear industry did not reveal any instances of cracking in this location and type of weldment.

The MNGP reactor vessel water chemistry is controlled in accordance with the 2004 revision to the BWR Water Chemistry Guidelines (Reference 7). Also a hydrogen water chemistry system is used to reduce the oxidizing environment in the reactor coolant. These additional measures provide added assurance against the initiation of cracking or corrosion from the inside surface of the reactor vessel. An inerted primary containment environment during operation provides assurance of corrosion protection on the outside surface of the reactor vessel.

The provisions described above as an alternative to the code requirement will continue to provide reasonable assurance of the structural integrity of the subject welds. The examinations were completed to the extent practical and evidenced no unacceptable flaws present. VT-2 examinations performed on the subject components during system pressure testing each refueling outage (in accordance with examination Category B-P) provide continued assurance that *the structural integrity of the subject components is maintained*. Additionally, the MNGP Water Chemistry Program and inerted primary containment environment provide added measures of protection for the component materials. Therefore, pursuant to 10 CFR 50.55a(g)(5)(iii), NMC requests relief from the ASME Section XI examination requirements for the subject nozzle-to-vessel welds.

**10 CFR 50.55a REQUEST NO. 15
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

7. Duration of Proposed Alternative

NMC requests the granting of this relief for the Fourth Ten-Year Inservice Inspection Interval of the Inservice Inspection Program for the MNGP that is scheduled to end on May 31, 2012.

8. Precedents

The NRC has granted relief for other nozzle-to-vessel shell welds at the MNGP, most recently for the current Fourth Ten-Year Inservice Inspection Interval (Reference 8). Also, the NRC has granted relief for the Quad Cities Nuclear Power Station, Units 1 and 2 (Reference 9), the Dresden Nuclear Power Station, Units 2 and 3 (Reference 10), and the Prairie Island Nuclear Generating Plant, Unit 2 (Reference 11).

**10 CFR 50.55a REQUEST NO. 15
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

REFERENCES

1. Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 14, August 2005.
2. ASME Section XI Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds."
3. ASME Section XI Code Case N-613-1, "Ultrasonic Examination of Full Penetration Nozzles in Vessels, Examination Category B-D, Item No's. B3.10 and B3.90, Reactor Nozzle-To-Vessel Welds, Figures IWB-2500-7(a), (b), and (c)."
4. NRC Information Notice 98-42, "Implementation of 10 CFR 50.55a(g) In-service Inspection Requirements."
5. EPRI Internal Report IR-2004-63, "Monticello Nozzle Inner Radius and Nozzle-to-Shell Weld Examinations," dated December 2004.
6. EPRI Internal Report IR-2006-100, "Monticello Nozzle Inner Corner Regions and Nozzle-to-Shell Weld Examinations," dated January 2006.
7. BWRVIP-130, "BWR Water Chemistry Guidelines - 2004 Revision" (EPRI Topical Report TR-1008192).
8. NRC letter to NMC, "Monticello Nuclear Generating Plant (MNGP) - Fourth 10-Year Interval Inservice Inspection (ISI) Program Plan Relief Request No. 13 (TAC No. MC8882)," dated July 18, 2006.
9. Letter from NRC to Exelon Generation Company, LLC, "Quad Cities, Units 1 and 2 - Relief Request CR-39 for Third 10-Year Inservice Inspection Interval (TAC Nos. MC2427 and MC2428)," dated May 10, 2005.
10. Letter from NRC to Exelon Generation Company, LLC, "Dresden Nuclear Power Station, Units 2 and 3 - Relief Request CR-26 For Third 10-Year Inservice Inspection Interval (TAC Nos. MC3269 and MC3270)," dated October 1, 2004.
11. NRC letter to NMC, "Prairie Island Nuclear Generating Plant, Unit 2 - Evaluation of Relief Request No. 16 for the Unit 2 3rd 10-year Interval Inservice Inspection Program (TAC No. MC1775)," dated October 18, 2004.

**10 CFR 50.55a REQUEST NO. 15
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

**TABLE A - Category B-D, "Full Penetration Welds of Nozzles in Vessels," Item No. B3.90
Percent Coverage and Limitations for Nozzles N-2B, N-2G, N-4A, N-6A, and N-9**

Code Category and Item No.	System and Component Description	Component ID	Code Component and Examination Volume Required	Percent* Coverage Obtained	Limitations	Exam Report Number
B-D B3.90	Reactor Vessel, Recirculation Inlet Nozzle N-2B	N-2B NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	78%	Limited due to nozzle configuration.	2007UT058
B-D B3.90	Reactor Vessel, Recirculation Inlet Nozzle N-2G	N-2G NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	78%	Limited due to nozzle configuration.	2007UT061
B-D B3.90	Reactor Vessel, Feedwater Inlet Nozzle N-4A	N-4A NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	79%	Limited due to nozzle configuration.	2007UT103
B-D B3.90	Reactor Vessel, Top Head Spare Nozzle N-6A	N-6A NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	86%	Limited due to nozzle configuration.	2007UT104
B-D B3.90	Reactor Vessel, CRD Return Nozzle (capped) N-9	N-9 NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	85%	Limited due to nozzle configuration.	2007UT102

* Due to the nozzle design it was not feasible to effectively examine essentially 100 percent of the required examination volume as defined in Figure 2 of Code Case N-613-1. Percentages are conservatively rounded down to the nearest whole number. It should be noted that 100 percent of the inner 15 percent was examined for all components listed above.

**10 CFR 50.55a REQUEST NO. 15
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

**EXAM LIMITATIONS IMPOSED BY COMPONENT
DESIGN AND CONSTRUCTION**

This enclosure contains a series of excerpts from the ISI Ultrasonic Testing (UT) reports applicable to the subject components.

These excerpts contain sketches depicting the component configuration with physical limitations imposed by the design, e.g., geometrical contour, weld position, interferences, and a cross sectional view depicting the UT coverage and limitations in relation to the required examination volume.

Also included is a sketch of a typical reactor vessel nozzle contour and the resulting effect that causes the UT transducer to lift and lose effective coupling when it reaches the nozzle blend radius.

COMPONENT	REPORT	PAGE(S)
N-2B NV	2007UT058	Pages 1-2
N-2G NV	2007UT061	Pages 3-4
N-4A NV	2007UT103	Page 5
N-6A NV	2007UT104	Page 6
N-9 NV	2007UT102	Page 7
Typical Reactor Vessel Nozzle Contour Affecting Transducer Contact at blend radius		Page 8

Coverage drawings excerpted from applicable reports

Component N-2B NV

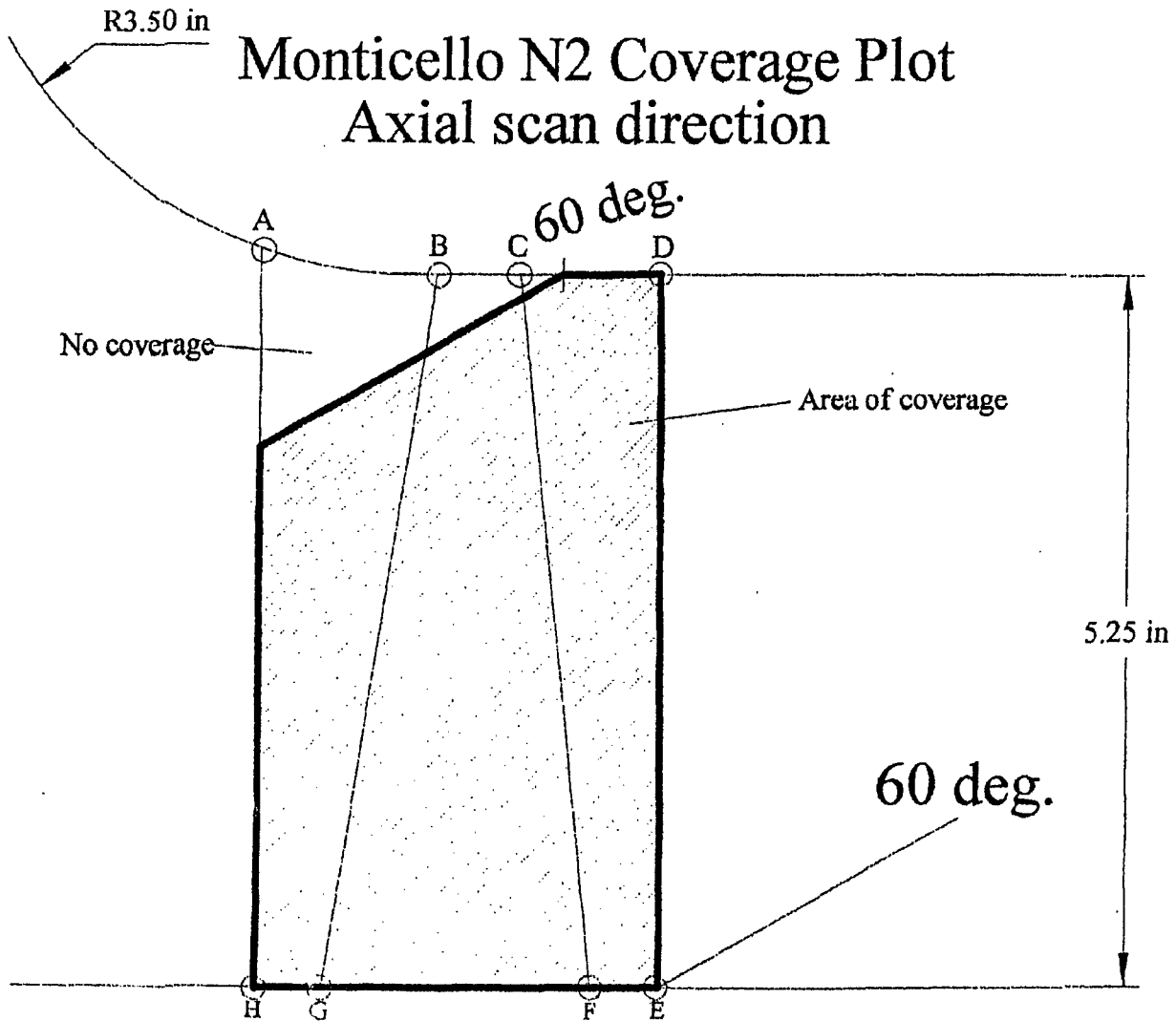
Report # 2007UT058



Supplemental Report

Report No.: 2007UT058

Summary No.: 102658

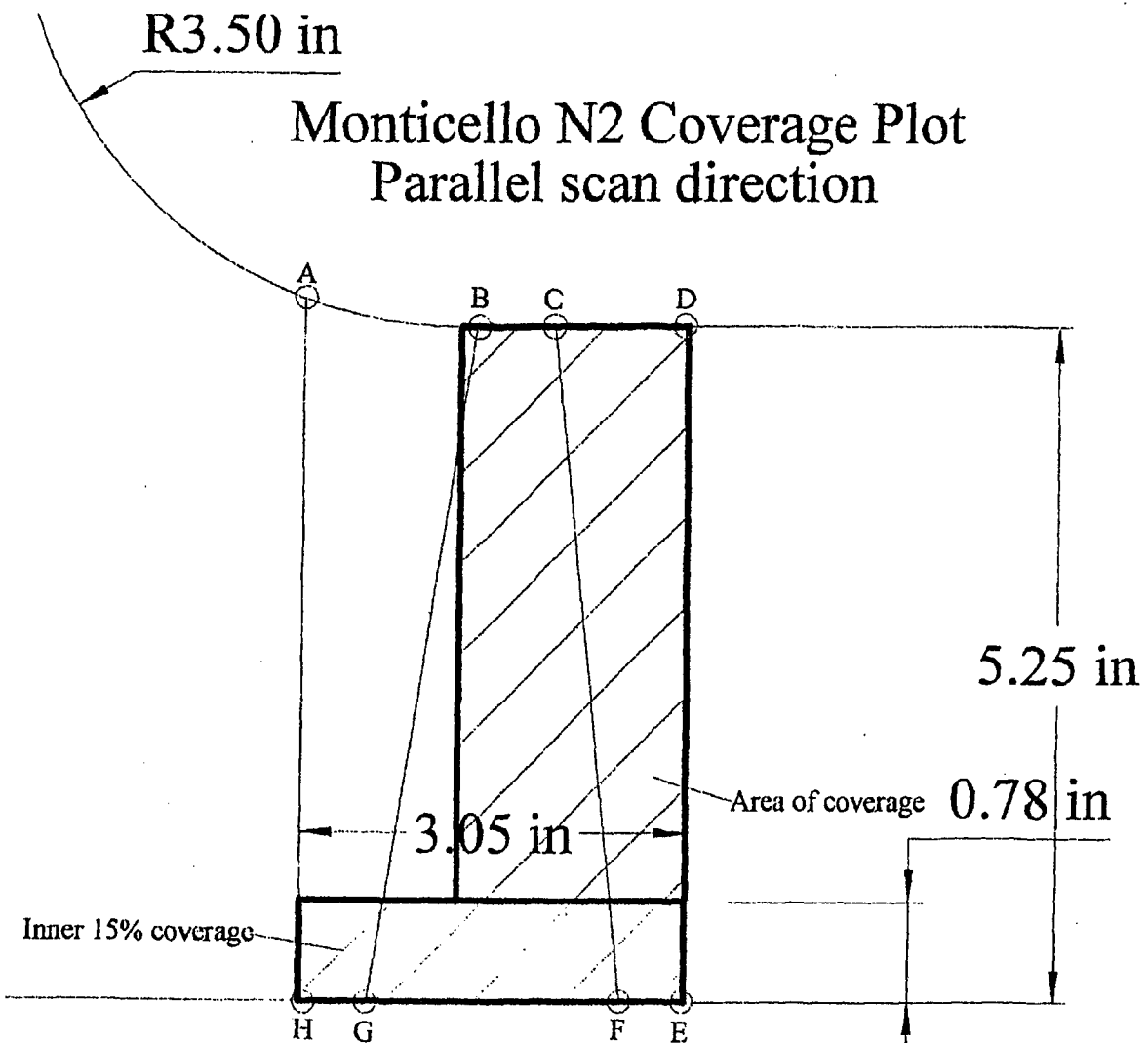


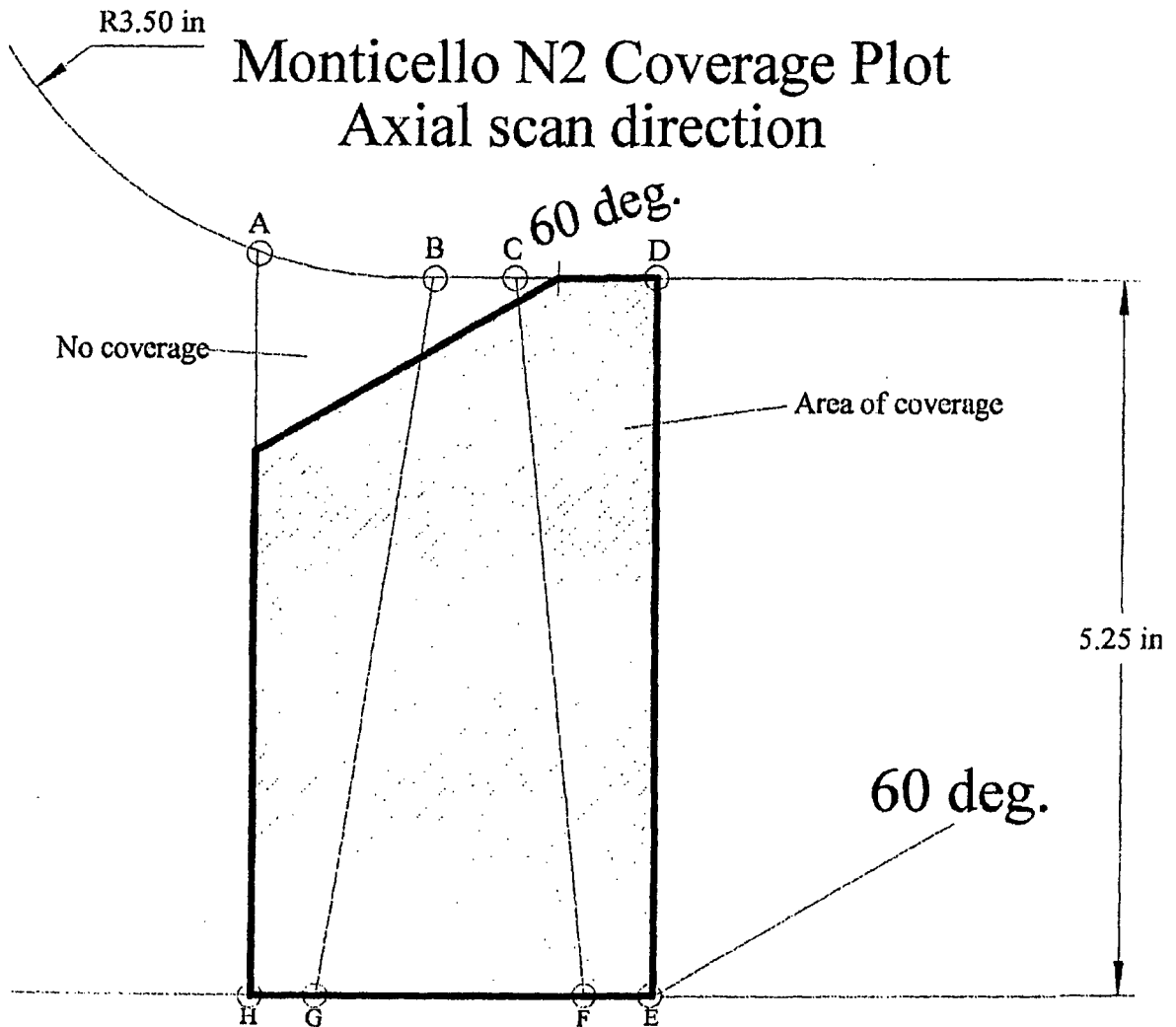


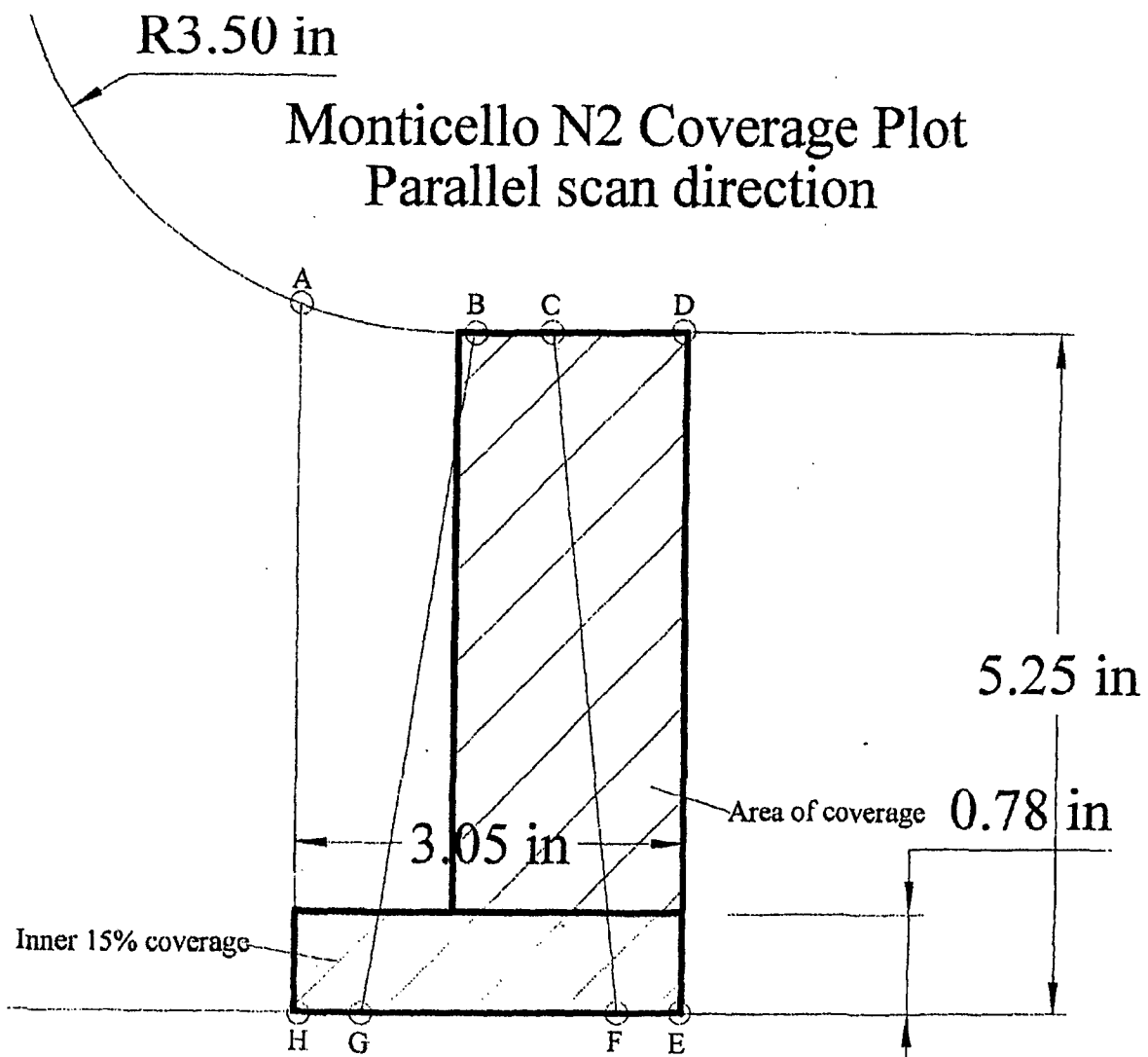
Supplemental Report

Report No.: 2007UT058

Summary No.: 102658







Component N-4A NV

Report # 2007UT103

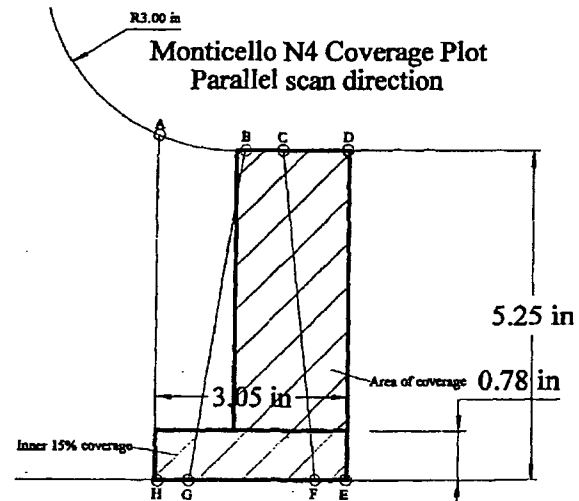
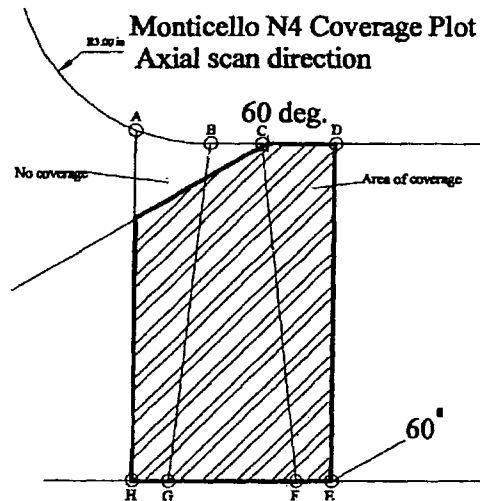


Supplemental Report

Report No.: 2007UT103

Summary No.: 102684

Comments: Coverage Plots



Component N-6A NV

Report # 2007UT104

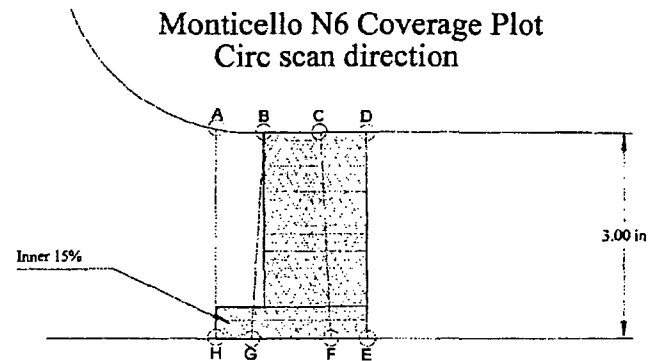
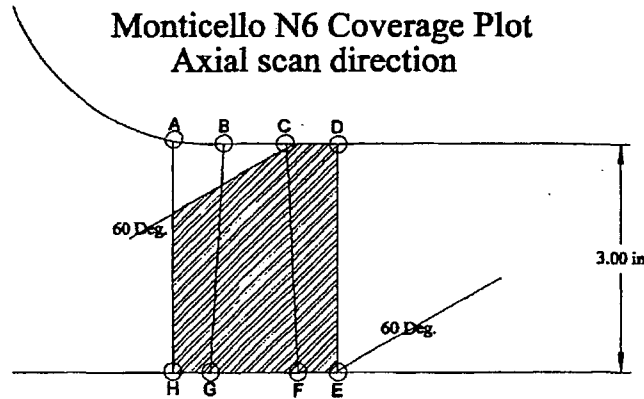


Supplemental Report

Report No.: 2007UT104

Summary No.: 102375

Comments: N-6A NV Coverage Plots



Component N-9 NV

Report # 2007UT102

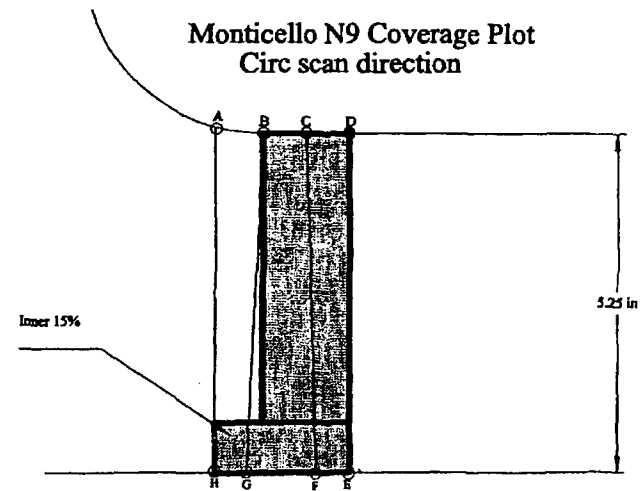
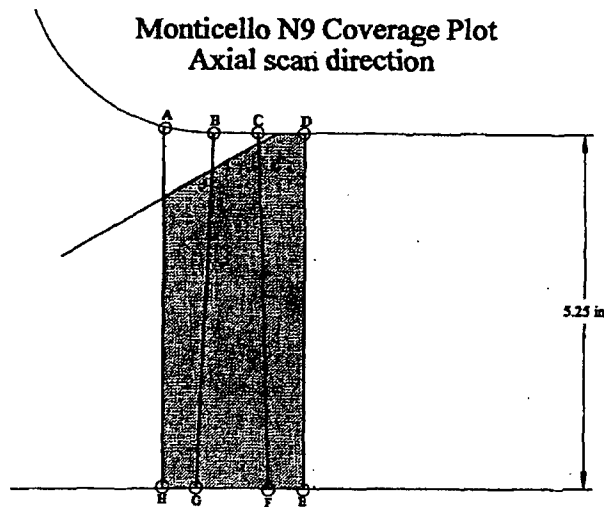


Supplemental Report

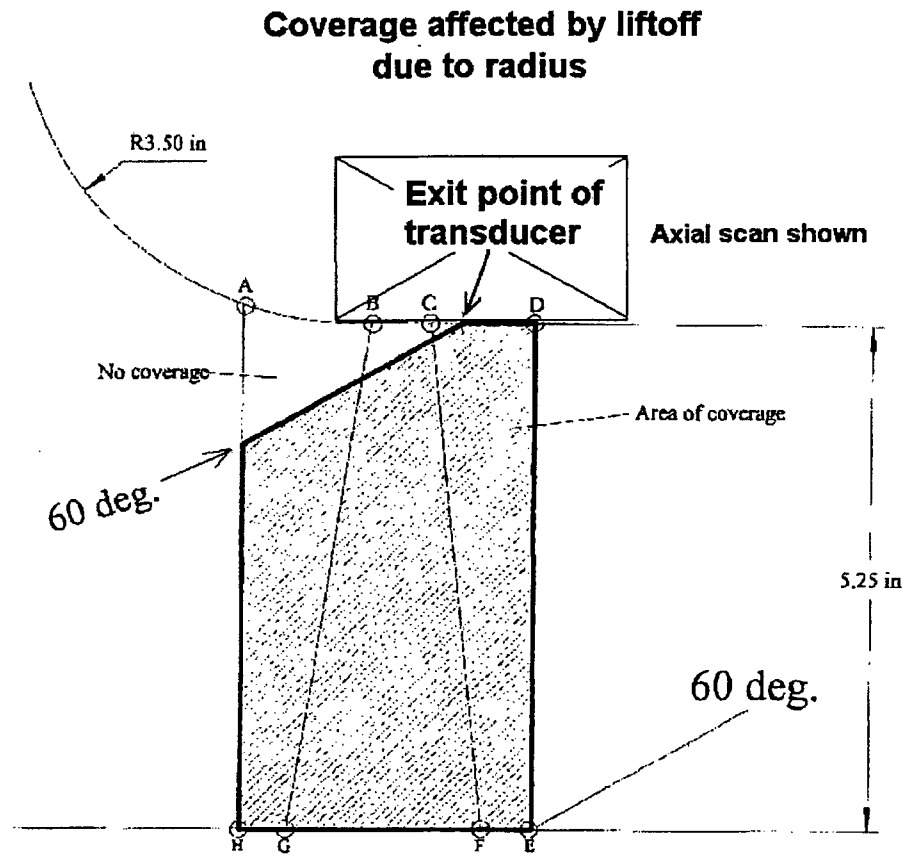
Report No.: 2007UT102

Summary No.: 102700

Comments: Coverage Plots



Typical Representation of Nozzle Limitations



N2 Nozzle shown as example

MONTICELLO NUCLEAR GENERATING PLANT

10 CFR 50.55a REQUEST NO. 16

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
WHICH PROVIDES AN ACCEPTABLE LEVEL OF QUALITY OR SAFETY**

**ALTERNATIVE TO NOZZLE-TO-VESSEL WELD AND
INNER RADIUS EXAMINATIONS**

10 CFR 50.55a Request No. 16

Proposed Alternative In Accordance With 10 CFR 50.55a(a)(3)(i) Which Provides an Acceptable Level of Quality or Safety

Alternative to Nozzle-to-Vessel Weld and Inner Radius Examinations

1.0 ASME Code Component(s) Affected

Code Class: 1

Component Numbers: N2, N3, N5, N6 and N8 Nozzles
(See Enclosure 2 for complete list
of nozzle identifications.)

Examination Category: B-D (Inspection Program B)

Item Number: B3.90 and B3.100

Description: Alternative to ASME Section XI,
Table IWB-2500-1 (for the components
described above)

2.0 Applicable ASME Code Edition and Addenda

The Monticello Nuclear Generating Plant (MNGP) is currently in the fourth 10-year Inservice Inspection (ISI) Program interval and is committed to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," (ASME Section XI), 1995 Edition through 1996 Addenda. Additionally, for ultrasonic examinations, ASME Section XI, Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," of the 1995 Edition through 1996 Addenda is implemented, as required and modified by 10 CFR 50.55a.

3.0 Applicable Code Requirement

Table IWB-2500-1, "Examination Category B-D, Full Penetration Welded Nozzles in Vessels - Inspection Program B"

Class 1 nozzle-to-vessel weld and nozzle inner radii examination requirements are delineated in Item Number B3.90, "Nozzle-to-Vessel Welds," and B3.100, "Nozzle Inside Radius Section." The required method of examination is

volumetric. All nozzles with full penetration welds to the vessel shell (or head) and integrally cast nozzles require examination each interval.

All of the nozzle assemblies identified in Enclosure 2 are full penetration welds to the vessel shell or head.

4.0 Reason for Request

Enclosure 2 provides a complete listing of the applicable Reactor Pressure Vessel (RPV) nozzles.

The proposed alternative provides an acceptable level of quality and safety, and the reduction in inspection scope could result in a dose savings of as much as 10 Person-Rem for the unit over the remainder of the interval.

5.0 Proposed Alternative and Basis for Use

In accordance with 10 CFR 50.55a(a)(3)(i), relief is requested from performing the required examinations on 100 percent of the nozzle assemblies identified in Table 5-1 below (see Enclosure 2 for complete list of RPV Nozzles). As an alternative for all welds and inner radii identified in Table 5-1, the NSPM proposes to examine a minimum of 25 percent of the MNGP nozzle-to-vessel welds and inner radius sections, including at least one nozzle from each system and nominal pipe size, in accordance with ASME Code Case N-702. For the nozzle assemblies identified in Enclosure 2, this would mean that examinations would be required for three of the Recirculation Inlet (N2) nozzles and one from each of the other nozzle groups, as identified below.

Table 5-1
MNGP Summary

Nozzle Group	Nozzles per Group	Minimum Number to be Examined	Number Examined to Date	Year(s) Examined
Recirculation Inlet (N2)	10	3	6	Three in 2005 Two in 2007 One in 2009
Main Steam (N3)	4	1	2	One in 2005 One in 2009
Core Spray (N5)	2	1	1	One in 2005
Closure Head Spare (N6)	2	1	2	One in 2007 One in 2009
Jet Pump Instrumentation (N8)	2	1	2	One in 2005 One in 2009

Therefore, upon authorization, no further nozzles in the applicable groups would remain to be inspected for the remainder of the interval.

ASME Code Case N-702 stipulates that a VT-1 examination may be used in lieu of the volumetric examination for the inner radii (i.e., Item No. B3.100, "Nozzle Inside Radius Section"). NSPM is only requesting to perform volumetric examinations of the applicable nozzle inner radius sections. NSPM is not requesting use of the VT-1 examination provisions included in the code case in lieu of performing volumetric examinations. The NSPM is not currently using ASME Code Case N-648-1 at the MNGP for the identified components for enhanced magnification visual examination and has no plans of using ASME Code Case N-648-1 on those components in the future.

Electric Power Research Institute (EPRI) Technical Report 1003557, "BWRVIP-108: Boiling Water Reactor Vessel and Internals Project Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii," (Reference 1) provides the basis for ASME Code Case N-702. The evaluation found that failure probabilities at the nozzle blend radius region and nozzle-to-vessel shell weld due to a Low Temperature Overpressure event are very low (i.e., $<1 \times 10^{-6}$ for 40 years) with or without inservice inspection. The report concludes that inspection of 25 percent of each nozzle type is technically justified.

This EPRI report was approved by the NRC in a safety evaluation (SE) dated December 19, 2007 (Reference 2). Section 5.0, "Plant Specific Applicability," of the SE indicates that each licensee who plans to request relief from ASME Code, Section XI requirements for RPV nozzle-to-vessel shell welds and nozzle inner radius sections may reference the BWRVIP-108 report as the technical basis for the use of ASME Code Case N-702 as an alternative. The NRC SE further states that each licensee should demonstrate the plant specific applicability criteria from the BWRVIP-108 report to its units in the relief request by showing that all the general and nozzle-specific criteria addressed below are satisfied (i.e., as described in Enclosure 3).

- (1) The maximum RPV heatup/cool-down rate is limited to less than 115°F per hour.

MNGP Technical Specification (TS) 3.4.9, "RCS Pressure and Temperature (P/T) Limits," provides a limiting condition for operation (LCO). The heatup/cool-down rate is referenced in the MNGP operating procedures where applicable such as scrams and start-ups. The maximum heatup / cool-down rate of 100°F per hour is specified within the MNGP Updated Safety Analysis Report in Table 4.1-1, "Reactor Coolant System Data."

For the Recirculation Inlet Nozzles:

(2) $(pr/t) / C_{RPV} < 1.15$, where:

p = RPV normal operating pressure,

r = RPV inner radius,

t = RPV wall thickness, and

$C_{RPV} = 19332$ (i.e., $1000 \text{ psi} \times 110 \text{ inch} / 5.69 \text{ inch}$, based on the BWRVIP-108 recirculation inlet nozzle / RPV finite element method (FEM) model);

(3) $[p(r_o^2 + r_i^2) / (r_o^2 - r_i^2)] / C_{NOZZLE} < 1.15$, where:

p = RPV normal operating pressure,

r_o = nozzle outer radius,

r_i = nozzle inner radius, and

$C_{NOZZLE} = 1637$ [i.e., $1000 \text{ psi} \times (13.988^2 + 6.875^2) / (13.988^2 - 6.875^2)$], based on the BWRVIP-108 recirculation inlet nozzle / RPV FEM model];

For the Recirculation Outlet Nozzles:

(4) $(pr/t) / C_{RPV} < 1.15$, where:

p = RPV normal operating pressure,

r = RPV inner radius,

t = RPV wall thickness, and

$C_{RPV} = 16171$ (i.e., $1000 \text{ psi} \times 113.2 \text{ inch} / 7.0 \text{ inch}$, based on the BWRVIP-108 recirculation outlet nozzle / RPV FEM model);

(5) $[p(r_o^2 + r_i^2) / (r_o^2 - r_i^2)] / C_{NOZZLE} < 1.15$, where:

p = RPV normal operating pressure,

r_o = nozzle outer radius,

r_i = nozzle inner radius, and

$C_{NOZZLE} = 1977$ [i.e., $1000 \text{ psi} \times (22.31^2 + 12.78^2) / (22.31^2 - 12.78^2)$], based on the BWRVIP-108 recirculation outlet nozzle / RPV FEM model].

Note that as stated in the NRC SE, only the recirculation inlet and outlet nozzles need to be checked because the conditional probabilities of failure, P(F|E)s, for the other nozzles are an order of magnitude lower.

Based upon the above information, all requested MNGP RPV nozzle-to-vessel shell full penetration welds and nozzle inner radii sections, with the exception of the Recirculation Outlet Nozzles, meet the general and nozzle-specific criteria in BWRVIP-108.

Therefore, ASME Code Case N-702 is applicable. Use of ASME Code Case N-702 provides an acceptable level of quality and safety in accordance with 10 CFR 50.55a(a)(3)(i) for all requested RPV nozzle-to-vessel shell full penetration welds and nozzle inner radii sections, with the exception of the recirculation outlet nozzles.

6.0 Duration of Proposed Alternative

The proposed alternative will be applied for the remainder of the fourth 10-year interval of the MNGP ISI Program.

7.0 Precedent

The NRC has approved similar requests to adopt an alternative to the ASME Section XI, Table IWB-2500-1 criteria to allow reduced percentage requirements for nozzle-to-vessel weld and inner radius examinations for the Duane Arnold Energy Center (Reference 3), Perry Nuclear Power Plant, Unit 1 (Reference 4); the Dresden Nuclear Power Station, Units 2 and 3 (Reference 5), and the Clinton Power Station, Unit No.1 (Reference 6).

8.0 References

1. BWRVIP to NRC letter submitting EPRI report, "BWR Vessel and Internals Project, Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Inner Radius (BWRVIP-108)," dated November 25, 2002, as supplemented by letters dated July 25, 2006, September 13, 2007, and November 21, 2007.
2. NRC letter to BWRVIP Chairman (R. Libra), "BWRVIP Safety Evaluation of Proprietary EPRI Report, "BWR Vessel and Internals Project, Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Inner Radius (BWRVIP-108)," dated December 19, 2007. (ADAMS Accession No. ML073600374)
3. NRC letter, "Duane Arnold Energy Center – Safety Evaluation for Request for Alternative to Reactor Pressure Vessel Nozzle to Vessel Weld and Inner Radius Examinations (TAC No. MD8193)," dated August 29, 2008. (ADAMS Accession No. ML082040046)
4. NRC letter, "Perry Nuclear Power Plant, Unit No.1 -Request for Relief Related to Inservice Inspection Relief Request IR-054 (TAC No. MD8458)," dated December 29, 2008. (ADAMS Accession No. ML082960729)
5. NRC letter, "Dresden Nuclear Power Station, Units 2 and 3 – Alternative to Nozzle-to-Vessel Weld and Inner Radius Examinations (TAC Nos. ME0882 and ME0883)," dated November 3, 2009. (ADAMS Package Accession No. ML092940436)
6. NRC letter, "Clinton Power Station, Unit No.1 – Proposed Alternative to 10 CFR 50.55a Examination Requirements for Reactor Pressure Vessel Weld Inspections (TAC No. ME0218)," dated August 24, 2009. (ADAMS Accession No. ML092300394)

MONTICELLO NUCLEAR GENERATING PLANT

10 CFR 50.55a REQUEST NO. 16

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
WHICH PROVIDES AN ACCEPTABLE LEVEL OF QUALITY OR SAFETY**

**ALTERNATIVE TO NOZZLE-TO-VESSEL WELD AND
INNER RADIUS EXAMINATIONS**

TABLE OF ASME COMPONENTS AFFECTED

Table of ASME Components Affected

<u>Nozzle ID</u> Nozzle-to-Vessel (NV) Inner Radius (IR)	<u>Category</u> <u>Number</u>	<u>Item</u> <u>Number</u>	<u>System</u>	<u>Nominal</u> <u>Pipe</u> <u>Size</u> <u>(Inches)</u>	<u>Exam Year</u> <u>(PDI)</u>
N-2A (NV)	B-D	B3.90	Recirculation (Inlet)	12	2009
N-2A (IR)	B-D	B3.100	Recirculation (Inlet)	12	2009
N-2B (NV)	B-D	B3.90	Recirculation (Inlet)	12	2007
N-2B (IR)	B-D	B3.100	Recirculation (Inlet)	12	2007
N-2C (NV)	B-D	B3.90	Recirculation (Inlet)	12	---
N-2C (IR)	B-D	B3.100	Recirculation (Inlet)	12	---
N-2D (NV)	B-D	B3.90	Recirculation (Inlet)	12	2005
N-2D (IR)	B-D	B3.100	Recirculation (Inlet)	12	2005
N-2E (NV)	B-D	B3.90	Recirculation (Inlet)	12	2005
N-2E (IR)	B-D	B3.100	Recirculation (Inlet)	12	2005
N-2F (NV)	B-D	B3.90	Recirculation (Inlet)	12	---
N-2F (IR)	B-D	B3.100	Recirculation (Inlet)	12	---
N-2G (NV)	B-D	B3.90	Recirculation (Inlet)	12	2007
N-2G (IR)	B-D	B3.100	Recirculation (Inlet)	12	2007

Table of ASME Components Affected

<u>Nozzle ID</u> Nozzle-to-Vessel (NV) Inner Radius (IR)	<u>Category</u> <u>Number</u>	<u>Item</u> <u>Number</u>	<u>System</u>	<u>Nominal</u> <u>Pipe</u> <u>Size</u> <u>(Inches)</u>	<u>Exam Year</u> <u>(PDI)</u>
N-2H (NV)	B-D	B3.90	Recirculation (Inlet)	12	---
N-2H (IR)	B-D	B3.100	Recirculation (Inlet)	12	---
N-2J (NV)	B-D	B3.90	Recirculation (Inlet)	12	2005
N-2J (IR)	B-D	B3.100	Recirculation (Inlet)	12	2005
N-2K (NV)	B-D	B3.90	Recirculation (Inlet)	12	---
N-2K (IR)	B-D	B3.100	Recirculation (Inlet)	12	---
N-3A (NV)	B-D	B3.90	Main Steam	18	2005
N-3A (IR)	B-D	B3.100	Main Steam	18	2005
N-3B (NV)	B-D	B3.90	Main Steam	18	---
N-3B (IR)	B-D	B3.100	Main Steam	18	---
N-3C (NV)	B-D	B3.90	Main Steam	18	2009
N-3C (IR)	B-D	B3.100	Main Steam	18	2009
N-3D (NV)	B-D	B3.90	Main Steam	18	---
N-3D (IR)	B-D	B3.100	Main Steam	18	---
N-5A (NV)	B-D	B3.90	Core Spray	8	---
N-5A (IR)	B-D	B3.100	Core Spray	8	---
N-5B (NV)	B-D	B3.90	Core Spray	8	2005
N-5B (IR)	B-D	B3.100	Core Spray	6	2005

Table of ASME Components Affected

<u>Nozzle ID</u> Nozzle-to-Vessel (NV) Inner Radius (IR)	<u>Category</u> <u>Number</u>	<u>Item</u> <u>Number</u>	<u>System</u>	<u>Nominal</u> <u>Pipe</u> <u>Size</u> <u>(Inches)</u>	<u>Exam Year</u> <u>(PDI)</u>
N-6A (NV)	B-D	B3.90	Closure Head Spare	6	2007
N-6A (IR)	B-D	B3.100	Closure Head Spare	6	2007
N-6B (NV)	B-D	B3.90	Closure Head Spare	6	2009
N-6B (IR)	B-D	B3.100	Closure Head Spare	6	2009
N-8A (NV)	B-D	B3.90	Jet Pump Instrumentation	4	2005
N-8A (IR)	B-D	B3.100	Jet Pump Instrumentation	4	2005
N-8B (NV)	B-D	B3.90	Jet Pump Instrumentation	4	2009
N-8B (IR)	B-D	B3.100	Jet Pump Instrumentation	4	2009

MONTICELLO NUCLEAR GENERATING PLANT

10 CFR 50.55a REQUEST NO. 16

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
WHICH PROVIDES AN ACCEPTABLE LEVEL OF QUALITY OR SAFETY**

**ALTERNATIVE TO NOZZLE-TO-VESSEL WELD AND
INNER RADIUS EXAMINATIONS**

**VERIFICATION OF PLANT SPECIFIC NOZZLE APPLICABILITY TO APPLY
CODE CASE N-702 IN ACCORDANCE WITH BWRVIP-108**

Verification of Plant Specific Nozzle Applicability to Apply Code Case N-702 to the MNGP in Accordance With BWRVIP-108

(Criteria 1) Maximum RPV heatup/cool-down rate limited to less than 115°F per hour.

- The Monticello Updated Safety Analysis Report indicates a maximum heatup/cool-down rate of 100°F per hour. This heatup/cool-down rate is referenced in the MNGP operating procedures, where applicable, such as scrams and start-ups.
- MNGP Technical Specification 3.4.9, "RCS Pressure and Temperature (P/T) Limits," provides a limiting condition for operation (LCO).

Values for Monticello Recirculation Inlet and Outlet Nozzles:

Monticello specific values:

p = RPV normal operating pressure = 1025 psig
r = RPV inner radius = 102.5 inches
t = RPV wall thickness = 5.0625 inches
r_o = Recirculation inlet nozzle outer radius = 14.1875 inches
r_i = Recirculation inlet nozzle inner radius = 7.0625 inches
r_o = Recirculation outlet nozzle outer radius = 24.375 inches
r_i = Recirculation outlet nozzle inner radius = 13.0625 inches

BWRVIP-108 Constants:

C_{RPV} (Recirculation Inlet Nozzles) = 19332
C_{NOZZLE} (Recirculation Inlet Nozzles) = 1637
C_{RPV} (Recirculation Outlet Nozzles) = 16171
C_{NOZZLE} (Recirculation Outlet Nozzles) = 1977

For the Recirculation Inlet Nozzles:

(Criteria 2) $(pr/t) / C_{RPV} < 1.15$

$$[(1025 \times 102.5) / 5.0625] / 19332 = \mathbf{1.07351} < 1.15$$

(Criteria 3) $[p(r_o^2 + r_i^2) / (r_o^2 - r_i^2)] / C_{NOZZLE} < 1.15$

$$[1025 (14.1875^2 + 7.0625^2) / (14.1875^2 - 7.0625^2)] / 1637 = \mathbf{1.03870} < 1.15$$

For the Recirculation Outlet Nozzles:

(Criteria 4) $(pr/t) / C_{RPV} < 1.15$

$$[(1025 \times 102.5) / 5.0625] / 16171 = \mathbf{1.28335} > 1.15 \text{ (does not pass)}$$

(Criteria 5) $[p(r_o^2 + r_i^2) / (r_o^2 - r_i^2)] / C_{NOZZLE} < 1.15$

$$[1025 (24.375^2 + 13.0625^2) / (24.375^2 - 13.0625^2)] / 1977 = \mathbf{0.93623} < 1.15$$

MONTICELLO NUCLEAR GENERATING PLANT

10 CFR 50.55a REQUEST NO. 17

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
WHICH PROVIDES AN ACCEPTABLE LEVEL OF QUALITY OR SAFETY**

**EXTENSION OF PERMANENT RELIEF FROM VOLUMETRIC EXAMINATION OF
REACTOR PRESSURE VESSEL CIRCUMFERENTIAL SHELL WELDS FOR THE
RENEWED OPERATING LICENSE TERM**

10 CFR 50.55a Request No. 17
Proposed Alternative In Accordance With 10 CFR 50.55a(a)(3)(i)

Extension of Permanent Relief from Volumetric Examination of Reactor Pressure Vessel Circumferential Shell Welds for the Renewed Operating License Term

1.0 ASME Code Component(s) Affected

All of the affected reactor pressure vessel (RPV) circumferential shell welds are American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Class 1.

Weld Number	Description	Examination Category	Item No.
VCBB-1	Circumferential Shell to Bottom Head Weld	B-A	B1.11
VCBA-2	Circumferential Shell to Shell Weld	B-A	B1.11
VCBB-3	Circumferential Shell to Shell Weld	B-A	B1.11
VCBB-4	Circumferential Shell to Shell Weld	B-A	B1.11

2.0 Applicable ASME Code Edition and Addenda

The Monticello Nuclear Generating Plant (MNGP) is currently in the fourth 10-year Inservice Inspection (ISI) Program interval and is committed to the ASME Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," (ASME Section XI), 1995 Edition through 1996 Addenda. Additionally, for ultrasonic examinations, ASME Section XI, Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," of the 1995 Edition through 1996 Addenda is implemented, as required and modified by 10 CFR 50.55a.

3.0 Applicable Code Requirement

Table IWB-2500-1, "Examination Category B-A, Pressure Retaining Welds in Reactor Vessel"

Examination Category B-A, Item Number B1.11, Circumferential Shell Welds, requires volumetric examination of all circumferential shell welds each interval.

4.0 Reason for the Request

On July 27, 2001 (Reference 1) the MNGP received U.S. Nuclear Regulatory Commission (NRC) authorization for a technical alternative that eliminated performance of RPV circumferential shell weld examinations for the duration of the full-term operating license that ends on September 8, 2010. The primary basis was an analysis in accordance with Boiling Water Reactor Vessel and Internals Project (BWRVIP) report, BWRVIP-05, "BWR Reactor Pressure Vessel Shell Weld Inspection Recommendations," (Reference 2) and NRC guidance, which indicated that the limiting conditional failure probability for the circumferential shell welds would be satisfied through the expiration of the current full-term operating license.

Anticipated changes in metallurgical conditions expected over the renewed license period required analysis and further evaluation to demonstrate the continued acceptability for not performing volumetric examinations of these RPV circumferential shell welds over the additional renewed operating license term of 20-years.⁽¹⁾ The analysis was based on BWRVIP-05 and BWRVIP-74, "BWR Vessel and Internals Project, BWR Reactor Pressure Vessel Inspection and Flaw Evaluation Guidelines for License Renewal" (Reference 3). Information on the projected acceptability for continuing permanent deferral of volumetric examinations on RPV circumferential shell welds was provided in Section 4.2.6 of the License Renewal Application (LRA) and within responses to NRC staff requests for additional information.

On November 8, 2006, the NRC issued Renewed Facility Operating License DPR-22 for the MNGP, with an expiration date of midnight on September 8, 2030 (Reference 4). Accompanying the renewed license was NUREG-1865, "Safety Evaluation Report Related to the License Renewal of the Monticello Nuclear Generating Plant" (Reference 5), which provides a summary of the safety basis for the acceptability of various aspects of the license renewal. NUREG-1865 Section 4.2.6, "RPV Circumferential Weld Examination Relief," discusses specifics of the NRC evaluation for this area and indicated the continued acceptability of continuing application of this alternative for the renewed license period of operation. Subsection 4.2.6.4, "Conclusion," of the NUREG states:

The staff concluded that the applicant provided an acceptable demonstration, pursuant to 10 CFR 54.21(c)(1)(ii), that the analyses of the RPV circumferential weld examination relief have been projected to the end of the period of extended operation. The staff also concluded that the USAR [Updated Safety Analysis Report] supplement contains an

1. Reference 7 indicates that 54 Effective Full Power Years is the realistically expected value at the end of the original full-term (40 year) plus the renewed (20 year) operating license terms.

appropriate summary description of this TLAA [Time-Limited Aging Analysis] evaluation, sufficient to satisfy the requirements of 10 CFR 54.21(d).

Section 4.2.6.2, "Staff Evaluation," and Appendix A to NUREG-1865, indicate that while relief from performance of RPV circumferential shell weld examinations has been determined acceptable from a license renewal technical standpoint, a separate 10 CFR 50.55a (relief) request is necessary to authorize this alternative for the term of the renewed operating license. Accordingly, this 10 CFR 50.55a request is provided to meet the MNGP license renewal commitment to resubmit a request for authorization of permanent relief from the volumetric examination of RPV circumferential shell welds through the 20-year renewed operating license term. The Northern States Power Company – Minnesota (NSPM) is requesting this alternative in accordance with 10 CFR 50.55a(a)(3)(i) on the basis that this proposed alternative provides an acceptable level of quality and safety.

5.0 Proposed Alternative and Basis for Use

Proposed Alternative

The projected failure frequency of the subject welds at the MNGP has been determined to be sufficiently low for the duration of the renewed operating license term to justify eliminating the examinations required by 10 CFR 50.55a(g) in accordance with ASME Code Section XI, Table IWB-2500-1, Examination Category B-A, Item No. B1.11, Circumferential Shell Welds.

Pursuant to 10 CFR 50.55a(a)(3)(i), and consistent with guidance provided in NRC 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" (Reference 6), and the final license renewal safety evaluation report for proprietary report, BWRVIP-74, "BWR Vessel and Internals Project, BWR Reactor Pressure Vessel Inspection and Flaw Evaluation Guidelines for License Renewal," (Reference 7), NSPM proposes the following alternate provisions for the subject weld examinations for the 20-year renewed operating license term.

- The examination requirements of ASME Code Section XI, Table IWB-2500-1, Examination Category B-A, Item No B1.12, for the RPV longitudinal shell welds, also known as vertical or axial welds, will be performed as required to the extent possible.

- As a proposed alternative to the requirements of ASME Code Item No. B1.11 for the RPV circumferential shell welds, the longitudinal weld examinations for ASME Code Item No. B1.12 will include examination on the segment of RPV circumferential welds VCBA-2, VCBB-3, and VCBB-4 that intersects with the longitudinal welds, or approximately 2 to 3 percent of the RPV shell circumferential welds.
- As a proposed alternative to the requirements of ASME Code Item No. B1.11 for RPV circumferential weld VCBB-1, NSPM will perform volumetric examination on approximately 2 to 3 percent of the weld at an accessible location, rather than at the associated longitudinal weld intersections as proposed for the previously mentioned circumferential welds.
- The proposed examination alternative for the RPV circumferential shell welds may be performed from either the internal inside diameter (ID) surface, or from the external outside diameter (OD) surface of the RPV as determined by the MNGP.
- Examination of the remaining portions of the RPV circumferential shell welds will be permanently deferred through the renewed operating license term.
- Examination will be completed in accordance with the ASME Section XI, Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," for the interval's applicable Code of Record edition and addenda as required and modified by 10 CFR 50.55a, "Codes and standards."

Basis for Use

The BWRVIP-74 report provides generic guidelines for the appropriate inspection and flaw evaluation recommendations to assure safety function integrity of reactor pressure vessel components continuing from the initial operating license term through the renewed operating license term. The NRC final license renewal safety evaluation for BWRVIP-74 concluded that Appendix E of the July 28, 1998, NRC safety evaluation for BWRVIP-05 conservatively evaluated BWR reactor pressure vessels to 64 Effective Full Power Years (EFPY) which is 10 EFPY greater than what is realistically expected at the end of an additional 20-year license renewal period.

The NRC staff analysis provides a technical basis for an alternative from the ASME Code Section XI requirements for the volumetric examination of RPV circumferential shell welds for the license renewal period. The associated safety evaluation stated that to obtain relief (similar to the conditions promulgated in Generic Letter 98-05 (Reference 6)) each licensee would have to demonstrate that:

- (1) At the end of the license renewal period, the circumferential welds will satisfy the limiting conditional failure frequency for circumferential welds in Appendix E of the NRC staff's Final Safety Evaluation Report (FSER) for BWRVIP-05, and
- (2) That they have implemented operator training and established procedures that limit the frequency of cold over-pressure events to the amount specified in the NRC staff's FSER for BWRVIP-05.

The following discussion describes how each of these criteria will be met during the renewed operating license period.

Demonstrate that Circumferential Welds Will Satisfy the Limiting Conditional Failure Frequency at the End of the License Renewal Period

The following discussion is taken from the staff evaluation⁽²⁾ under Section 4.2.6, "RPV Circumferential Weld Examination Relief," within NUREG-1865, the MNGP license renewal safety evaluation report (SER), and summarizes the basis for use and the acceptability of the proposed alternative.

The technical basis for relief is discussed in the staff's final SER concerning the BWRVIP-05 report, "BWR Vessel and Internals Project (BWRVIP), BWR Reactor Pressure Vessel Weld Inspection Requirements," enclosed in the letter dated July 28, 1998, from Mr. G.C. Laines, NRC, to Mr. C. Terry, the BWRVIP Chairman. In this letter, the staff concluded that, because the failure frequency for circumferential welds in BWR plants is significantly below the criterion specified in RG [Regulatory Guide] 1.154, "Format and Content of Plant-Specific Pressurized Thermal Shock Safety Analysis Reports for Pressurized Water Reactors," and below the core damage frequency of any BWR plant, continued inspection of the RPV circumferential welds will result in a negligible decrease in an already acceptably low rate of RPV failure; therefore, elimination of the inservice inspection (ISI) for RPV circumferential welds is justified. The staff's letter indicated that BWR

2. See Subsection 4.2.6.2, "Staff Evaluation" of NUREG-1865.

applicants may request relief from 10 CFR 50.55a(g) ISI requirements for volumetric examination of circumferential RPV welds by demonstrating that (1) through the expiration of the license period, the circumferential welds satisfy the limiting conditional failure probability for circumferential welds in the NRC staff's July 28, 1998 evaluation, and (2) implementation of operator training and established procedures that limit the frequency of cold overpressure events to the frequency specified in the staff's SER. The letter indicated that the requirements for inspection of circumferential RPV welds during an additional 20-year license renewal period will be reassessed, on a plant-specific basis, as part of any BWR LRA [license renewal application]; therefore, the applicant must request relief from inspection of circumferential welds during the license renewal period, pursuant to 10 CFR 50.55a.

Section A.4.5 of the BWRVIP-74 report indicates that the staff's SER of the BWRVIP-05 report conservatively evaluated the BWR RPVs to 64 EFPY [effective full power years], which is 10 EFPY greater than realistically expected for the end of the license renewal period. In the July 28, 1998, SER, the staff used the mean [reference temperature of nil-ductility transition] RT_{NDT} value for materials to evaluate failure probability of BWR circumferential welds at 32 and 64 EFPY. The neutron fluence at the clad-weld (inner) interface was used for this evaluation.

Since the staff analysis discussed in the BWRVIP-74 report is generic, the applicant submitted plant-specific information to demonstrate that the MNGP RPV beltline materials meet the criteria specified in the report. To demonstrate that the MNGP RPV has not become embrittled beyond the basis for the relief, the applicant, in LRA Table 4.2.6.1, compared 54 EFPY material data for the limiting MNGP circumferential weld with that of the 64 EFPY reference case in Appendix E to the staff's SER on the BWRVIP-05 report.

Table 4.2.6-1 on the following page, taken from Subsection 4.2.6.2, "Staff Evaluation," of NUREG-1865, has been modified by addition of a fourth column which shows the effects of a 120% increase in thermal power⁽³⁾⁽⁴⁾ from the original licensed thermal power (OLTP) on the RPV circumferential weld properties at the end of the 20-year renewed operating license period.

3. The current licensed reactor thermal power (CLTP) is 1775 MWt. The maximum projected power level of 2004 MWt is 120% of the OLTP of 1670 MWt.
4. A power increase request (Reference 13) is under review, but on indefinite hold, pending staff resolution to several industry issues. The values in the fourth column correspond to those presented in Table 2.1-2 in Enclosure 5 of Reference 13.

Table 4.2.6-1
Effects of Irradiation on RPV Circumferential Weld Properties for MNGP

Value	Chicago Bridge and Iron (CB&I) 64 EFPY	MNGP 54 EFPY	MNGP 54 EFPY (120% OLTP)
Cu (%)	0.10	0.10	0.10
Ni (%)	0.99	0.99	0.99
CF [Chemistry Factor]	134.9	138.5	138.5
Fluence x 10 ¹⁹ (n/cm ²) [at clad/weld interface]	1.02	0.52	0.64
ΔRT_{NDT} (°F)	135.6	113	121
RT_{NDT} (°F)	- 65	- 65.6	- 65.6
Mean RT_{NDT} (°F)	70.6	47.4	55.8
Probability of a failure event (NRC)	1.78×10^{-5}	(1)	(1)

Notes: 1: If the plant-specific mean ΔRT_{NDT} is less than the mean ΔRT_{NDT} associated with the limiting case study, the staff concludes that the probability of failure for the plant-specific circumferential weld under review will be less than the conditional probability of failure value for the limiting circumferential weld in the limiting case study.

Analysis indicates that assuming 120% of OLTP through the renewed operating license term, that the Fluence, ΔRT_{NDT} and Mean RT_{NDT} all increase but that the results (see fourth column) are still well within the CB&I 64 EFPY NRC staff acceptance criteria (second column above).

The Monticello Updated Safety Analysis Report [USAR], Appendix K, Renewed Operating License – USAR Supplement, provides background and summarizes the bases and results of the license renewal analyses and evaluations. The USAR section on RPV circumferential weld examination relief discusses and compares the MNGP limiting weld parameters to those used in the NRC analysis. Under the Disposition section it states:

For MNGP, the chemistry values are the same as those used in the NRC analysis, however, the chemistry factor is higher due to an adjustment to reflect the results from two surveillance capsules. The value of fluence is lower than that used in the NRC analysis. As a result, the shift in reference temperature is lower than the 64 EFPY shift from the NRC analysis. In addition, the unirradiated reference temperature is essentially the same. The combination of unirradiated reference temperature ($RT_{NDT}(U)$) and shift (ΔRT_{NDT} w/o margin) yields an Adjusted Reference Temperature (ART) that is lower than the NRC mean analysis value.

Therefore, the RPV shell weld embrittlement due to fluence has a negligible effect on the probabilities of RPV shell weld failure. The Mean RT_{NDT} value at 54 EFPY is bounded by the 64 EFPY Mean RT_{NDT} provided by the NRC. Although a conditional failure probability has not been calculated, the fact that the MNGP values at the end of license are less than the 64 EFPY value provided by the NRC leads to the conclusion that the MNGP RPV conditional failure probability is bounded by the NRC analysis.

Based on analysis assuming 120% of the OLTP through the renewed license term, the Mean RT_{NDT} increases to 55.8°F, but remains bounded by the 64 EFPY Mean RT_{NDT} staff acceptance criteria of 70.6°F for CB&I vessels. The fact that this value at the end of the renewed operating license term for 120% of OLTP conditions is less than the 64 EFPY staff acceptance criteria demonstrates that the MNGP conditional failure probability remains bounded by the NRC analysis. This conclusion is supported by the following discussion from Section 4.2.6.2, "Staff Evaluation," of NUREG-1865 which discusses the effects of irradiation on RPV circumferential shell weld properties for the MNGP for the renewed operating license term. The NUREG states:

The MNGP material data included amounts of copper and nickel, chemistry factor, the neutron fluence, ΔRT_{NDT} , initial RT_{NDT} , and mean RT_{NDT} of the limiting circumferential weld at the end of the renewal period. The staff has verified the data for the copper and nickel contents and the initial RT_{NDT} values for the MNGP circumferential beltline weld material by comparing them with the corresponding data in RVID [Reactor Vessel Integrity Database]. The 54 EFPY mean RT_{NDT} value for the MNGP circumferential beltline weld is 47.4°F. The staff checked the applicant's calculations for the 54 EFPY mean RT_{NDT} values for the limiting MNGP circumferential welds using the data presented in LRA Table 4.2.6.1 and found them to be accurate. This 54 EFPY mean RT_{NDT} value for MNGP is bounded by the 64 EFPY mean RT_{NDT} value of 70.6°F used by the NRC to determine conditional failure probability of a circumferential weld in a Chicago Bridge and Iron (CB&I) fabricated RPV. The 64 EFPY mean RT_{NDT} value from the staff SER dated July 28, 1998, is for a CB&I weld because CB&I welded the circumferential welds in the [MNGP] RPV. Because the 54 EFPY mean RT_{NDT} value is less than the 64 EFPY value from the staff SER dated July 28, 1998, the staff concluded that the NRC analysis bounds the MNGP RPV conditional failure probability.

Since the 54 EFPY analysis results, assuming 120% of OLTP, increase for the Fluence, ΔRT_{NDT} and Mean RT_{NDT} at the end of the renewed operating license term but are still below the 64 EFPY acceptance criteria specified in the NRC

staff SER dated July 28, 1998, it is concluded that the NRC analysis bounds the MNGP RPV conditional failure probability for these parameters at the end of the renewed operating license term.

Implement Operator Training and Establish Procedures that Limit the Frequency of Cold Over-Pressure Events to the Amount Specified in the NRC Staff Safety Evaluation for BWRVIP-05

Section 4.2.6.2, "Staff Evaluation, of NUREG-1865 also indicates that to be acceptable the proposed alternative has to include "implementation of operator training and established procedures that limit the frequency of cold overpressure events to the frequency specified in the staff's SER." The NSPM committed to, and revised and upgraded operator training and plant procedures (References 8 and 9) to minimize the frequency for potential cold overpressure events (consistent with the NRC specified frequency) in conjunction with receiving the current relief (Reference 1) from performing RPV circumferential shell weld examinations for the duration of the full-term operating license.

Going forward, NSPM proposes to continue these commitments to limit the potential for cold overpressure events for the renewed operating license term. Section 4.2.6.2, "Staff Evaluation," of NUREG-1865 states:

The applicant stated that the procedures and training used to limit cold overpressure events will be the same as those approved by the NRC when MNGP requested relief for the current license period. A request for relief during the period of extended operation will be submitted to the NRC before the period of extended operation.

Submittal of this 10 CFR 50.55a request satisfies the following commitment, referred to as Item No. 5 in Appendix A to NUREG-1865, and serves to enforce NSPM's ongoing commitment to implement and maintain operator training and procedural content to preclude cold overpressure events, as prescribed in our present authorized relief for the full-term operating license.

- The procedures and training used to limit RPV cold overpressure events will be the same as those approved by the NRC when MNGP requested approval of the BWRVIP-05 technical alternative for the term of the current operating license. A request for extension for the 60-year extended operating period will be submitted to the NRC before the period of extended operation.

NSPM has reviewed the above conclusions and has confirmed they are valid for the renewed operating license term of operation. Therefore, the proposed alternative as discussed herein, and as previously evaluated in the NRC safety evaluation for the MNGP for the full-term operating license (Reference 1), provides an acceptable level of quality and safety for the term of the renewed operating license.

6.0 Duration of Proposed Alternative

The proposed alternative will be applied for the 20-year term of the renewed operating license.

7.0 Precedent

The NRC has authorized similar requests to adopt an alternative to the ASME Section XI, Table IWB-2500-1, Examination Category B-A, Item. No. B1.11 criteria for permanent relief from the volumetric examination of RPV circumferential shell welds for the Dresden Nuclear Power Station, Units 2 and 3 and the Quad Cities Nuclear Power Station, Units 1 and 2 (Reference 10), the Nine Mile Point Nuclear Station, Unit No. 2 (Reference 11), and the Oyster Creek Nuclear Generating Station (Reference 12).

8.0 REFERENCES

1. NRC letter, "Monticello Nuclear Generating Plant – Evaluation of Relief Request Number 12 for the Third 10-Year Interval Inservice Inspection Program (TAC No. MB0261)," dated July 27, 2001.
2. Electric Power Research Institute (EPRI) Report TR-105697, "BWR Reactor Pressure Vessel Shell Weld Inspection Recommendations (BWRVIP-05)," dated September 1995.
3. BWRVIP-74-A Report, "BWR Vessel and Internals Project, BWR Reactor Pressure Vessel Inspection and Flaw Evaluation Guidelines for License Renewal," dated June 2003.
4. NRC letter, "Issuance of Renewed Facility Operating License No. DPR-22 for Monticello Nuclear Generating Plant," dated November 8, 2006.
5. NUREG-1865, "Safety Evaluation Report Related to the License Renewal of the Monticello Nuclear Generating Plant."
6. NRC 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," dated November 10, 1998.
7. NRC letter, "Acceptance for Referencing of EPRI Proprietary Report TR-113596, "BWR Vessel and Internals Project, BWR Reactor Pressure Vessel Inspection and Flaw Evaluation Guidelines (BWRVIP-74)," and Appendix A, "Demonstration of Compliance with the Technical Information Requirements of the License Renewal Rule (10 CFR 54.21)." dated October 18, 2001.
8. NMC letter, "Request for Relief No. 12 for the Third 10-Year Interval Inservice Inspection Program," dated October 10, 2000.
9. NMC letter, "Response to NRC Request for Additional Information for Request for Relief No. 12 for the Third 10-Year Interval Inservice Inspection Program," dated May 3, 2001.
10. NRC letter, "Dresden Nuclear Power Station, Units 2 and 3 and Quad Cities Nuclear Power Station, Units 1 and 2 – Authorization for Proposed Alternative Reactor Pressure Vessel Circumferential Shell Weld Examinations (TAC Nos.

MC2190, MC2191, MC2192 and MC2193),” dated March 23, 2005. (ADAMS Package Accession No. ML050620359)

11. NRC letter, “Nine Mile Point Nuclear Station, Unit No. 2 – Authorization Under 10 CFR 50.55a(a)(3)(i) for Proposed Alternative Reactor Pressure Vessel Circumferential Shell Weld Volumetric Examinations (TAC No. MD3696),” dated November 5, 2007. (ADAMS Accession No. ML072830047)
12. NRC letter, “Oyster Creek Nuclear Generating Station – Relief Request for Alternative Examination for Reactor Pressure Vessel Circumferential Shell Welds (TAC No. ME0890),” dated September 15, 2009. (ADAMS Accession No. ML092520039)
13. NSPM letter, “License Amendment Request: Extended Power Uprate (TAC MD9990),” letter number L-MT-08-052, dated November 5, 2008.

MONTICELLO NUCLEAR GENERATING PLANT

10 CFR 50.55a REQUEST NO. 18

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
WHICH PROVIDES AN ACCEPTABLE LEVEL OF QUALITY OR SAFETY**

**ALTERNATIVE TO APPLY ASME CODE CASE N-705 TO THE
STANDBY LIQUID CONTROL SYSTEM TANK**

10 CFR 50.55a Request No. 18

Proposed Alternative in Accordance With 10 CFR 50.55a(a)(3)(i) Which Provides an Acceptable Level of Quality or Safety

Alternative to Apply ASME Code Case N-705 to the Standby Liquid Control System Tank

1.0 ASME Code Component(s) Affected

Code Class: 2

Component Numbers: T-200

Examination Category: C-A

Description: Alternative to ASME Section XI,
Section IWC-3120 for the Standby Liquid
Control (SLC) System Tank

2.0 Applicable ASME Code Edition and Addenda

The Monticello Nuclear Generating Plant (MNGP) is currently in the fourth 10-year Inservice Inspection (ISI) Program interval and is committed to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," (ASME Section XI), 1995 Edition through 1996 Addenda. Additionally, for ultrasonic examinations, ASME Section XI, Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," of the 1995 Edition through 1996 Addenda is implemented, as required and modified by 10 CFR 50.55a.

3.0 Applicable Code Requirement

Section IWC-3120, "Inservice Volumetric and Surface Exams"

4.0 Reason for Request

While performing a periodic system walkdown, the system engineer identified sodium pentaborate crystallization at the bottom of the SLC Tank on the exposed lip of the tank base. Subsequent investigation identified degradation, i.e., indications of radial cracking in the SLC Tank bottom plate. There was also visible evidence of minute leakage at the tank base. The alternative proposed is to apply the evaluation criteria included in ASME Code Case N-705, "Evaluation

Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks, Section XI, Division 1." The proposed alternative provides an acceptable level of quality and safety.

5.0 Proposed Alternative and Basis for Use

In accordance with 10 CFR 50.55a(a)(3)(i), relief is requested by the Northern States Power Company – Minnesota (NSPM) from ASME Section XI, IWC-3120, "Inservice Volumetric and Surface Exams," to implement an alternative that allows acceptance of degradation in the SLC Tank, an ASME Class 2 atmospheric pressure component, in accordance with the guidance of ASME Code Case N-705.

ASME Code Case N-705 indicates that alternatives to the requirements of IWC-3120, as specified therein, may be used to accept degradation, including through-wall degradation, in a moderate energy ASME Code Class 2 tank for a limited time not to exceed the evaluation period, determined as defined in the code case.

NSPM requests relief from IWC-3120, to allow the use of an alternate methodology to evaluate and accept through wall flaws in moderate energy Class 2 tanks. This alternative allows characterization of flaws in accordance with the applicable sections of ASME Code Case N-705, e.g., Section 2.2, "Degradation Characterization," and Section 2.4, "Bounding Flaw Evaluation," to estimate the degradation in inaccessible or uninspectable region(s) of the SLC Tank.

Section 6, "Subsequent Examinations and Surveillance," of the code case requires: 1) daily monitoring for tank leakage, and 2) examination of the degradation to verify the predicted growth at one-half of the allowed operating time (unless the time at which the degradation reaches the allowable flaw size is determined to be twice the time to reach the end of the evaluation period). Monitoring of SLC Tank leakage each day in accordance with the operator rounds is proposed by NSPM to meet the first code case requirement (see Section 7.0 herein). NSPM has determined, based upon a flaw evaluation performed by Structural Integrity Associates, Inc. (see Enclosure 2), that the point in time where the limiting degradation reaches the allowable flaw size is far greater than twice the duration of the evaluation period,⁽¹⁾ 26 months, and hence examination before the March 2011 refueling outage is unnecessary. Therefore, this alternate methodology, as permitted in ASME Code Case N-705, would allow for a planned repair of the SLC Tank during the upcoming refueling outage in 2011, vice an unnecessary emergent shutdown and repair.

1. The evaluation period is the time to the next refueling outage – thirteen months.

NRC draft Regulatory Guide DG-1192, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," dated June 2009, identifies Code Case N-705 as one of the cases determined as an acceptable alternative to Section XI, for unconditional usage as indicated by its inclusion in Table 1, "Acceptable Section XI Code Cases," to this draft regulatory guide. A proposed rule revising 10 CFR 50.55a⁽²⁾ to include the next revision of Regulatory Guide 1.147, i.e., Revision 16, which includes this code case, has been published in the Federal Register, and is awaiting publication as a Final Rule.

Use of ASME Code Case N-705 provides an acceptable level of quality and safety in accordance with 10 CFR 50.55a(a)(3)(i) for the evaluation and temporary acceptance of the degradation of the SLC Tank.

6.0 Duration of Proposed Alternative

NSPM is requesting authorization for use of this alternative through the next refueling outage, currently scheduled to begin in March 2011.

7.0 Interim Actions

Compliance with ASME Code Case N-705, Section 6, "Subsequent Examinations and Surveillance," requires the following action to be implemented.

- NSPM will restore the Standby Liquid Control Tank in accordance with Section XI of the ASME Code by startup from the next refueling outage, currently scheduled to begin in March 2011.
- Monitoring of Standby Liquid Control Tank leakage each day will be performed in accordance with Procedure 0000-J, "Operations Daily Log -- Part J, Outplant" rounds until the tank is removed from service.

2. Federal Register: June 2, 2009 (Volume 74, Number 104, Proposed Rules), "Incorporation by Reference of Regulatory Guide 1.84, Revision 35, and Regulatory Guide 1.147, Revision 16, Into 10 CFR 50.55a," pages 26303-26310.

MONTICELLO NUCLEAR GENERATING PLANT

10 CFR 50.55a REQUEST NO. 18

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
WHICH PROVIDES AN ACCEPTABLE LEVEL OF QUALITY OR SAFETY**

**ALTERNATIVE TO APPLY ASME CODE CASE N-705 TO THE
STANDBY LIQUID CONTROL SYSTEM TANK**

STRUCTURAL INTEGRITY ASSOCIATES, INC.

FLAW EVALUATION FOR THE MONTICELLO STANDBY LIQUID CONTROL TANK

SUMMARY REPORT

MARCH 24, 2010

March 24, 2010
Report No. 1000413.401.R0
Quality Program: Nuclear Commercial

Mr. Jim Bridgeman
Xcel Energy
Monticello Nuclear Power Plant
2807 W COUNTY ROAD 75
Monticello, MN 55362-9601

Subject: Flaw Evaluation for Monticello Standby Liquid Control Tank

References:

1. ASME Boiler and Pressure Vessel Code, Section XI, Division 1, Code Case N-705, "Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks."
2. Xcel Energy, Monticello Nuclear Generating Plant, SBLC Tank T-200 Indication Worksheet.

Dear Jim:

This summary report serves as a technical basis to support continued operation of the Monticello Standby Liquid Control (SBLC) tank until the next refueling outage under the provisions of ASME Code Case N-705 [1].

The results summarized herein are based on verified scoping analyses which utilize many conservative assumptions. The conclusions of acceptability for continued operation are not expected to change with the final analyses.

INTRODUCTION

Leakage was detected at the SBLC tank during a walkdown. Subsequent inspections revealed that the leakage was emanating from a through-wall flaw in the base plate of the tank. The flaw extends radially across the base plate and appears to continue beneath the fillet weld on the outside of the cylindrical shell [2]. In addition, 16 other indications were found along the circumference of the base plate. However, only one flaw was completely through the thickness

of the base plate. It should also be noted that only five of the 17 indications span the width across the external face of the base plate. No indication was observed in the cylindrical shell.

Since the through-wall flaw at the location of the leakage extends past the attachment fillet weld, it was assumed that the flaw could be both in the base plate and also in the cylindrical shell attachment. Thus, in addition to evaluating the flaw in the base plate, a postulated circumferential flaw in the cylindrical shell is evaluated also.

TECHNICAL APPROACH

The evaluation was performed in accordance with the structural requirements of ASME Section XI Code Case N-705 which has been approved by ASME but currently not approved in regulatory Guide 1.147. Allowable through-wall flaw sizes are calculated for the observed indications in the base plate and a postulated circumferential flaw in the cylindrical shell of the tank. In addition, a stress corrosion crack growth evaluation is performed to ensure that the flaws would not reach the allowable flaw size within the next operating period.

RESULTS

Allowable Flaw Evaluation

The bounding indication in the base plate is modeled as a through-wall flaw extending radially from the OD of the circular plate towards the center of the tank. The hoop stresses in the tank shell are conservatively applied to the base plate. Using the provisions of the structural requirements in Code Case N-705, the allowable flaw was calculated to be 85 inches.

For the tank shell, the evaluation was performed assuming a circumferential planar through-flaw in the cylindrical shell. Using the provisions of the structural requirements in Code case N-705, the allowable circumferential flaw in the tank shell was calculated to be 5.6 inches.

Stress Corrosion Crack Growth Analysis

A flaw growth evaluation was also performed assuming transgranular stress corrosion cracking per the guidelines of Code Case N-705. An initial 2.7 inches long flaw (approximately twice the length from the OD of the base plate to the toe of the fillet weld inside the tank) is assumed for the crack growth analysis. This initial crack size assumption is based on postulating a leak path from the ID of the vessel through the two fillet welds and the shell wall. It was determined that it will take at least 40 years for this initial flaw to reach 3.1 inches. Based on the small crack growth, it is expected that all the indications are well below the allowable flaw sizes.

Similarly, the stress corrosion crack growth performed for the postulated circumferential through-wall flaw in the tank cylinder shows that it will take at least 18 years for a 0.35 inches long through-wall flaw to reach the allowable flaw size. No indications were observed in the vertical cylindrical shell during the current inspection. This does not imply that an indication does not exist in the vertical cylindrical shell.

CONCLUSIONS

Based on this evaluation, it is concluded that the observed indications in the base plate of the Monticello Standby Liquid Control tank are acceptable for operation until the next scheduled outage which is approximately one year away.

A postulated circumferential through-wall flaw in the cylindrical was also found to meet the acceptance criteria in Code Case N-705 for continued operation until the next scheduled outage. Note that, per the requirements of Code Case N-705, daily monitoring is required to ensure that the leakage is within acceptable limits.

The removal of a small boat sample at the edge of the base plate, away from the fillet weld of the cylindrical shell, for metallurgical examination will not impact the conclusions of this evaluation.

Please contact us if you have any questions. Thank you.

Prepared by:



G. A. Miessi
Associate

Reviewed by:



S. S. Tang, P.E.
Associate

Approved by:



G. A. Miessi
Associate

**10 CFR 50.55a REQUEST NO. 19
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

1. ASME Code Component(s) Affected

Components affected are American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), Section XI, Class 1, Reactor Vessel Nozzle-to-Vessel welds specified below and in-detail in Table A of Enclosure 2:

Recirculation Inlet	Nozzle N-2A	Weld - N-2A NV
Main Steam Outlet	Nozzle N-3C	Weld - N-3C NV
Feedwater Inlet	Nozzle N-4B	Weld - N-4B NV
Reactor Head Spare	Nozzle N-6B	Weld - N-6B NV
Reactor Head Vent	Nozzle N-7	Weld - N-7 NV
Jet Pump Instrumentation	Nozzle N-8B	Weld - N-8B NV
Standby Liquid Control Inlet / Core Differential Pressure	Nozzle N-10	Weld - N-10 NV

2. Applicable ASME Section XI Code Edition and Addenda

The applicable ASME Section XI Code for the Monticello Nuclear Generating Plant (MNGP), Fourth Ten-Year Inservice Inspection (ISI) Interval is the 1995 Edition with the 1996 Addenda. ASME Section XI, Appendix VIII requirements are implemented as required by, and as modified by, 10 CFR 50.55a. Procedures and personnel are qualified to the Performance Demonstration Initiative (PDI). The PDI Program document meets the requirements of 10 CFR 50.55a up through the 2001 Edition of Section XI.

3. Applicable Code Requirement

ASME Class 1 Nozzle-to-Vessel welds are subject to the examination requirements of Subsection IWB Table IWB-2500-1, as shown below, and 10 CFR 50.55a(b)(2)(xv)(G). The welds are required to be examined once within the Fourth Ten-Year Interval:

Code Class: 1
References: IWB-2500, Table IWB-2500-1
Examination Category: B-D
Item Number: B3.90
Description: Nozzle-to-Vessel Welds
Component Numbers: See Section 1 and Enclosure 2 Table A
System: Reactor Vessel
Examination Method: Volumetric - Ultrasonic Testing (UT)
Examination Volume: Figure IWB-2500-7(b)

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INSERVICE INSPECTION IMPRACTICALITY**

In October 2007, the Nuclear Regulatory Commission (NRC) issued Regulatory Guide (RG) 1.147, Revision 15, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1" (Reference 1). In RG 1.147, the NRC identifies the ASME Code Cases they have determined to be acceptable alternatives to applicable parts of Section XI, and indicate that licensees may use these Code Cases without requesting authorization from the NRC, provided that they are used with any identified limitations or modifications. RG 1.147, Table 1 lists the following two Code Cases as acceptable to the NRC for use by a licensee with no identified limitations or modifications:

- 1) Code Case N-460 (Reference 2),
- 2) Code Case N-613-1 (Reference 3).

Code Case N-460 states in part, "when the entire examination volume or area cannot be examined due to interference by another component or part geometry, a reduction in examination coverage on any Class 1 or Class 2 weld may be accepted provided the reduction in coverage for that weld is less than 10 percent."

NRC Information Notice (IN) 98-42 (Reference 4) termed a reduction in coverage of less than 10 percent to be "essentially 100 percent." IN 98-42 states in part, "The NRC has adopted and further refined the definition of 'essentially 100 percent' to mean 'greater than 90 percent'...has been applied to all examinations of welds or other areas required by ASME Section XI."

As an alternative to Figure IWB-2500-7(b), Code Case N-613-1 requires an examination volume that includes the width of the weld plus one-half inch of adjacent base metal on each side of the widest part of the weld. In comparison, the examination volume required by the Figure IWB-2500-7(b) includes the width of the weld plus the adjacent base metal on each side of the widest part of the weld equal to one-half of the vessel shell wall thickness.

4. Impracticality of Compliance

Construction Permit CPPR-31 was obtained for the MNGP in 1967. The MNGP systems and components were designed and fabricated before the examination requirements of ASME Section XI were formalized and published. Therefore, MNGP was not specifically designed to meet the requirements of ASME Section XI and full compliance is not feasible or practical within the limits of the current plant design.

10 CFR 50.55a recognizes the limitations to inservice inspection of components in accordance with Section XI of the ASME Code imposed due to early plants' design and construction, as follows:

**10 CFR 50.55a REQUEST NO. 19
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

10 CFR 50.55a(g)(1): For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued prior to January 1, 1971, components (including supports) must meet the requirements of paragraphs (g)(4) and (5) of this section to the extent practical.

10 CFR 50.55a(g)(4): Throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and pre-service examination requirements, set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code ... to the extent practical within the limitations of design, geometry and materials of construction of the components.

10 CFR 50.55a(g)(5)(iii): If the licensee has determined that conformance with certain code requirements is impractical for its facility, the licensee shall notify the Commission and submit, as specified in § 50.4, information to support the determinations.

The inspection limitations on the subject components are due to inherent nozzle design geometric contours and interference (see Enclosure 2 Table A).

A description of the examination methodology used to provide the maximum obtainable coverage is provided in Section 6 of this request. This methodology is based on ASME Section XI, Appendix VIII qualification and was applied to the extent practical within the design constraints of the components. Enclosure 3 provides cross-sectional diagrams of the subject welds showing the geometric contour of the component design in relation to the welds and the coverage obtained within the alternative examination volume requirements of Code Case N-613-1, Figure 2.

5. Burden Caused by Compliance

Compliance with the examination coverage requirements of ASME Section XI would require modification, redesign, or replacement of components where geometry is inherent to the component design.

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

6. Proposed Alternative and Basis for Use

Proposed Alternative

In accordance with 10 CFR 50.55a(g)(5)(iii), relief is requested for the components listed in Table A of Enclosure 2 on the basis that the required examination coverage of "essentially 100 percent" is impractical due to physical obstructions and the limitations imposed by design, geometry and materials of construction.

Northern States Power Company – Minnesota (NSPM) performed qualified volumetric examinations that achieved the maximum, practical amount of coverage obtainable within the limitations imposed by the design of the components. In addition to volumetric examinations, as Class 1 Examination Category B-P components, a VT-2 examination is performed on the subject components of the Reactor Coolant Pressure Boundary (RCPB) during system pressure tests each refueling outage. This was completed during the 2009 refueling outage and no evidence of leakage was identified for these components.

Pursuant to 10 CFR 50.55a(g)(5)(iii), NSPM requests authorization of an alternative to the requirements of ASME Section XI Table IWB-2500-1, Category B-D, Item B3.90, and proposes to utilize these completed exams as acceptable alternatives that provide reasonable assurance of continued structural integrity.

Basis for Use

The NSPM Nondestructive Examination (NDE) procedures incorporate inspection techniques qualified under Appendix VIII of the ASME Section XI Code by the PDI for examination of the subject nozzle-to-vessel welds, and allow the examination volume to meet the provisions of alternative requirements (i.e., Code Case N-613-1).

The examinations were performed from the Reactor Vessel exterior surface using a manual contact method from the nozzle blend radius, the nozzle-to-vessel shell weld, and vessel shell surface. Coverage was obtained by following the scan parameters designated within NSPM NDE procedures for each nozzle configuration and angle, including those parameters defined by MNGP specific Electric Power Research Institute (EPRI) computer modeling reports (References 5 and 6). It should be noted that that the scans defined by the EPRI report are only applicable to the inner 15 percent of the weld volume when scanning in the parallel (circumferential) direction.

The refracted longitudinal wave mode of propagation was applied for all radial (axial) scans of the exam volume. The refracted longitudinal wave mode of propagation was also applied to the outer 85 percent of the exam volume for parallel scans. As required by the NSPM NDE procedures and the EPRI computer modeling report, the

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INSERVICE INSPECTION IMPRACTICALITY**

shear wave mode of propagation was applied for each of the transducer and wedge combinations required for the remaining inner 15 percent of the parallel scan examination volume.

The subject components received the required examination(s) to the extent practical within the limited access of the component design. One hundred percent coverage was obtained for the inner 15 percent of the examination volume for the radial and parallel scans. The examination limitations for the subject components were encountered within the outer 85 percent of the examination volume for the parallel and radial scans. For the examinations conducted, satisfactory results were achieved, and no evidence of unacceptable flaws was detected with the inspection techniques.

Due to the design of these welds it was not feasible to effectively perform a volumetric examination of "essentially 100 percent" of the required volume. The nozzle-to-vessel welds are accessible from the vessel plate side of the weld and are examined to the extent practical with qualified techniques, but the curvature of the nozzle forging and proximity to the weld precludes obtaining further coverage of the excluded areas within the outer 85 percent of the examination volume.

As required by site procedure, when limitations are encountered that prevent obtaining full coverage of a required volume while performing ISI examinations, the limitations are required to be quantified and recorded.

The method used to determine coverage is based on field measurements applied to a two dimensional plot. This allows an informed approximation to be made of the coverage achieved. The methodology is appropriate to the application in that the limitations are physical and the methods applied to the examination are established by the qualified techniques. Variations in the percent coverage obtained from the previous examinations are the result of changes in examination technique and/or required coverage. The current coverage determinations are different from past examinations due to the use of PDI qualified techniques and a reduced exam volume required by use of Code Case N-613-1.

Per 10 CFR 50.55a(g)(1) and (4), each of the subject welds¹ were examined to the extent practical during the First, Second, and Third Ten-Year ISI Intervals. Prior to 1997, NSPM did not perform examination coverage determinations or submit relief requests pursuant to 10 CFR 50.55a for limited examinations due to a misinterpretation of 10 CFR 50.55a(g)(4). It was construed that the interferences inherent in the design constituted impracticality and were exempted.

¹ As an exception, the N-10 weld was not examined in the First Interval based on approved ISI Relief Request #15 (Reference 14)

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

This misinterpretation was identified during the Third Ten-Year ISI Interval and was reported to the NRC in Licensee Event Report (LER) 97-004 (Reference 13).

Going forward from 1998, relief requests for limited exams have been submitted to the NRC. There is no means for retroactively complying with 10 CFR 50.55a for prior Intervals. These issues were documented in the MNGP corrective action program and various corrective actions were taken to prevent recurrence, including submittal of relief requests after completion of every refueling outage when examination coverage is limited and Code examination requirements cannot be met.

Details regarding the aforementioned limited exam relief request issues were included with supplemental information submitted to the NRC in March 2008. The supplemental information was provided to assist the NRC with review of MNGP 4th Interval Relief Request #15 (Reference 19) which was subsequently approved in May 2008 (Reference 9).

The coverage drawings in Enclosure 3 give a representation of the examination volume and the weld interface line in the same manner as the figure included in Code Case N-613-1. The areas of examination volume coverage are identified by the lightly shaded or cross-hatched areas on the drawings. The remaining areas of the examination volume, with black shading or with *no* shading or *no* cross-hatching, represent areas with *no* coverage. On page 16 of Enclosure 3, a sketch of a typical nozzle is provided with a cross sectional view of the weldment depicting the curvature of the nozzle exterior surface and its effect on transducer liftoff. Although there is some variation, most of the limited coverage is in the nozzle base material with a lesser amount in the weld and base material on the vessel shell side.

Additional coverage for the limited areas was not achievable or practical, based on the latest qualified ultrasonic technology, nor by other considered examination methods, such as radiography. NSPM has concluded that if significant degradation existed in the subject welds, it would have been identified by the examinations performed.

A table of examination history and results is provided for prior ISI Intervals in Enclosure 4, including available coverage information and Relief Requests.

Additionally, as Class 1 Examination Category B-P components, VT-2 examinations were performed on the subject components in association with the RCPB system pressure test performed during the 2009 refueling outage. No evidence of leakage was identified during this system test.

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INSERVICE INSPECTION IMPRACTICALITY**

The materials for the subject components are A508 Cl II nozzle forgings welded to A533 Cl I vessel shell plate. The weld filler material for the subject joints was E8018NM. Inner diameter cladding materials are E309-15 for the base layer, and ER308L or E308L-15 for subsequent layers. A review of operating experience within the nuclear industry did not reveal any instances of cracking in this location and type of weldment, specifically nozzle-to-vessel shell welds.

The MNGP reactor vessel water chemistry is controlled in accordance with the 2008 revision to the BWR Water Chemistry Guidelines (Reference 7). Also a hydrogen water chemistry system is used to reduce the oxidizing environment in the reactor coolant. These additional measures provide added assurance against the initiation of cracking or corrosion from the inside surface of the reactor vessel. An inerted primary containment environment during operation provides assurance of corrosion protection on the outside surface of the reactor vessel.

The provisions described above, as an alternative to the code requirement, will continue to provide reasonable assurance of the structural integrity of the subject welds. The examinations were completed to the extent practical and no unacceptable flaws were identified. VT-2 examinations performed on the subject components during system pressure testing each refueling outage (in accordance with Examination Category B-P) provide continued assurance that the structural integrity of the subject components is maintained. Additionally, the MNGP Water Chemistry Program and inerted primary containment environment provide added measures of protection for the component materials.

Therefore, pursuant to 10 CFR 50.55a(g)(5)(iii), NSPM requests that the NRC grant relief from the ASME Section XI examination requirements for the subject nozzle-to-vessel welds.

7. Duration of Proposed Alternative

NSPM requests the granting of this relief for the Fourth Ten-Year Inservice Inspection Interval of the Inservice Inspection Program for the MNGP that is scheduled to end on May 31, 2012.

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IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

8. Precedent

The NRC has granted relief for other nozzle-to-vessel shell welds at the MNGP, most recently for the current Fourth Ten-Year Inservice Inspection Interval (References 8 and 9). Also, the NRC has granted relief for the Quad Cities Nuclear Power Station, Units 1 and 2 (Reference 10), Dresden Nuclear Power Station, Units 2 and 3 (Reference 11), and Prairie Island Nuclear Generating Plant, Unit 2 (Reference 12).

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INSERVICE INSPECTION IMPRACTICALITY**

REFERENCES

1. Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 15, October 2007.
2. ASME Section XI Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds."
3. ASME Section XI Code Case N-613-1, "Ultrasonic Examination of Full Penetration Nozzles in Vessels, Examination Category B-D, Item No's. B3.10 and B3.90, Reactor Nozzle-To-Vessel Welds, Figures IWB-2500-7(a), (b), and (c)."
4. NRC Information Notice 98-42, "Implementation of 10 CFR 50.55a(g) In-service Inspection Requirements."
5. EPRI Internal Report IR-2004-63, "Monticello Nozzle Inner Radius and Nozzle-to-Shell Weld Examinations," dated December 2004.
6. EPRI Internal Report IR-2006-100, "Monticello Nozzle Inner Corner Regions and Nozzle-to-Shell Weld Examinations," dated January 2006.
7. "BWRVIP-190: BWR Vessel and Internals Project, BWR Water Chemistry Guidelines - 2008 Revision," EPRI Technical Report, TR-1016579, October 2008.
8. NRC letter to NMC, "Monticello Nuclear Generating Plant (MNGP) - Fourth 10-Year Interval Inservice Inspection (ISI) Program Plan Relief Request No. 13 (TAC No. MC8882)," dated July 18, 2006.
9. NRC letter to NMC, "Monticello Nuclear Generating Plant (MNGP) - Granting of Relief Regarding Limited Ultrasonic Examination Coverage of Five Welds (TAC No. MD6854)," dated May 19, 2008.
10. Letter from NRC to Exelon Generation Company, LLC, "Quad Cities, Units 1 and 2 - Relief Request CR-39 for Third 10-Year Inservice Inspection Interval (TAC Nos. MC2427 and MC2428)," dated May 10, 2005.
11. Letter from NRC to Exelon Generation Company, LLC, "Dresden Nuclear Power Station, Units 2 and 3 - Relief Request CR-26 For Third 10-Year Inservice Inspection Interval (TAC Nos. MC3269 and MC3270)," dated October 1, 2004.

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12. NRC letter to NMC, "Prairie Island Nuclear Generating Plant, Unit 2 – Evaluation of Relief Request No. 16 for the Unit 2 3rd 10-year Interval Inservice Inspection Program (TAC No. MC1775)," dated October 18, 2004.
13. LER 97-004, "Failure to Submit Relief Requests for Limited Inservice Inspection Examinations," dated March 24, 1997.
14. NRC letter to Northern States Power Company, "Safety Evaluation Report, Monticello Nuclear Generating Plant Inservice Inspection Program," dated April 10, 1981.
15. MNGP Corrective Action Program Action Request (CAP A/R) 01126631, "Available documentation doesnt [sic] support closed M97024A action", origination date February 8, 2008.
16. MNGP Letter to NRC, "Request for Relief No. 11 for the 3rd 10-Year Interval Inservice Inspection Program," dated May 25, 2000.
17. MNGP Letter to NRC, "Supplemental Information Request for Relief No. 11 for the 3rd 10-Year Interval Inservice Inspection Program," dated July 11, 2000.
18. MNGP Corrective Action Program Action Request (CAP A/R) 01013875, "6 limited ISI exams not included in Cycle 19 Relief Request", origination date February 7, 2006.
19. MNGP Letter to NRC, "Response to Request for Additional Information Regarding 10 CFR 50.55a Request No. 15 (RR-15): Relief from Impractical Examination Coverage Requirements Pursuant to 10 CFR 50.55a(g)(5)(iii) for the Fourth Ten-Year Inservice Inspection Interval (TAC No. MD6854)," dated March 21, 2008.

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**TABLE A - Category B-D, "Full Penetration Welds of Nozzles in Vessels," Item No. B3.90
2009 Refueling Outage, Percent Coverage and Limitations for Nozzles N-2A, N-3C, N-4B, N-6B, N-7, N-8B, and N-10**

Code Category and Item No.	System and Component Description	Component ID ¹	Code Component and Examination Volume Required	Percent ² Coverage Obtained	Limitations	Exam Report Number
B-D B3.90	Reactor Vessel, Recirculation Inlet Nozzle N-2A	N-2A NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	83%	Limited due to nozzle configuration.	2009UT033
B-D B3.90	Reactor Vessel, Main Steam Outlet Nozzle N-3C	N-3C NV ³	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	83%	Limited due to nozzle configuration.	2009UT024
B-D B3.90	Reactor Vessel, Feedwater Inlet Nozzle N-4B	N-4B NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	83%	Limited due to nozzle configuration.	2009UT026
B-D B3.90	Reactor Vessel, Top Head Spare Nozzle N-6B	N-6B NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	87%	Limited due to nozzle configuration.	2009UT021
B-D B3.90	Reactor Vessel, Top Head Vent Nozzle N-7	N-7 NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	87%	Limited due to nozzle configuration.	2009UT023
B-D B3.90	Reactor Vessel, Jet Pump Instrumentation Nozzle N-8B	N-8B NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	83%	Limited due to nozzle configuration.	2009UT028
B-D B3.90	Reactor Vessel, Standby Liquid Inlet / Core Diff. Pressure Nozzle N-10	N-10 NV	Nozzle-to-Vessel Weld, Code Case N-613-1 Figure 2	85%	Limited due to nozzle configuration and close proximity to vessel skirt weld.	2009UT030

1.5-229

¹ With exception of component N-3C NV, no indications were reported for the component's examination.

² Due to the nozzle design it was not feasible to effectively examine essentially 100 percent of the required examination volume as defined in Figure 2 of Code Case N-613-1. Percentages are conservatively rounded down to the nearest whole number.

³ Previously observed subsurface indication was re-confirmed and re-evaluated as acceptable per Code paragraph IWB-3512-1. No observed change since previous exam in 1998.

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INSERVICE INSPECTION IMPRACTICALITY**

**EXAM LIMITATIONS IMPOSED BY COMPONENT
DESIGN AND CONSTRUCTION**

This enclosure contains a series of excerpts from the ISI Ultrasonic Testing (UT) reports applicable to the subject components.

These excerpts contain sketches depicting the component configuration with physical limitations imposed by the design, e.g., geometrical contour, weld position, interferences, and a cross sectional view depicting the UT coverage and limitations in relation to the required examination volume.

Also included is a sketch of a typical reactor vessel nozzle contour and the resulting effect that causes the UT transducer to lift and lose effective coupling when it reaches the nozzle blend radius. Detail is also provided to describe the various assembly components including reference to the internal and external reactor vessel surfaces.

<u>COMPONENT</u>	<u>REPORT</u>	<u>PAGE(S)</u>
N-2A NV	2009UT033	Pages 2-3
N-3C NV	2009UT024	Pages 4-5
N-4B NV	2009UT026	Pages 6-7
N-6B NV	2009UT021	Pages 8-9
N-7 NV	2009UT023	Pages 10-11
N-8B NV	2009UT028	Pages 12-13
N-10 NV	2009UT030	Pages 14-15
Typical Reactor Vessel Nozzle contour affecting transducer contact at blend radius		Page 16

Coverage drawings excerpted from applicable reports

Component N-2A NV

Axial (Radial) Scan Plot

Report # 2009UT033

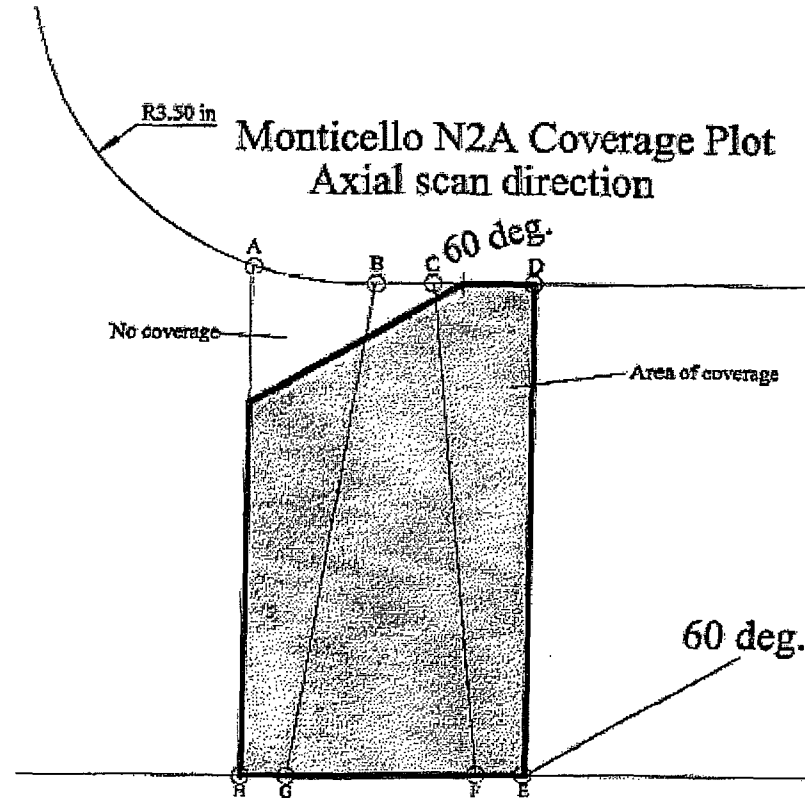


Supplemental Report

Report No.: 2009UT033

Summary No.: 102656

1.5-231



Component N-2A NV Parallel (Circ) Scan Plot Report # 2009UT033

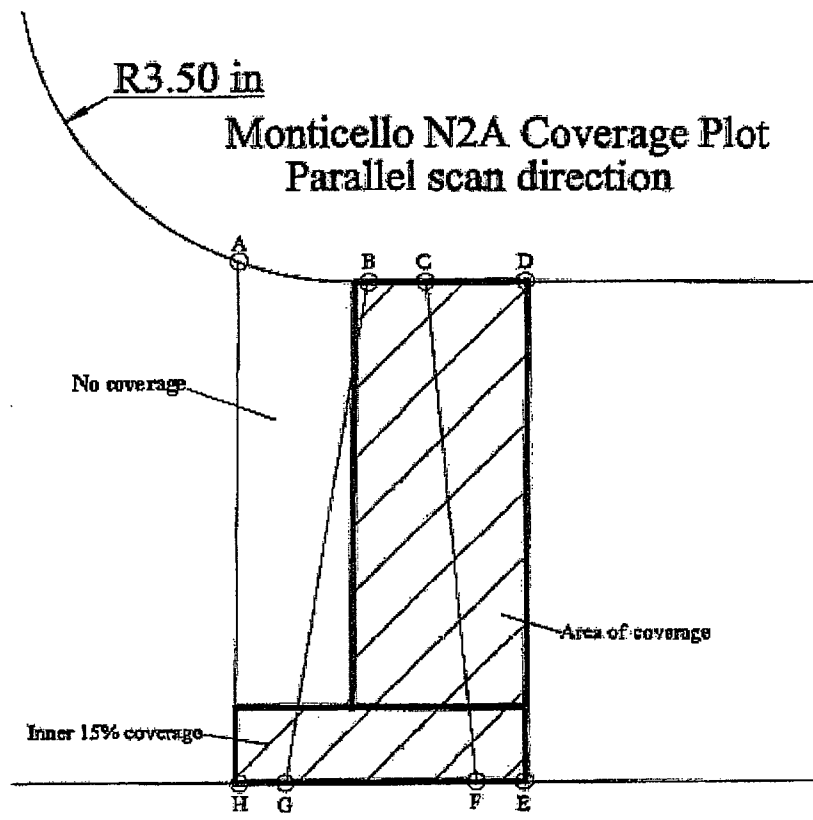


Supplemental Report

Report No.: 2009UT033

Summary No.: 102656

1.5-232



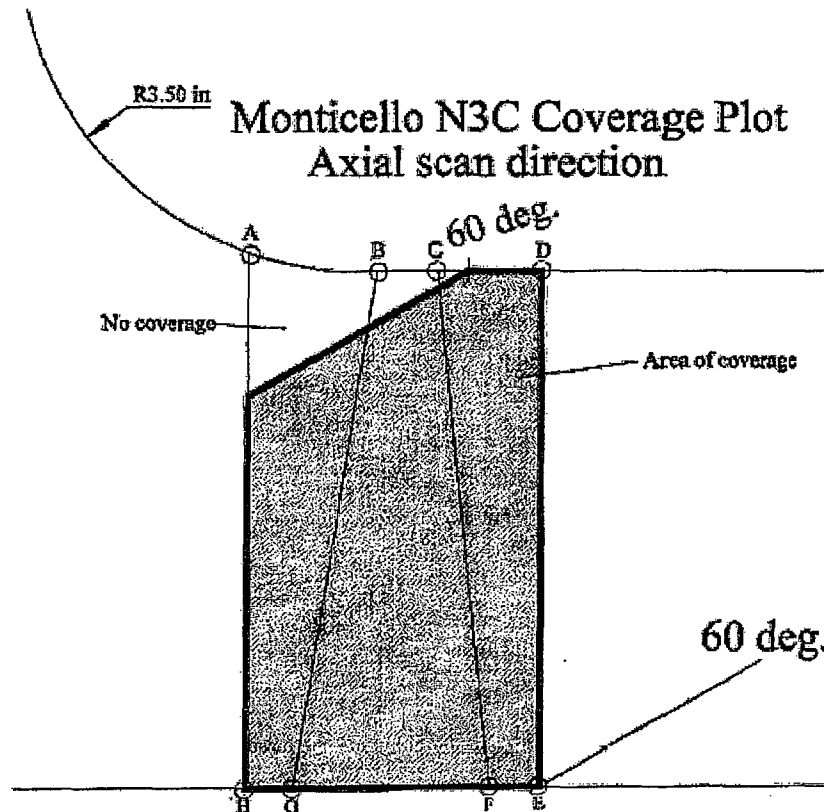
Component N-3C NV Axial (Radial) Scan Plot Report # 2009UT024



Supplemental Report

Report No.: 2009UT024

Summary No.: 102550



1.5-233

Component N-3C NV Parallel (Circ) Scan Plot Report # 2009UT024

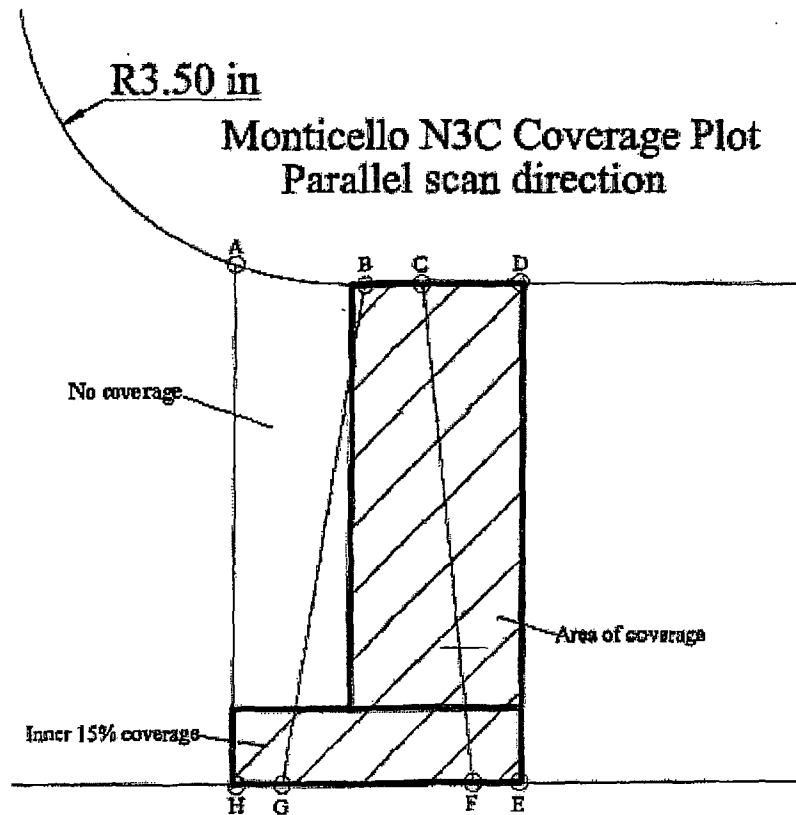


Supplemental Report

Report No.: 2009UT024

Summary No.: 102880

1.5-234



Component N-4B NV Axial (Radial) Scan Plot Report # 2009UT026

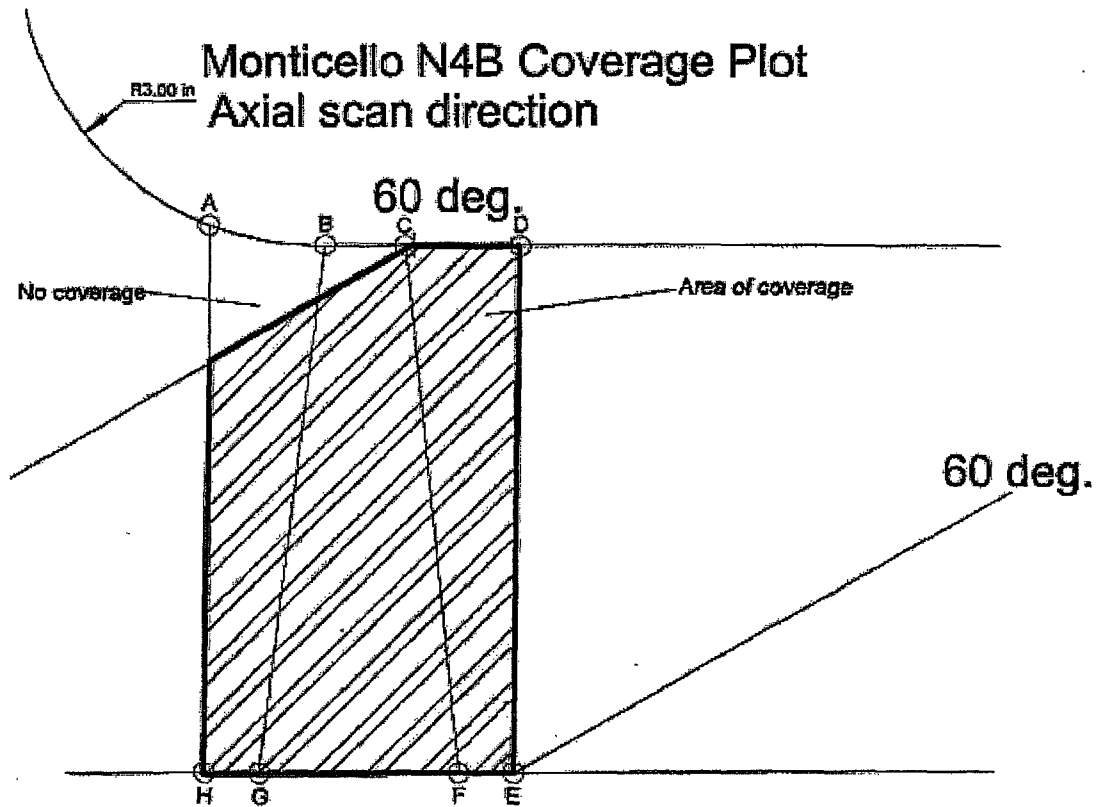


Supplemental Report

Report No.: 2009UT026

Summary No.: 102688

1.5-235



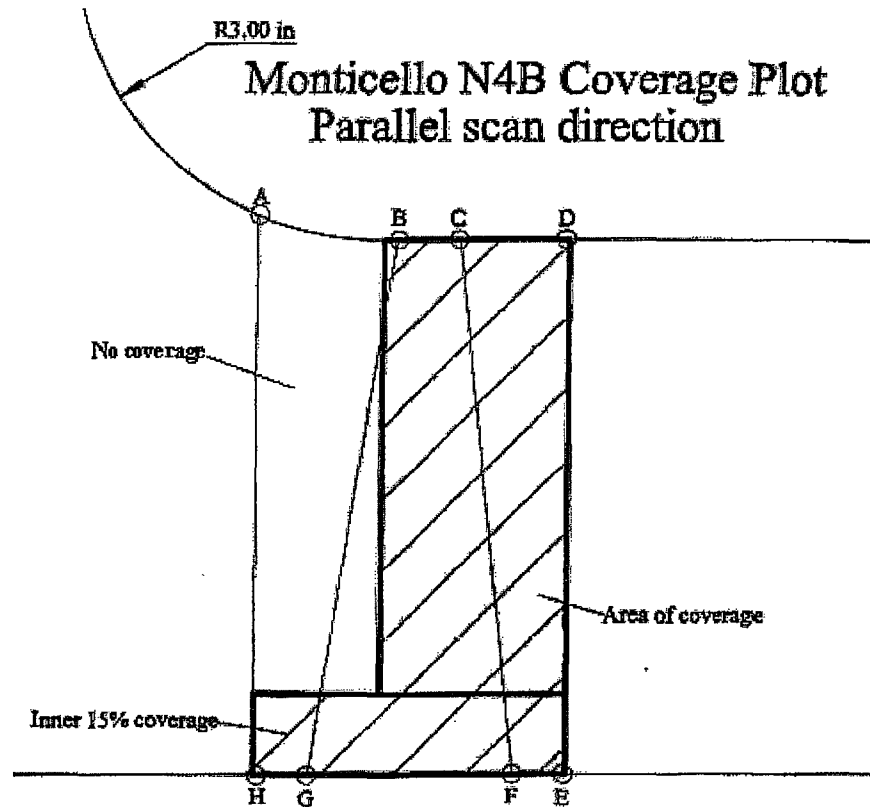
Component N-4B NV Parallel (Circ) Scan Plot Report # 2009UT026



Supplemental Report

Report No.: 2009UT026

Summary No.: 102686



1.5-236

Component N-6B NV Axial (Radial) Scan Plot Report # 2009UT021

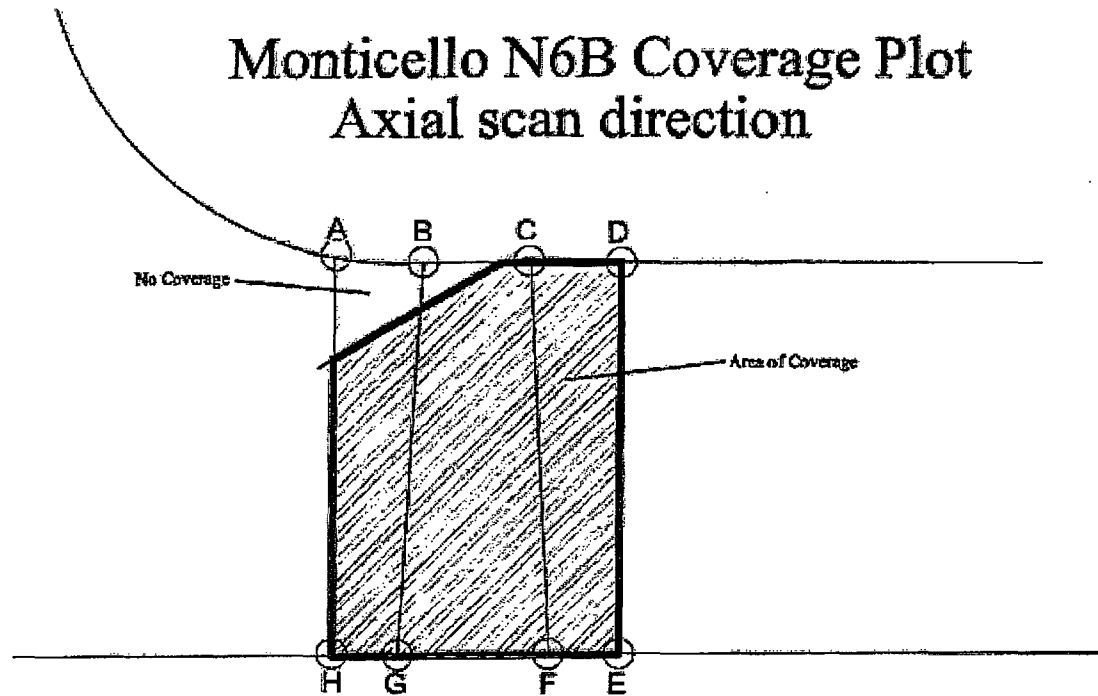


Supplemental Report

Report No.: 2009UT021

Summary No.: 102377

Monticello N6B Coverage Plot
Axial scan direction



1.5-237

Component N-6B NV Circ (Parallel) Scan Plot Report # 2009UT021

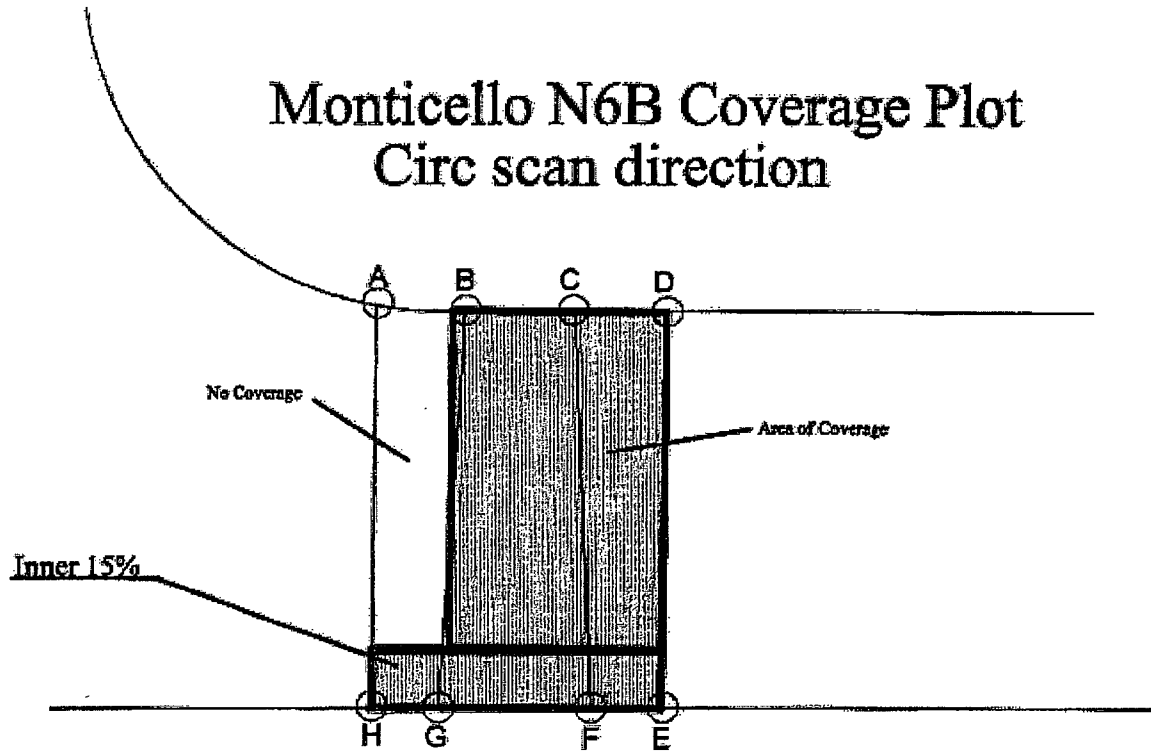


Supplemental Report

Report No.: 2009UT021

Summary No.: 102377

Monticello N6B Coverage Plot
Circ scan direction



1.5-238

Component N-7 NV Axial (Radial) Scan Plot Report # 2009UT023



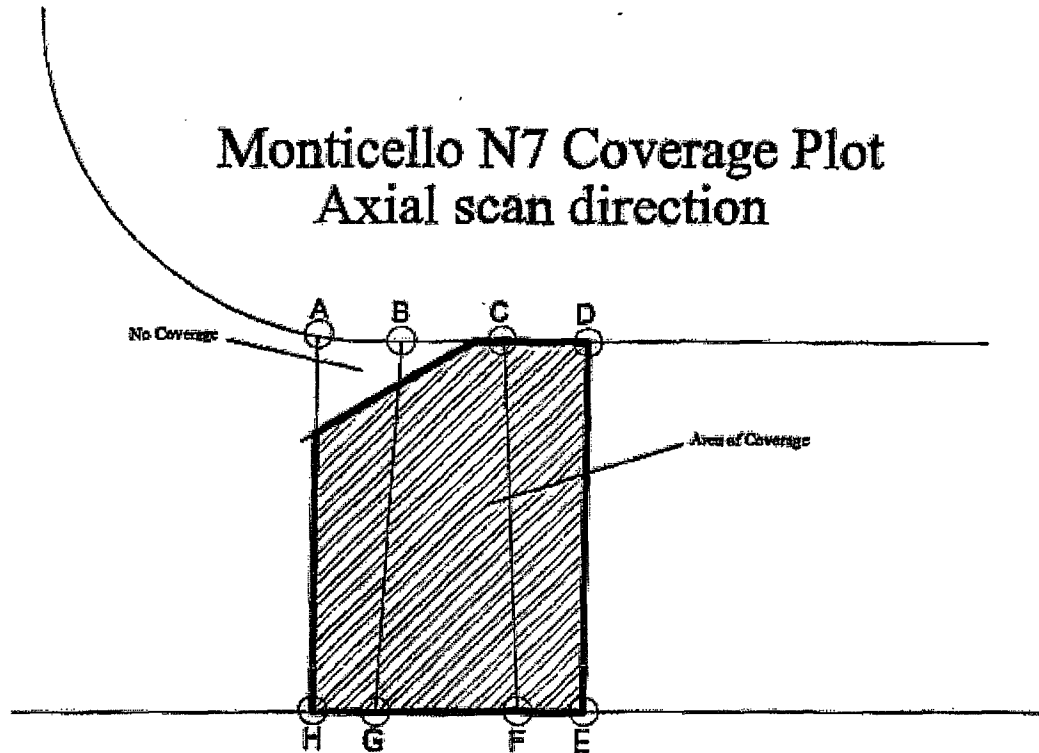
Supplemental Report

Report No.: 2009UT023

Summary No.: 102379

1.5-239

Monticello N7 Coverage Plot
Axial scan direction



Component N-7 NV Circ (Parallel) Scan Plot Report # 2009UT023



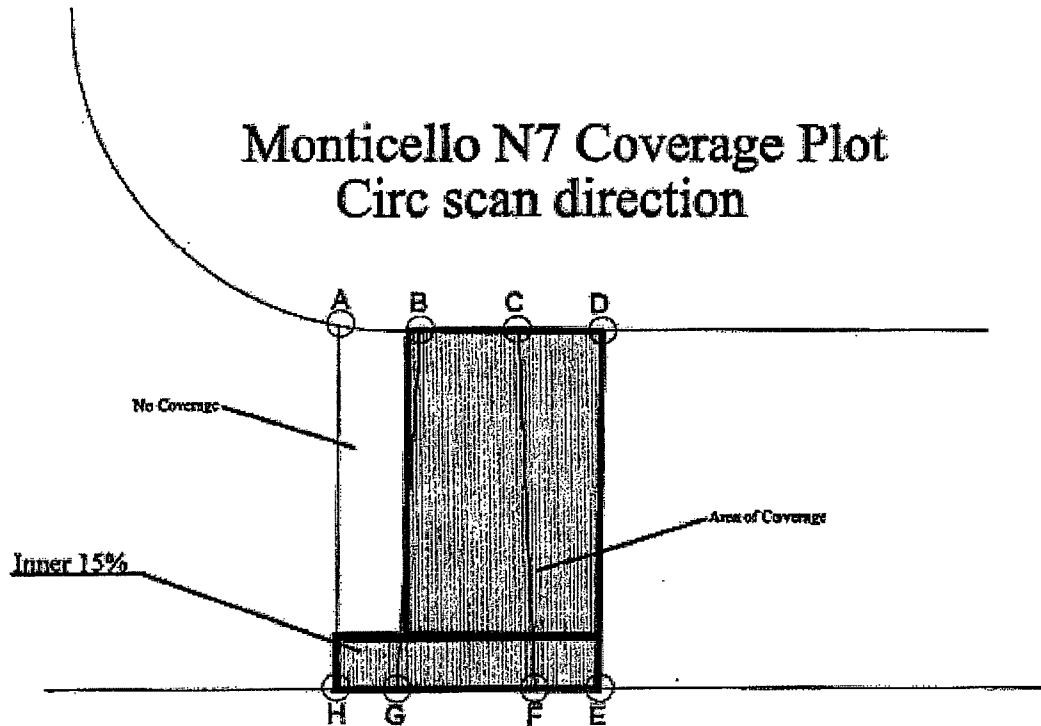
Supplemental Report

Report No.: 2009UT023

Summary No.: 102379

1.5-240

Monticello N7 Coverage Plot
Circ scan direction



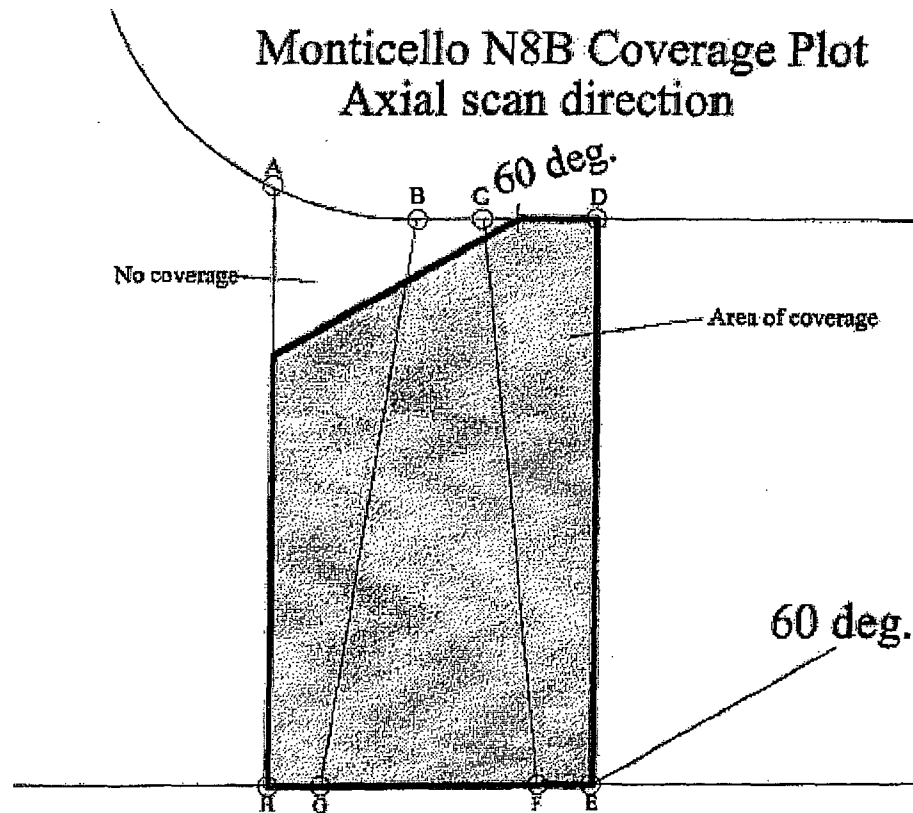
Component N-8B NV Axial (Radial) Scan Plot Report # 2009UT028



Supplemental Report

Report No.: 2009UT028

Summary No.: 102888



1.5-241

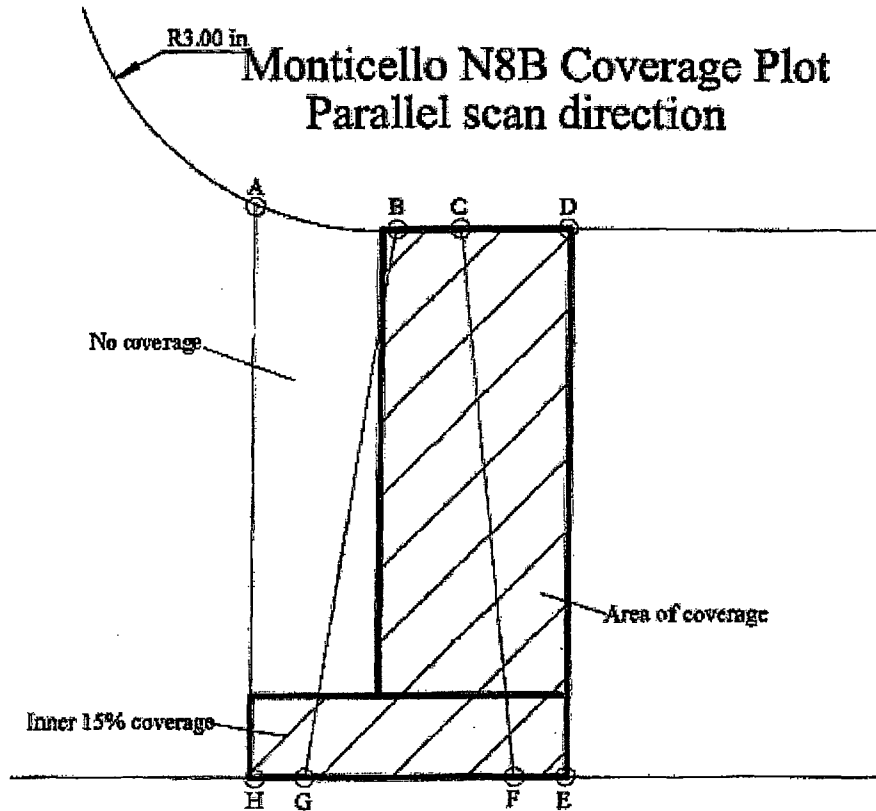
Component N-8B NV Parallel (Circ) Scan Plot Report # 2009UT028



Supplemental Report

Report No.: 2009UT028

Summary No.: 102698



1.5-242

Component N-10 NV Axial (Radial) Scan Plot Report # 2009UT030

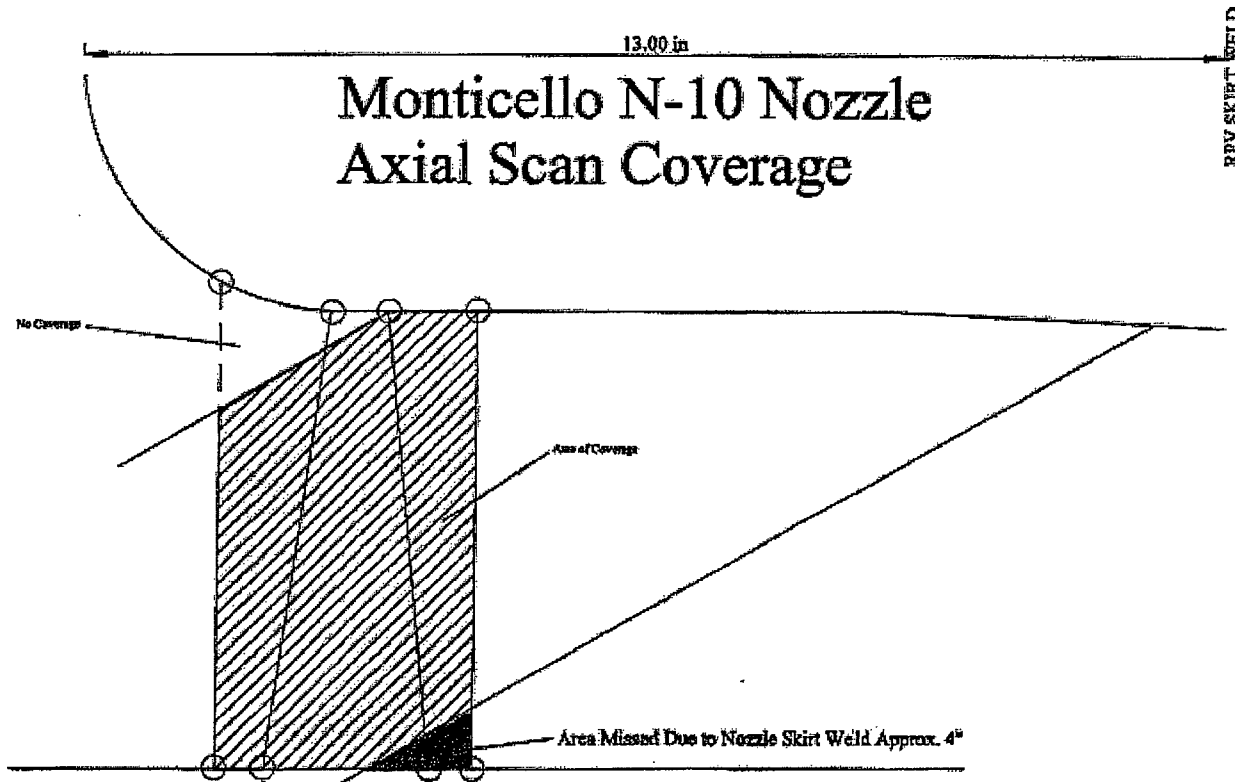


Supplemental Report

Report No.: 2009UT030

Summary No.: 102623

1.5-243



Component N-10 NV Circ (Parallel) Scan Plot Report # 2009UT030



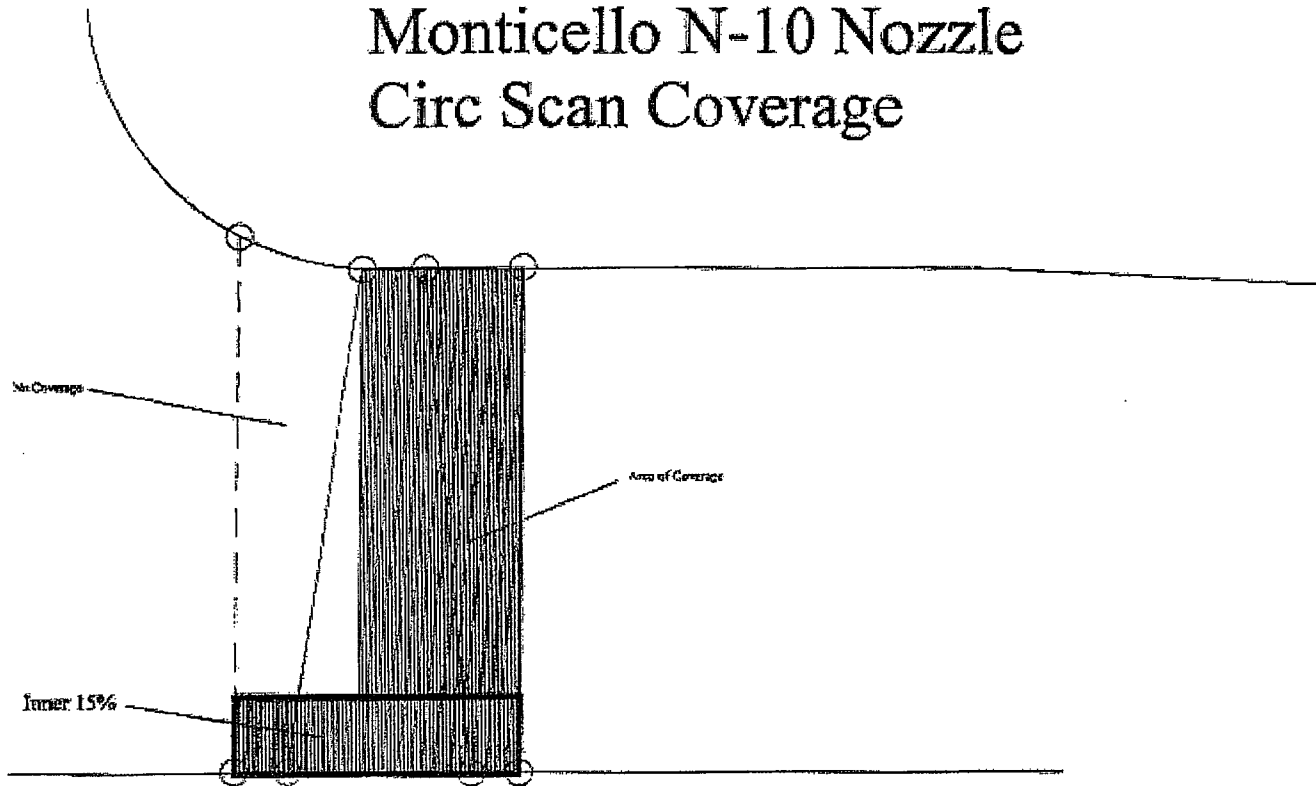
Supplemental Report

Report No.: 2009UT030

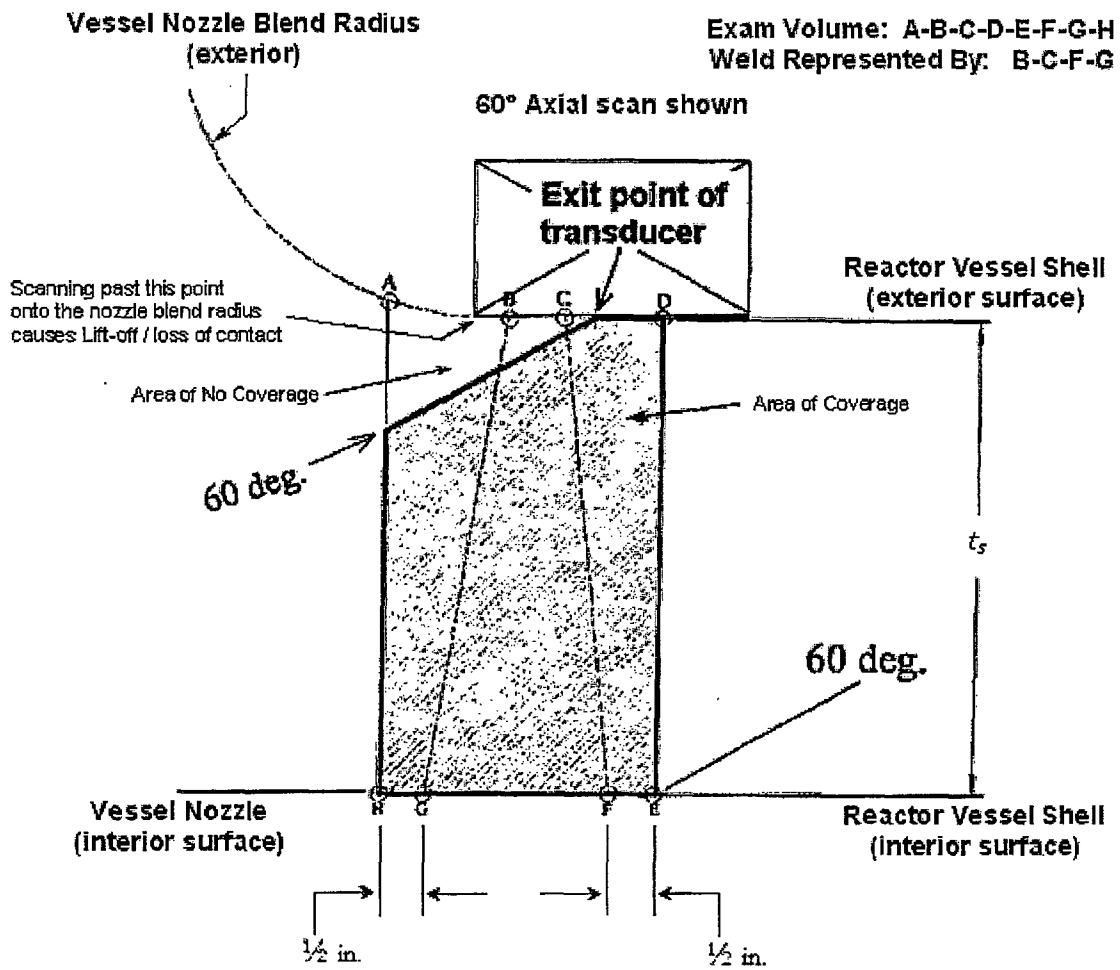
Summary No.: 102623

Monticello N-10 Nozzle Circ Scan Coverage

1.5-244



Typical Representation of Nozzle Limitations



1.5-245

**10 CFR 50.55a REQUEST NO. 19
IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
INSERVICE INSPECTION IMPRACTICALITY**

Table 1 – Historical Examination Information

Weld	Interval / Exam Year	Coverage / Results for Limited Exam	Relief Request	NRC Approval
N-2A	1st / 1974	(Note 1), no flaw indications	(Note 2)	(Note 2)
	2nd / 1982	(Note 1), no flaw indications	(Note 2)	(Note 2)
	3rd / 2001	62% coverage, no flaw indications	3rd, ISI RR-16	TAC No. MB5487, May 19, 2003
N-3C	1st / 1975	(Note 1), no flaw indications	(Note 2)	(Note 2)
	2nd / 1989	(Note 1), no flaw indications	(Note 2)	(Note 2)
	3rd / 1998	51% coverage, acceptable mid-wall indication	3rd, ISI RR-10	TAC No. MB3397, August 4, 1999
N-4B	1st / 1977	(Note 1), no flaw indications	(Note 2)	(Note 2)
	2nd / 1987	(Note 1), no flaw indications	(Note 2)	(Note 2)
	3rd / 1998	51% coverage, no flaw indications	3rd, ISI RR-10	TAC No. MB3397, August 4, 1999
N-6B	1st / 1981	(Note 1), no flaw indications	(Note 2)	(Note 2)
	2nd / 1991	(Note 1), no flaw indications	(Note 2)	(Note 2)
	3rd / 2000	70% coverage, no flaw indications	(Note 3)	(Note 3)
N-7	1st / 1973	(Note 1), no flaw indications	(Note 2)	(Note 2)
	2nd / 1984	(Note 1), no flaw indications	(Note 2)	(Note 2)
	3rd / 1998	89% coverage, no flaw indications	3rd, ISI RR-10	TAC No. MB3397, August 4, 1999
N-8B	1st / 1981	(Note 1), no flaw indications	(Note 2)	(Note 2)
	2nd / 1991	(Note 1), no flaw indications	(Note 2)	(Note 2)
	3rd / 2001	62% coverage, no flaw indications	3rd, ISI RR-16	TAC No. MB5487, May 19, 2003
N-10	1st / N/A	N/A	1st, ISI RR-15	Safety Evaluation Report, Apr 10, 1981
	2nd / 1989	(Note 1), no flaw indications	(Note 2)	(Note 2)
	3rd / 2000	55% coverage, no flaw indications	(Note 3)	(Note 3)

Note 1: MNGP did not document Code coverage values for limited exams prior to 1997 (References 9 and 13)

Note 2: With the exception of relief identified for the 1st Interval for Nozzle N-10 due to inaccessibility at the time (Reference 14), relief was not requested for limited exams on the subject welds prior to 1997 (Reference 9, 13, and 15)

Note 3: Limited exam errantly omitted from 3rd Interval ISI Relief Request 11 submitted for the 2000 refueling outage (References 16 and 17), as documented in the MNGP Corrective Action Program (Reference 18)

QUALITY GROUP CLASSIFICATION DRAWINGS
(ISI BOUNDARY DWGS)

<u>ISO #</u>	<u>REV</u>	<u>SYSTEM / DESCRIPTION</u>
BOUNDARY DRAWINGS		
1.5-1	0	ISI Index Key
1.5-2	3	Main Steam System
1.5-3	2	Feedwater System
1.5-4	1	Reactor Circulation System
1.5-5	3	Core Spray System
1.5-6	4	Residual Heat Removal System Loop A
1.5-7	5	Residual Heat Removal System Loop B
1.5-8	3	High Pressure Coolant Injection System (Steam Side)
1.5-9	2	High Pressure Coolant Injection System (Water Side)
1.5-10	2	Reactor Core Isolation Cooling (Steam Side)
1.5-11	2	Reactor Core Isolation Cooling (Water Side)
1.5-12	2	Standby Liquid Control System
1.5-13	3	Primary Containment Atmospheric Control System
1.5-14	3	Emergency Diesel Generator Emergency Service Water
1.5-15	3	Emergency Diesel Generator Emergency Service Water
1.5-16	2	RHR Service Water
1.5-17	3	Hydraulic Control Unit
1.5-18	2	Control Rod Drive System (Scram Discharge Piping)
1.5-19	1	Compressed Air System
1.5-20	2	Demineralized Water System
1.5-21	2	Reactor Water Clean-up & Liquid Radwaste
1.5-22	1	Traversing In-core Probe System
1.5-23	1	Excess-Flow Check Valves
1.5-26	1	Primary Containment Sampling Systems
1.5-27	1	Reactor Vessel Instrumentation

ISI ISOMETRIC DRAWINGS

<u>ISO #</u>	<u>REV</u>	<u>SYSTEM / DESCRIPTION</u>
CLASS 1 & 2 DRAWINGS		
ISI Fig. 0	4	RX Vessel Interior
ISI Fig. 1	5	RX Vessel Top Head
ISI Fig. 2	4	CRD Location RX Vessel
ISI Fig. 3	3	RX Vessel Bottom Head
ISI Fig. 4	5	Circ. & Long Reactor Vessel Welds
ISI Fig. 5	4	RX Vessel Nozzles
ISI Fig. 6	5	Reactor Vessel Bolting
ISI 13142-17-A	6	RHR A Suction
ISI 13142-17-B	4	HPCI Water
ISI-13142-17-C	7	RHR B
ISI-13142-18-A	5	RHR B
ISI-13142-18-B	6	RHR B Discharge
ISI-13142-18-C	3	RHR B Discharge
ISI-13142-19-A	5	HPCI Steam Side Discharge
ISI-13142-19-B	5	RCIC Steam Discharge
ISI-13142-20-A	5	Core Spray A Suction
ISI-13142-20-B	5	Core Spray B Suction
ISI-13142-26-A	5	Core Spray B Discharge
ISI-13142-26-B	5	Core Spray B Discharge
ISI-13142-26-C	6	Core Spray B Discharge
ISI-13142-26-D	2	Core Spray B Discharge
ISI-13142-29-A	3	RX Bldg Cooling Water
ISI-13142-31-A	5	Core Spray A Discharge
ISI-13142-31-B	4	Core Spray A Discharge
ISI-13142-31-C	5	Core Spray A Discharge
ISI-13142-31-D	2	Core Spray A Discharge
ISI-13142-33-A	5	Main Steam A
ISI-13142-34-A	5	Main Steam B
ISI-13142-35-A	5	Main Steam C
ISI-13142-36-A	6	Main Steam D
ISI-13142-37-A	4	RHR A Discharge
ISI-13142-37-B	5	Containment Spray
ISI-13142-37-C	5	RHR A Discharge
ISI-13142-37-D	4	Containment Spray (RHR A)
ISI-13142-37-E	1	Containment Spray (RHR A)
ISI-13142-40-A	4	HPCI Water Side Discharge
ISI-13142-40-B	5	HPCI Water Side Discharge

ISI ISOMETRIC DRAWINGS

<u>ISO #</u>	<u>REV</u>	<u>SYSTEM / DESCRIPTION</u>
CLASS 1 & 2 DRAWINGS (continued)		
ISI-13142-41-A	5	RCIC Water Suction
ISI-13142-42-A	6	HPCI Steam Side
ISI-13142-43-A	5	RCIC Steam Side
ISI-13142-48-A	4	RHR Service Water
ISI-13142-48-B	5	RHR Service Water
ISI-13142-49-A	4	RHR A
ISI-13142-51-A	5	RHR A
ISI-13142-51-B	5	RHR B
ISI-13142-51-C	2	RHR B
ISI-13142-51-D	1	RHR B
ISI-13142-52-A	5	Feedwater C & D
ISI-13142-53-A	6	Feedwater A & B
ISI-13142-62	5	Fuel Pool Emergency Cooling
ISI-13142-67	5	Fuel Pool Emergency Cooling
ISI-16	4	Jet Pump Instrument Nozzle
ISI-19	5	RX Instrument Nozzles
ISI-47	4	RCIC Pump
ISI-48	5	RHR Pumps
ISI-49	5	Core Spray Pump Supports
ISI-73880-A	4	RWCU
ISI-74209-1-A	4	Recirc. A Drain
ISI-74210-1-A	5	Recirc. B Drain
ISI-74215-A	6	Standby Liquid Control
ISI-782-A	3	RX Head Vent
ISI-782-A-A	4	RX Head Vent
ISI-786-A	7	Main Steam Condensate Leakoff
ISI-7905-32-A	4	RHR HX A
ISI-7905-32-B	4	RHR HX B
ISI-821-A	3	RX Bottom Head Drain
ISI-8292-42-A	4	HPCI Pumps
ISI-8292-48-A	0	HPCI Turbine
ISI-93268-1-A	5	CRD Scram Header A
ISI-93268-1-B	3	CRD Scram Discharge Header
ISI-93268-3-A	6	CRD Scram Header B
ISI-94699-A	3	Primary Containment & Atmospheric Control
ISI-94879-A	3	Spare Penetration X-47
ISI-94966-A	3	Primary Containment & Atmospheric Control
ISI-94966-B	3	Containment Air Purge

ISI ISOMETRIC DRAWINGS

<u>ISO #</u>	<u>REV</u>	<u>SYSTEM / DESCRIPTION</u>
CLASS 1 & 2 DRAWINGS (continued)		
ISI-97003-A	5	RHR Return Loop A
ISI-97003-B	6	RHR A
ISI-97004-A	5	RHR Return Loop B
ISI-97005-A	6	Recirc. Loop A
ISI-97005-B	5	Recirc. Manifold A
ISI-97005-C	6	Recirc. Pump A Supports
ISI-97006-A	7	Recirc Loop B
ISI-97006-B	5	Recirc. Manifold B
ISI-97006-C	7	Recirc. Pump B Supports
ISI-97007-A	5	RX Instrument Nozzle N-11B
ISI-97008-A	5	RX Instrument Nozzle N-11A
ISI-97027-A	5	RHR Equalizer
ISI-105531-A	3	Standby Gas Treatment & RX Plenum
ISI-158074-A	4	Torus Hard Pipe Vent
CLASS 3 DRAWINGS		
ND-ISI-100	2	RHR Service Water
ND-ISI-101	2	RHR Service Water
ND-ISI-102	1	RHR Service Water
ND-ISI-103	2	RHR Service Water
ND-ISI-104	1	RHR Service Water
ND-ISI-105	1	RHR Service Water
ND-ISI-106	2	RHR Service Water
ND-ISI-107	2	RHR Service Water
ND-ISI-108	2	RHR Service Water
ND-ISI-109	2	RHR Service Water
ND-ISI-110	1	RHR Service Water
ND-ISI-111	3	RHR Service Water
ND-ISI-123	2	RHR Service Water
ND-ISI-141	-	Deleted, system eliminated
ND-ISI-142	-	Deleted, system eliminated
ND-ISI-144	-	Deleted, system eliminated
ND-ISI-145	-	Deleted, system eliminated



ISI ISOMETRIC DRAWINGS

<u>ISO #</u>	<u>REV</u>	<u>SYSTEM / DESCRIPTION</u>
CLASS MC DRAWINGS		
ISI-8291-76	0	Class MC Supports
1.5-81	1	Downcomer Restraints
1.5-82	1	Vent Line & Header Restraints
NH-95932-A	1	Ring Header Seismic Restraints
NH-95932-B	1	Ring Header Seismic Restraints
NH-95932-C	1	Ring Header Seismic Restraints
NH-95932-D	1	Ring Header Seismic Restraints
NX-8291-34-A	1	Vent Line & Header
NX-8291-34-C	0	Downcomer, Vent Line & Header Supports
NON-CODE AUGMENTED		
NC-ISI-37	4	RCIC Feedwater
NC-ISI-51	2	CRD to RWCU


ISI INDEX KEY


----- INDICATES NDE REQUIRED
 _____ INDICATES NO NDE REQUIRED

 OR  ASME CODE CLASS 1

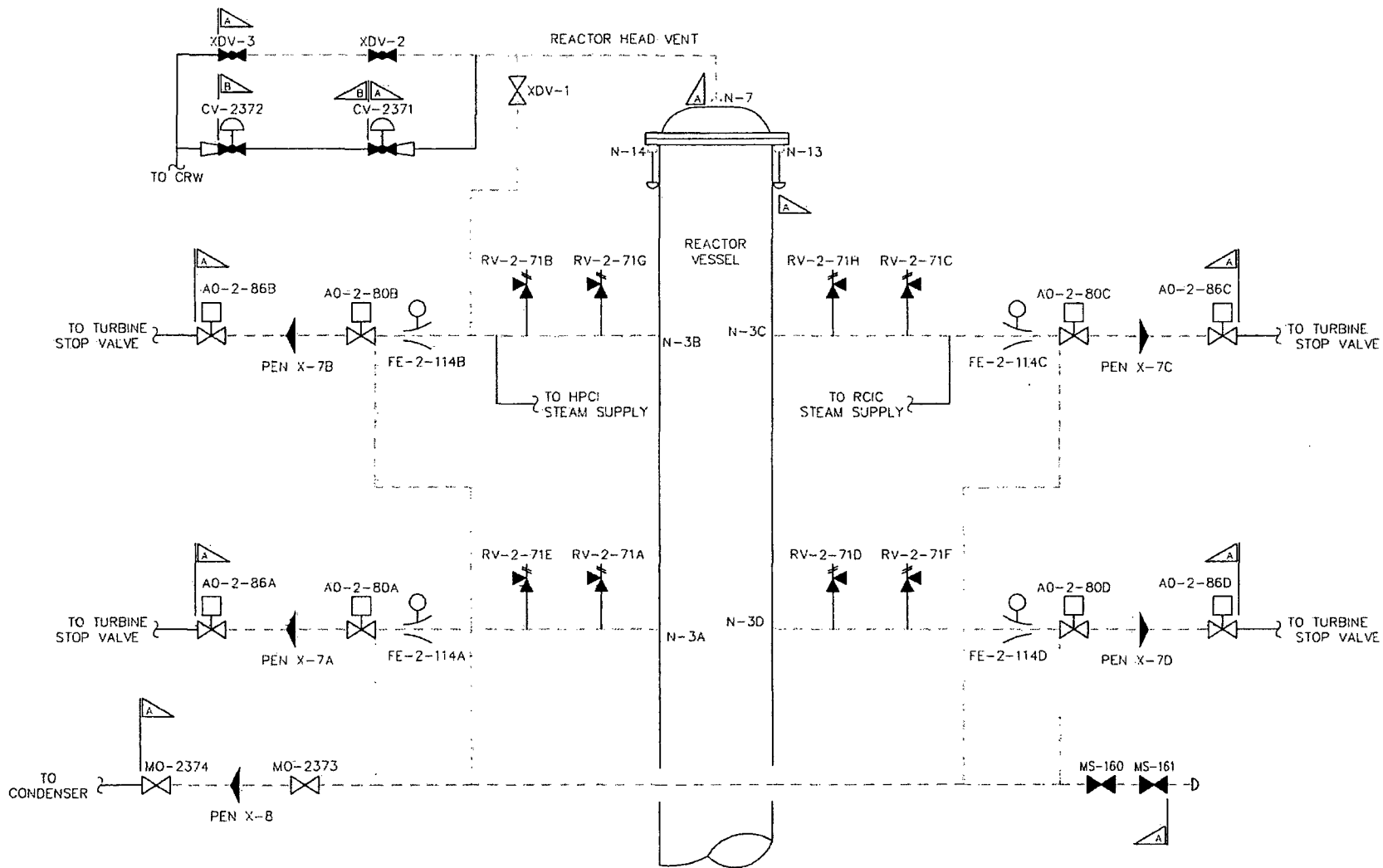
 OR  ASME CODE CLASS 2

 OR  ASME CODE CLASS 3

 ASME SAFETY RELATED COMPONENT BUT CANNOT BE CLASSIFIED UNDER REG. GUIDE 1.26 CRITERIA.

 ASME NON SAFETY RELATED

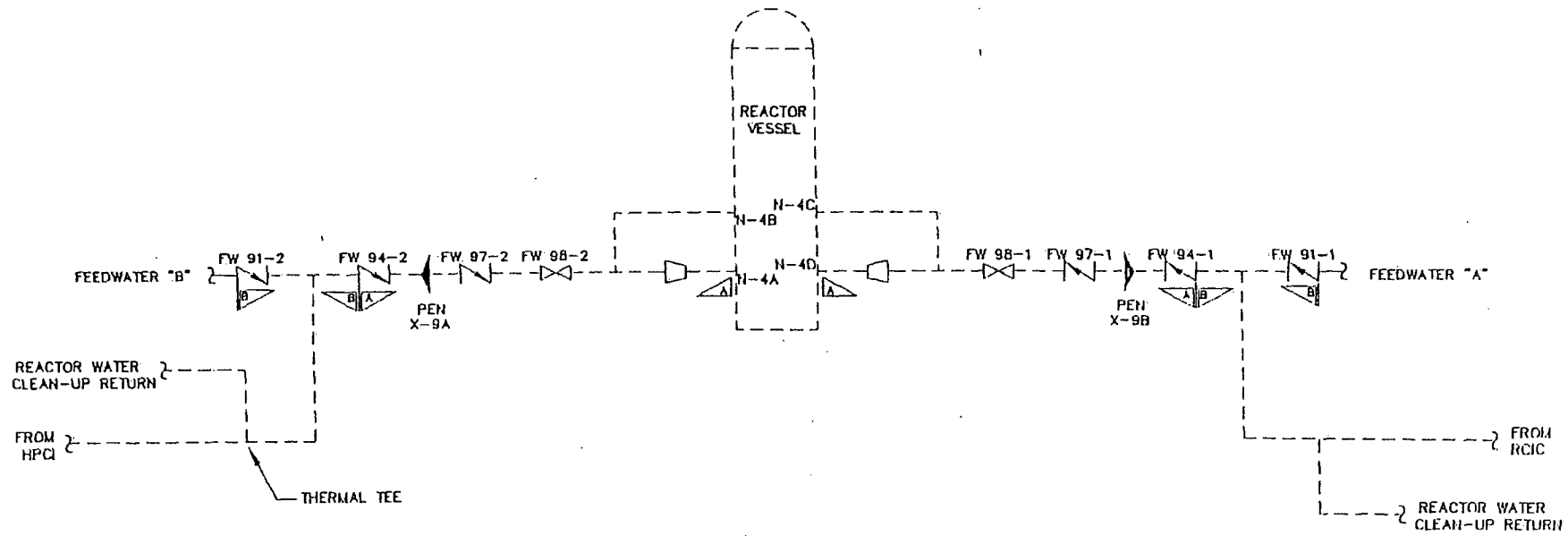
REF:	FILE NO:
NSP (M&SP) - ISI INDEX KEY	
DWN: TJH	CHKD: <i>MM</i> APPD: <i>DM</i>
SYSTEM:	
LINE:	
DWG: 1.5-1	REV: 0



REF: NH-36241

FILE NO: 02

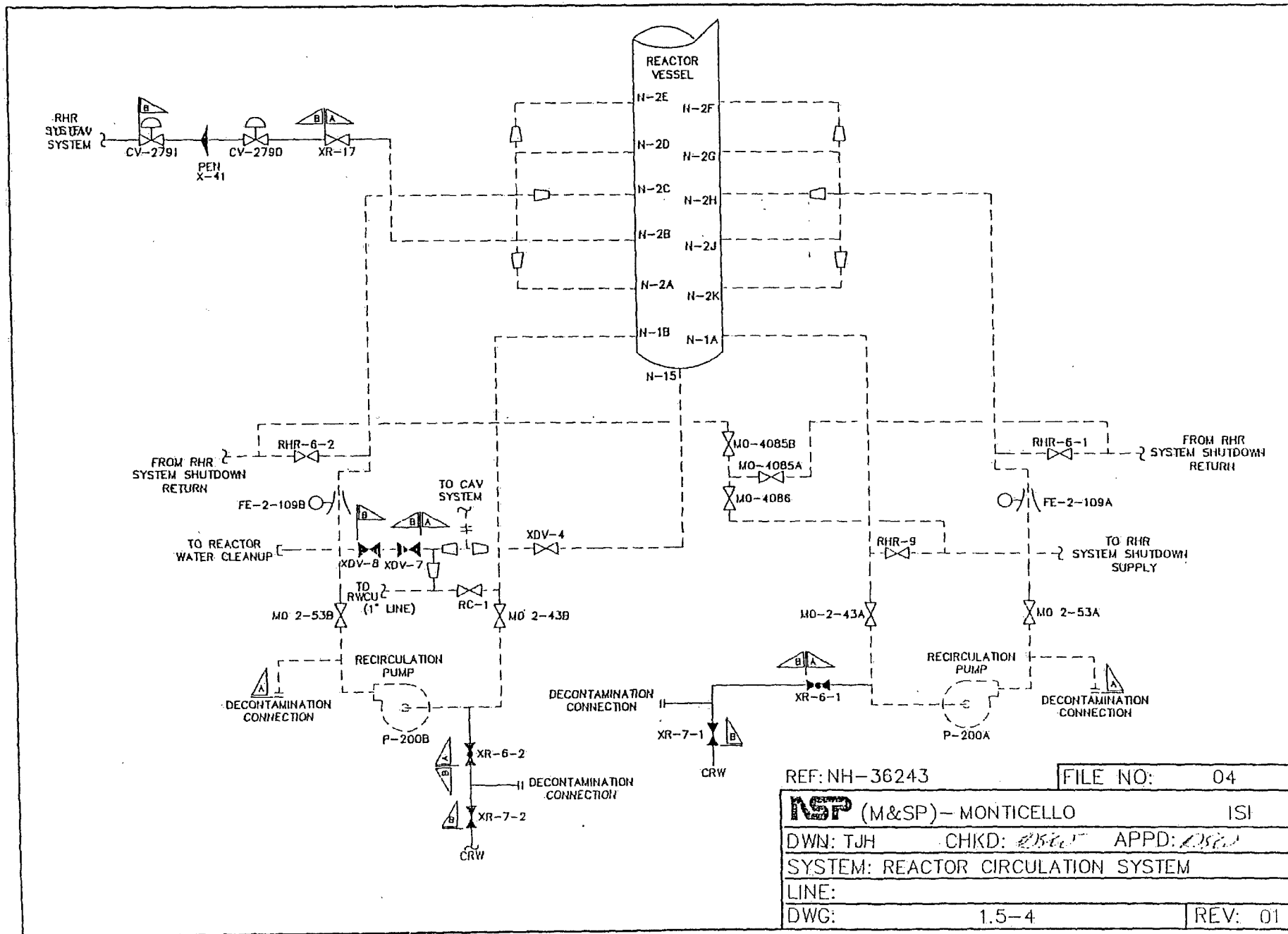
NSP	MONTICELLO	ISI
DWN: TJH	CHKD: <i>[Signature]</i>	APPD: RFD
SYSTEM: MAIN STEAM SYSTEM		
LINE:		
DWG: 1.5-2	REV: 03	



REF: NH-36241

FILE NO:

NSP (M&SP) - MONTICELLO		ISI
DWN: TJH	CHKD: <i>TJM</i>	APPD: <i>[Signature]</i>
SYSTEM: FEEDWATER SYSTEM		
LINE:		
DWG:	1.5-3	REV: 02



REF: NH-36243

FILE NO: 04

NSP (M&SP) - MONTICELLO ISI

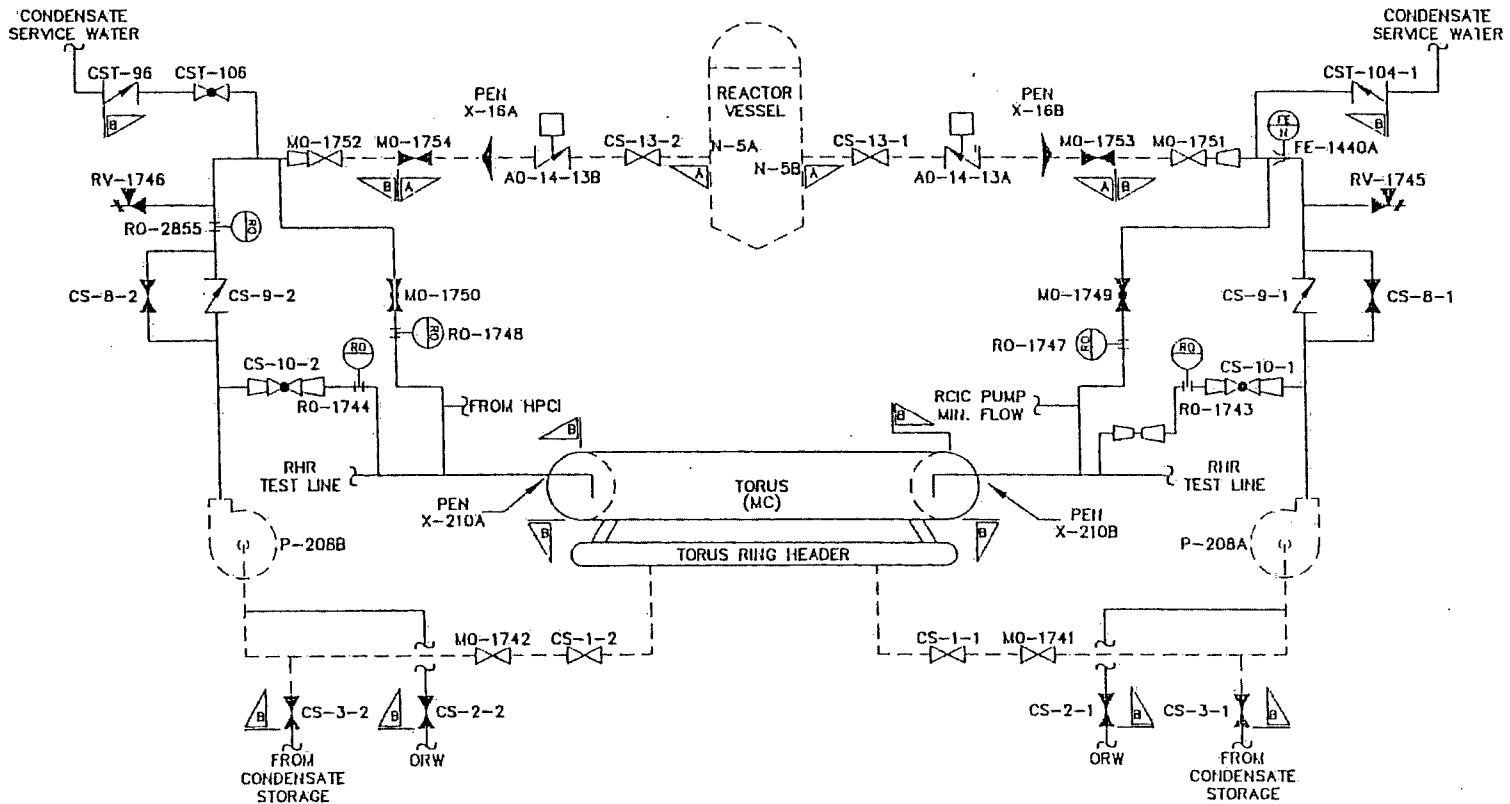
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SYSTEM: REACTOR CIRCULATION SYSTEM

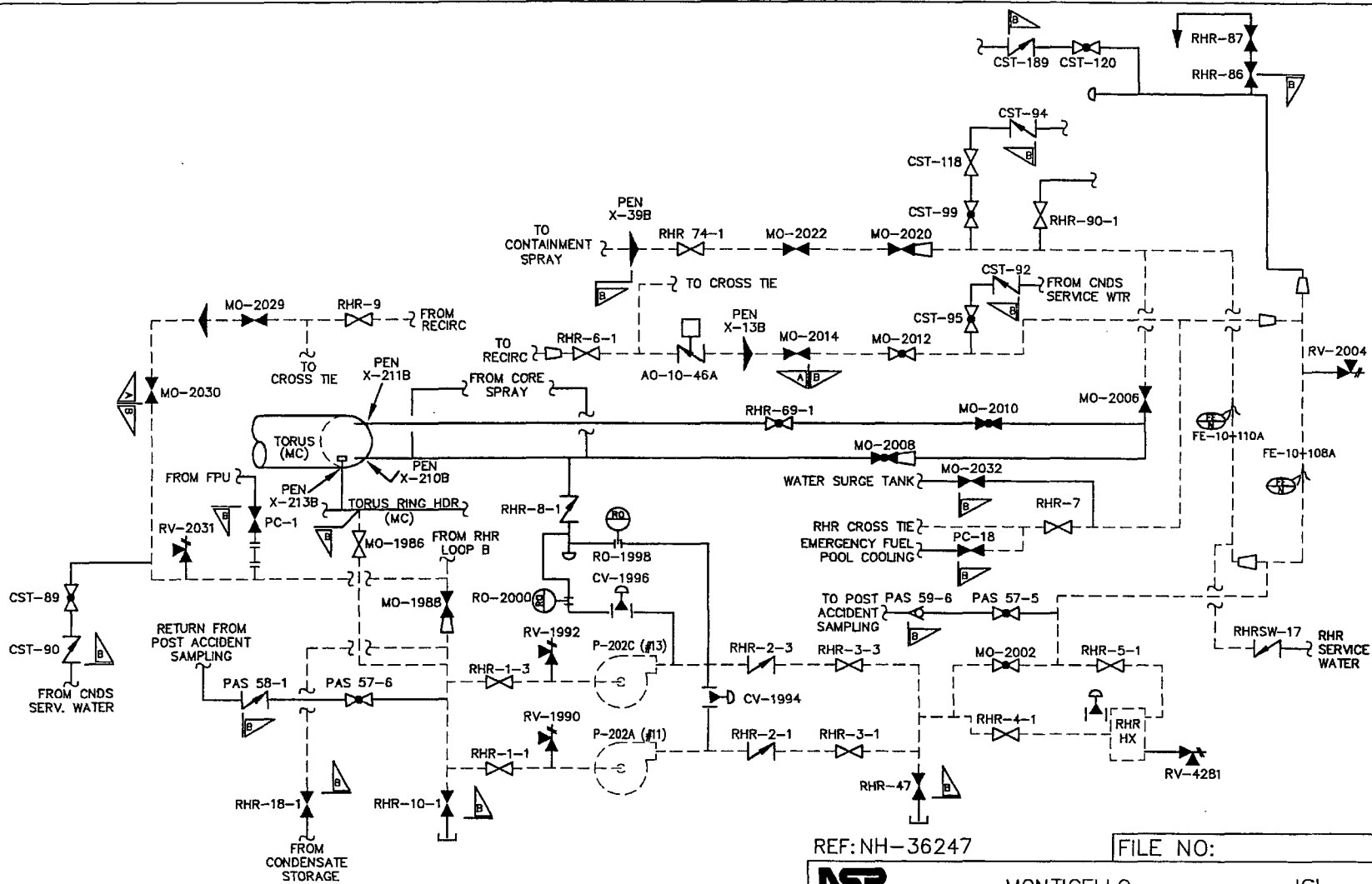
LINE:

DWG: 1.5-4

REV: 01



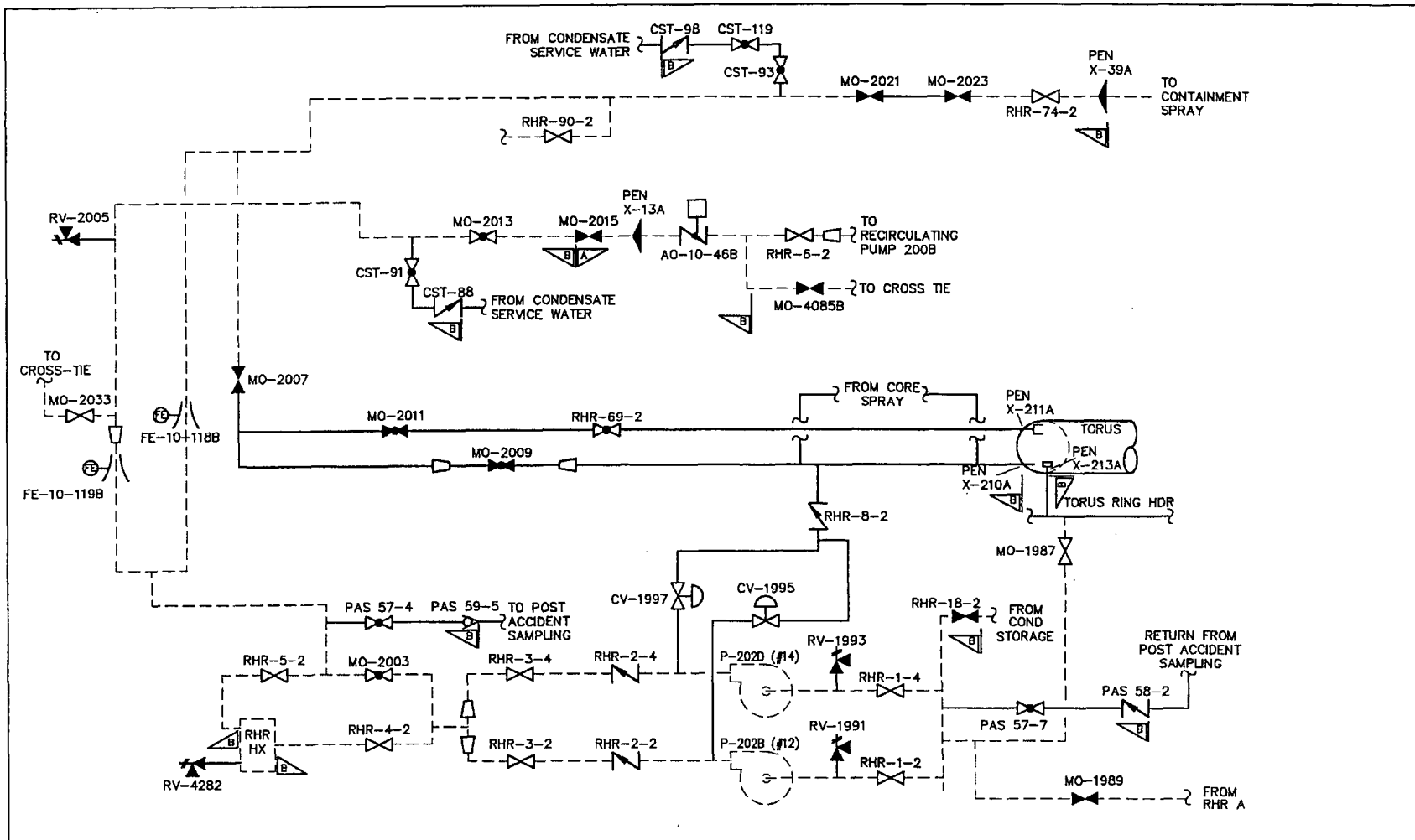
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SYSTEM: CORE SPRAY SYSTEM	
LINE:	
DWG: 1.5-5	REV: 03



REF: NH-36247

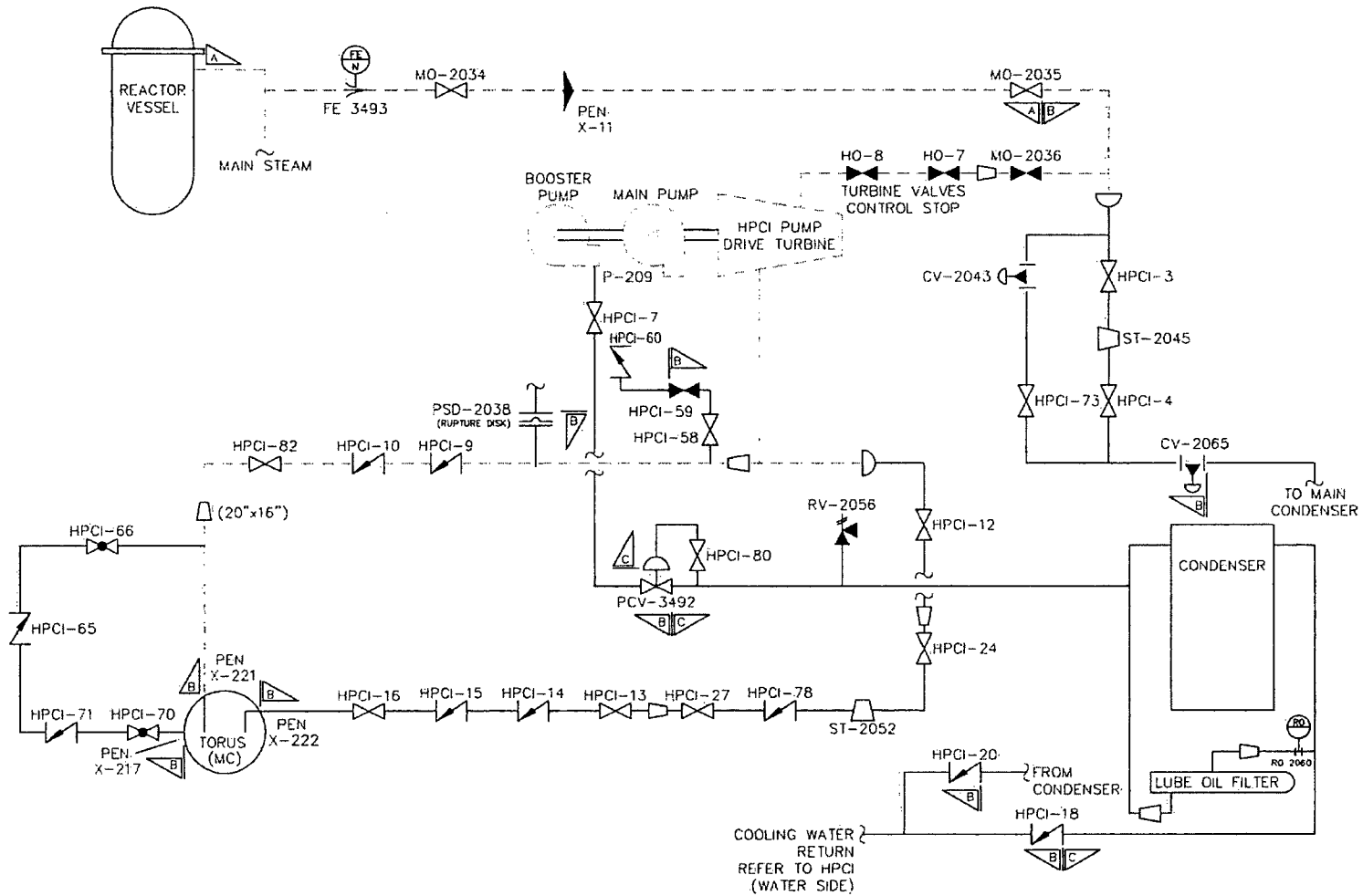
FILE NO:

NSP	MONTICELLO	ISI
DWN: JJP	CHKD: <i>JB</i>	APPD: <i>TMJ</i>
SYSTEM: RESIDUAL HEAT REMOVAL SYSTEM LOOP A		
LINE:		
DWG:	1.5-6	REV: 04



REF: NH-36246 FILE NO:

NSP	MONTICELLO	ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>JJP</i>
SYSTEM: RESIDUAL HEAT REMOVAL SYSTEM LOOP B		
LINE:		
DWG:	1.5-7	REV: 05



REF: NH-36249

FILE NO:

NSP

MONTICELLO

ISI

DWN: TJH

CHKD: *TJH*

APPD: *RAJ*

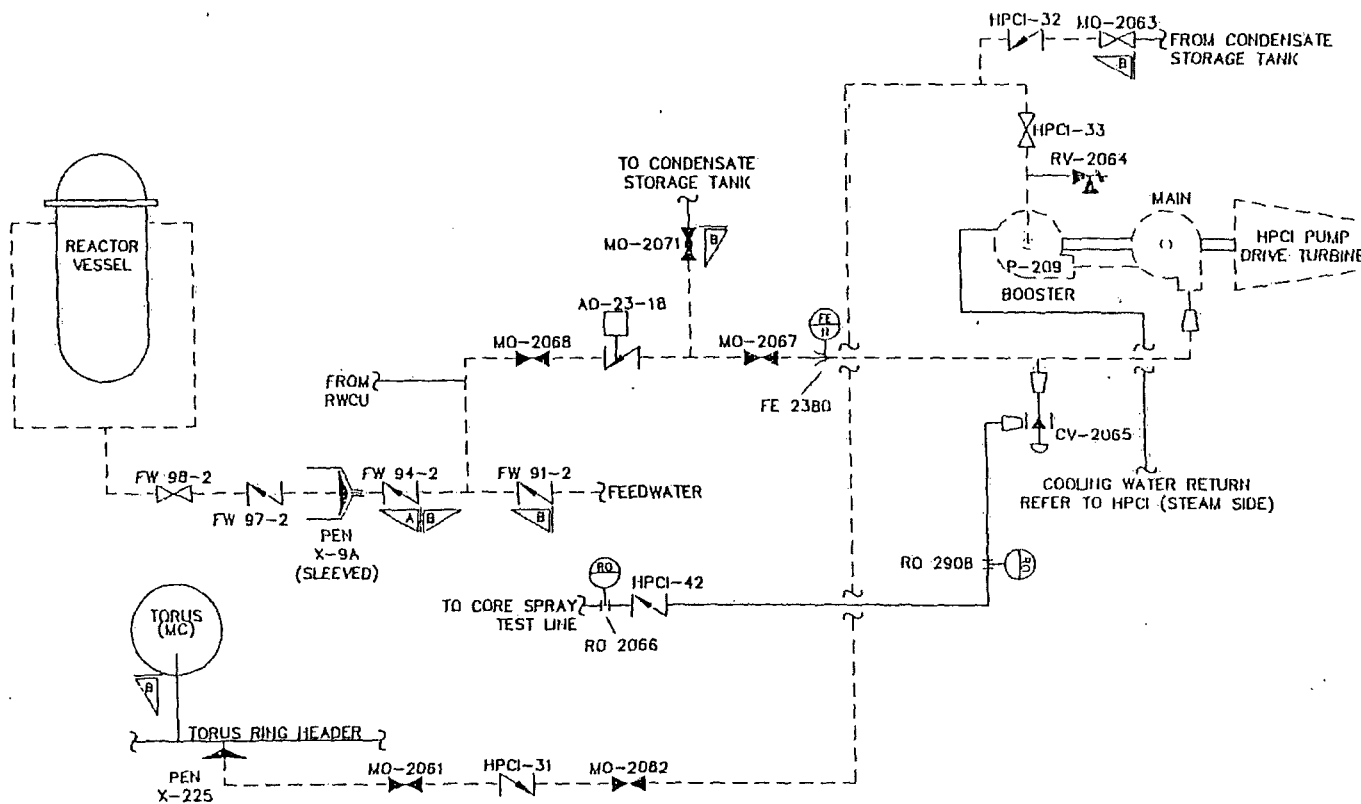
SYSTEM: HP COOLANT INJECTION SYS. (STEAM SIDE)

LINE:

DWG:

1.5-8

REV: 03



REF: NH-36250

FILE NO:

NSP (M&SP) - MONTICELLO

ISI

DWN: TJH

CHKD: RAD

APPD: *Deer*

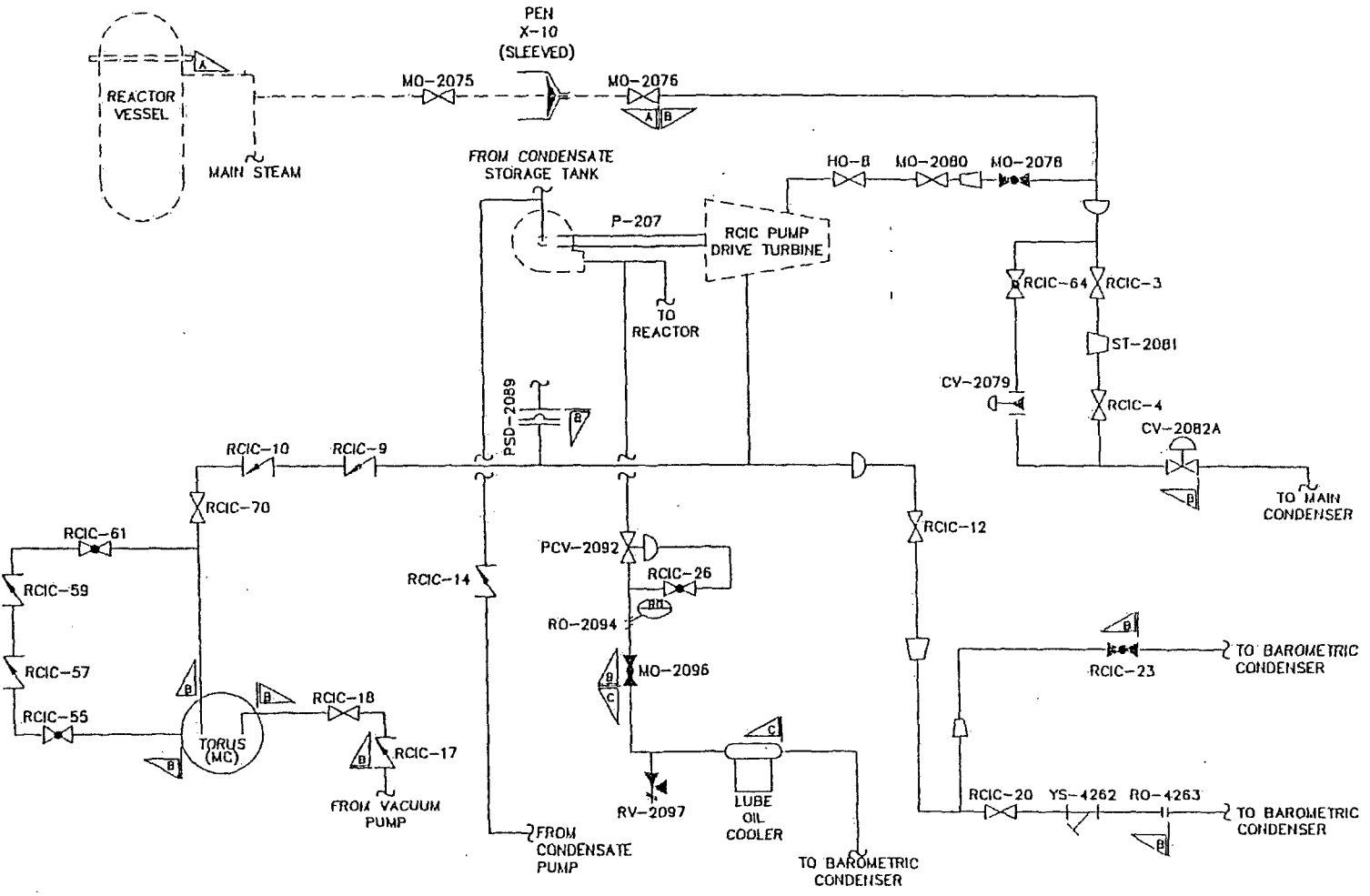
SYSTEM: HP COOLANT INJECTION SYS. (WATER SIDE)

LINE:

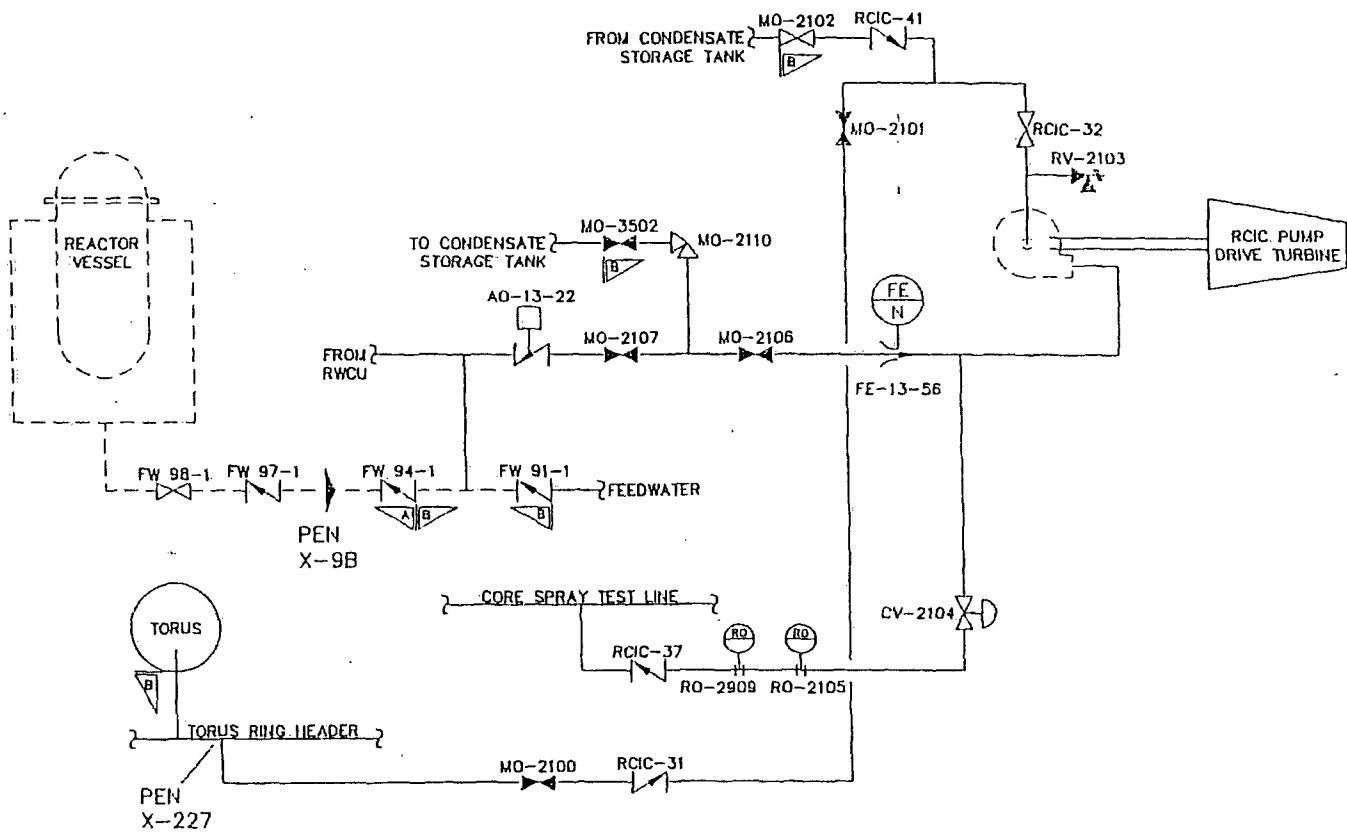
DWG:

1.5-9

REV: 02



REF: NH-36251	FILE NO:
NSP (M&SP) - MONTICELLO ISI	
DWN: TJH	CHKD: TJK APPD: <i>[Signature]</i>
SYSTEM: RX CORE ISOLATION COOLING (STEAM SIDE)	
LINE:	
DWG: 1.5-10	REV: 02



REF: NH-36252

FILE NO:

NSP (M&SP) - MONTICELLO ISI

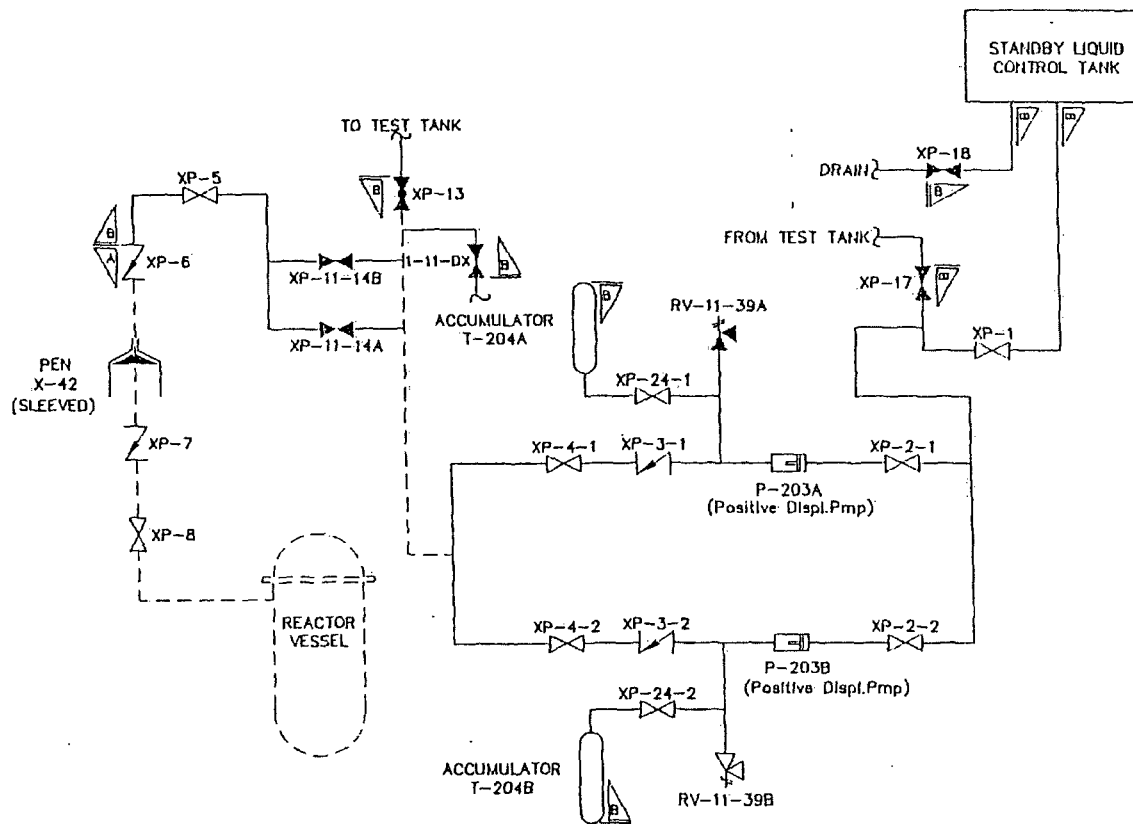
DWN: TJH CHKD: TAD APPD: *[Signature]*

SYSTEM: REACTOR CORE ISOLATION COOLING (WATER SIDE)

LINE:

DWG: 1.5-11

REV: 02



REF: NH-36253

FILE NO:

NSP (M&SP) - MONTICELLO

ISI

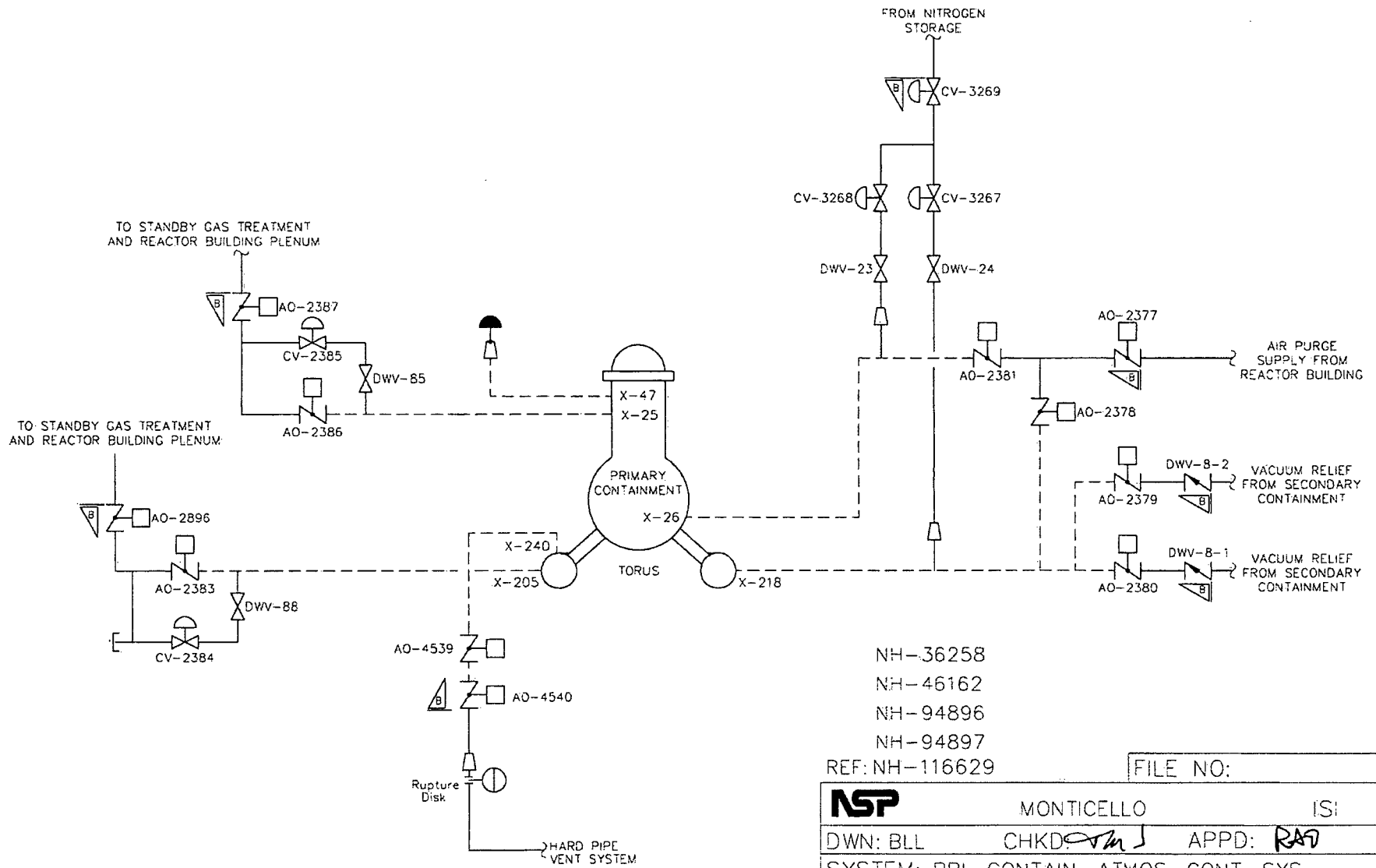
DWN: TJH CHKD: *RAV* APPD: *RAV*

SYSTEM: STANDBY LIQUID CONTROL SYSTEM

LINE:

DWG: 1.5-12

REV: 02



NH-36258

NH-46162

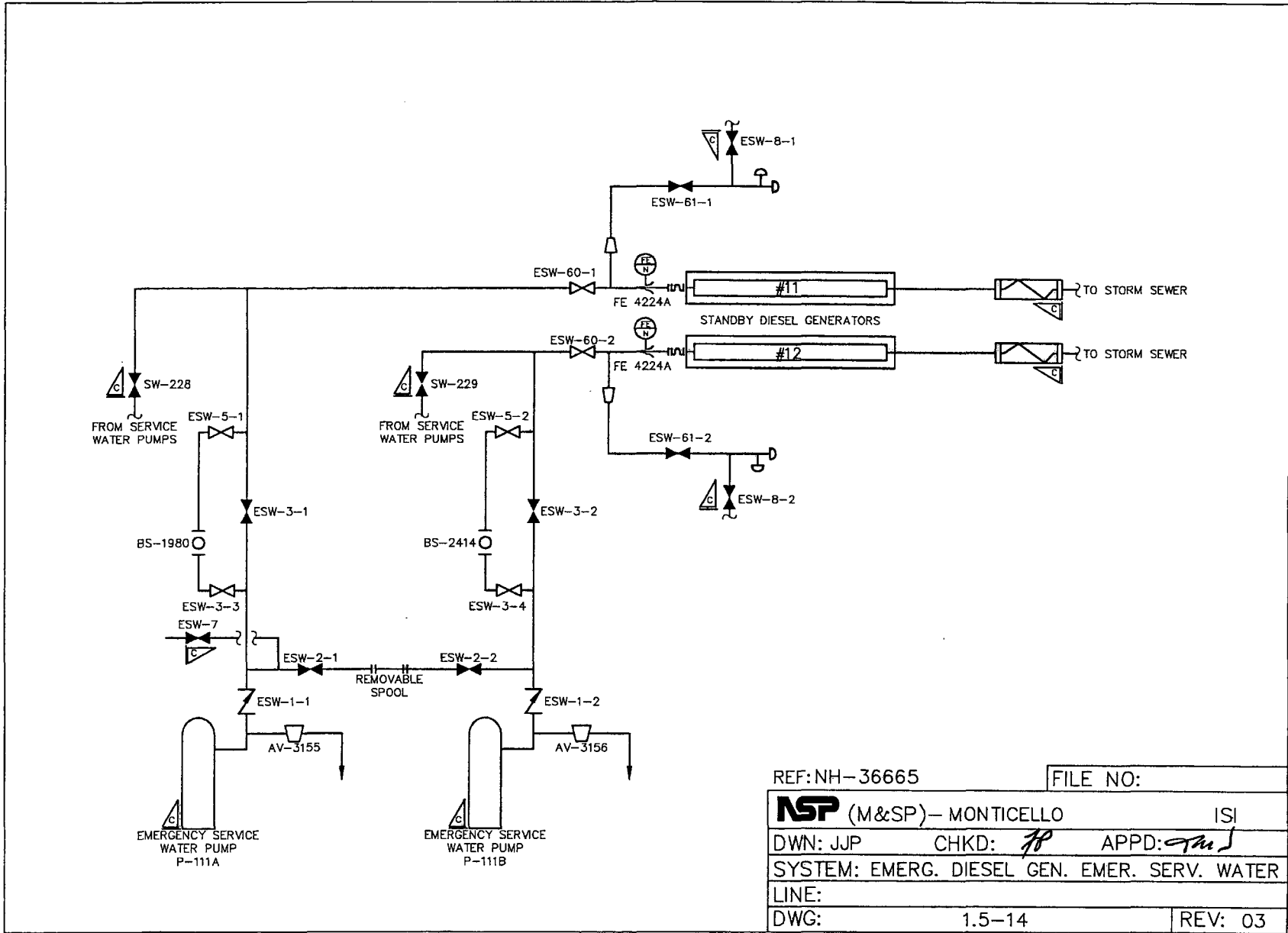
NH-94896

NH-94897

REF: NH-116629

FILE NO:

NSP		MONTICELLO	ISI
DWN: BLL	CHKD: <i>sm</i>	APPD: <i>RAJ</i>	
SYSTEM: PRI. CONTAIN. ATMOS. CONT. SYS.			
LINE:			
DWG:	1.5-13	REV:	03



REF: NH-36665

FILE NO:

NSP (M&SP) - MONTICELLO ISI

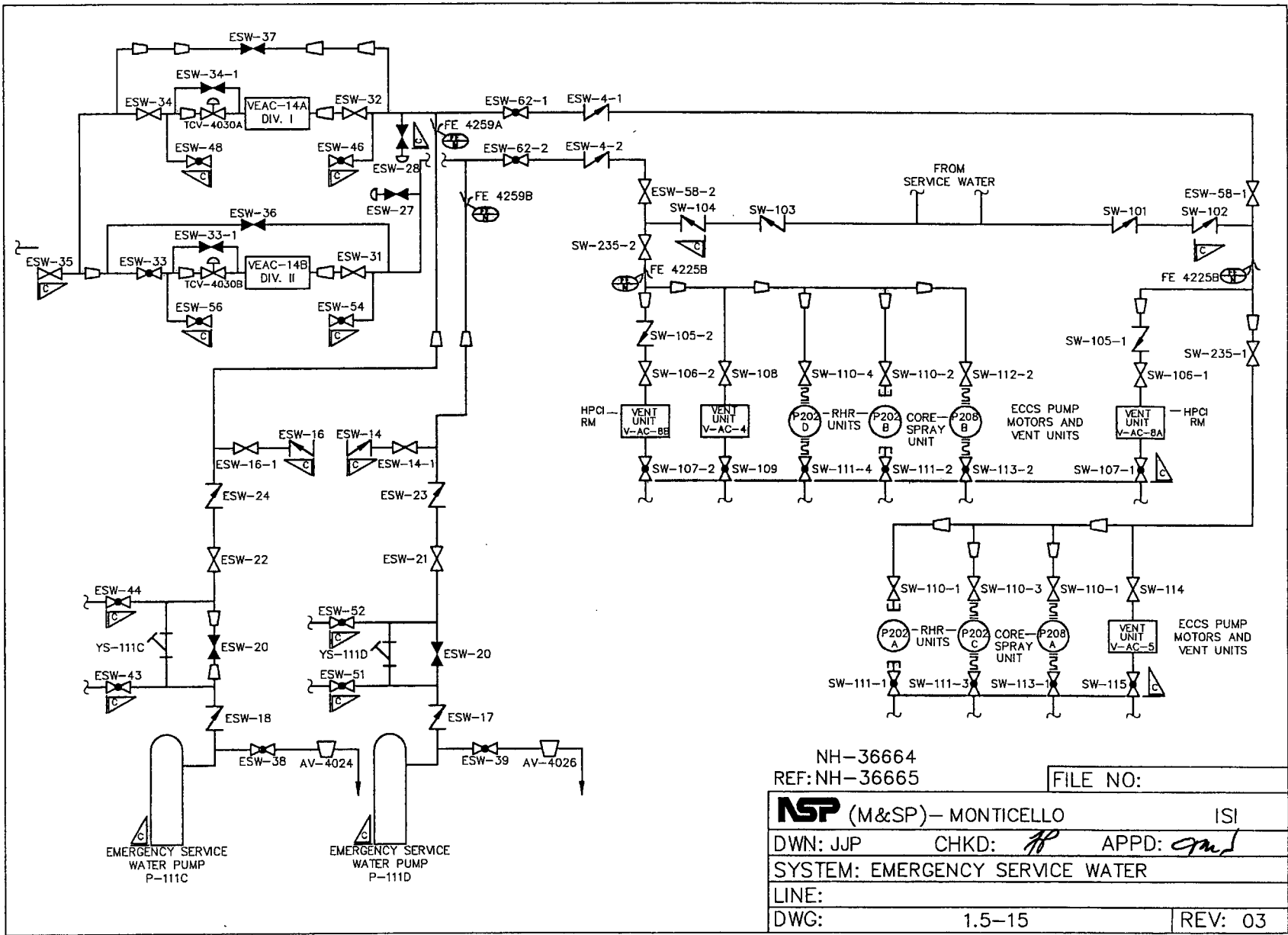
DWN: JJP CHKD: *JP* APPD: *amj*

SYSTEM: EMERG. DIESEL GEN. EMER. SERV. WATER

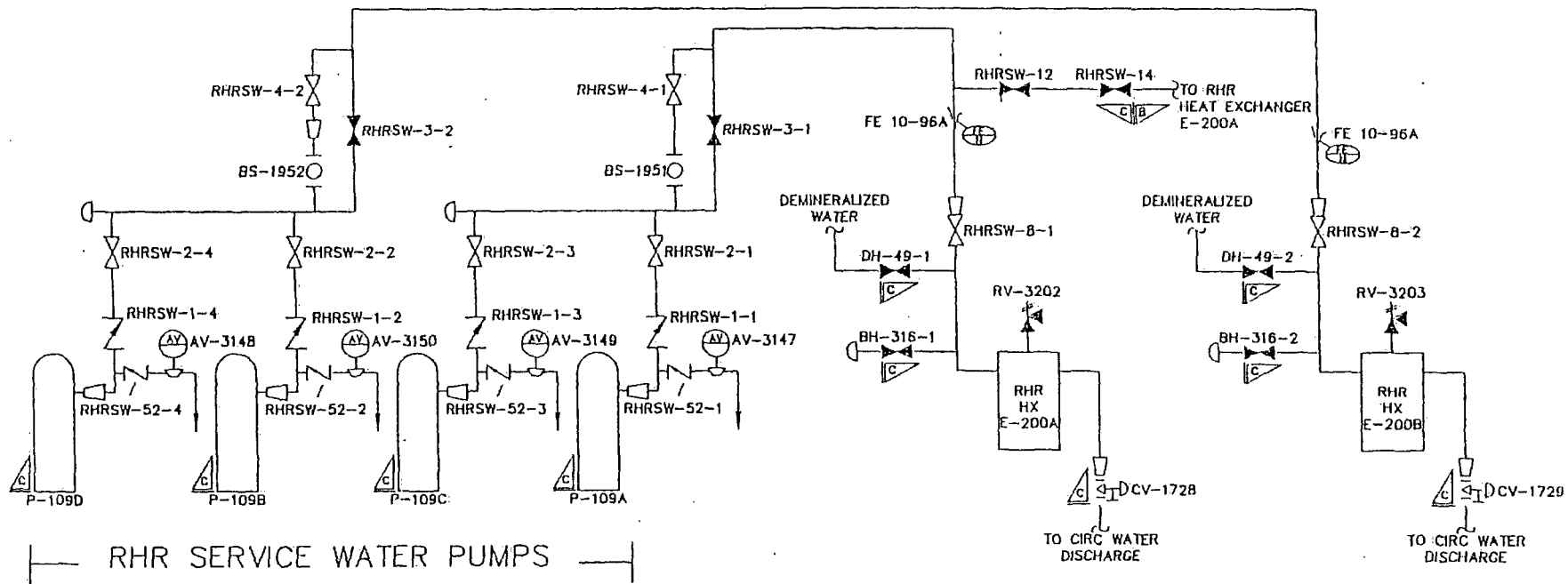
LINE:

DWG: 1.5-14

REV: 03



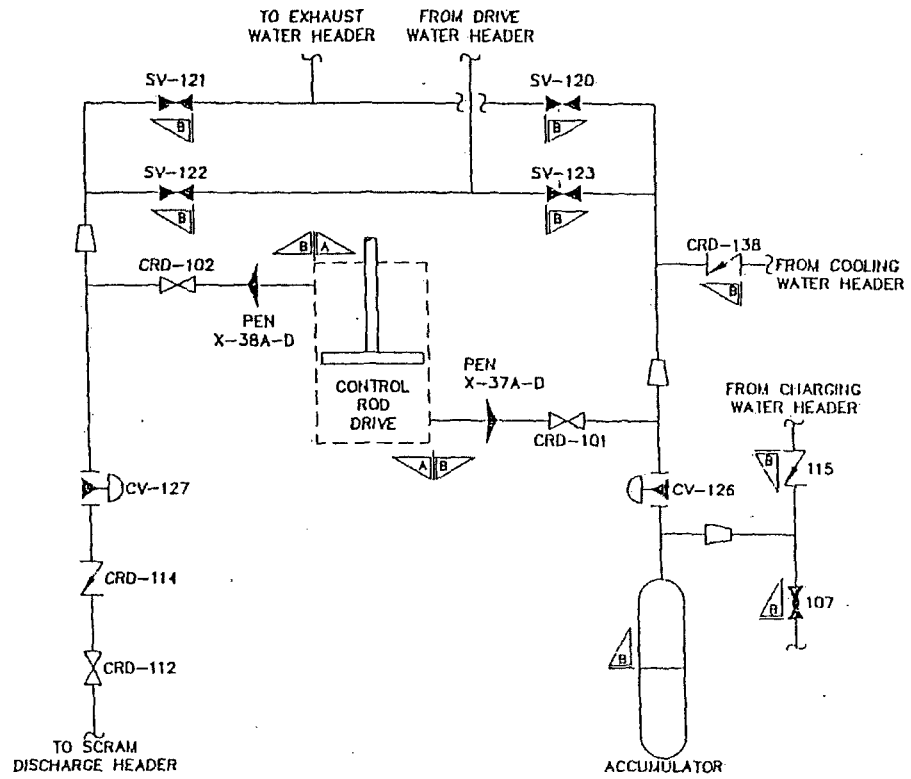
NH-36664		FILE NO:	
REF: NH-36665			
NSP (M&SP) - MONTICELLO		ISI	
DWN: JJP	CHKD: <i>JP</i>	APPD: <i>gml</i>	
SYSTEM: EMERGENCY SERVICE WATER			
LINE:			
DWG:	1.5-15	REV: 03	



NH-36664
 REF: NH-36665

FILE NO:

NSP (M&SP) - MONTICELLO		ISI
DWN: TJH	CHKD: <i>WAD</i>	APPD: <i>WAD</i>
SYSTEM: RHR SERVICE WATER		
LINE:		
DWG:	1.5-16	REV: 02



REF: NH-36245

FILE NO:

NSP (M&SP) - MONTICELLO ISI

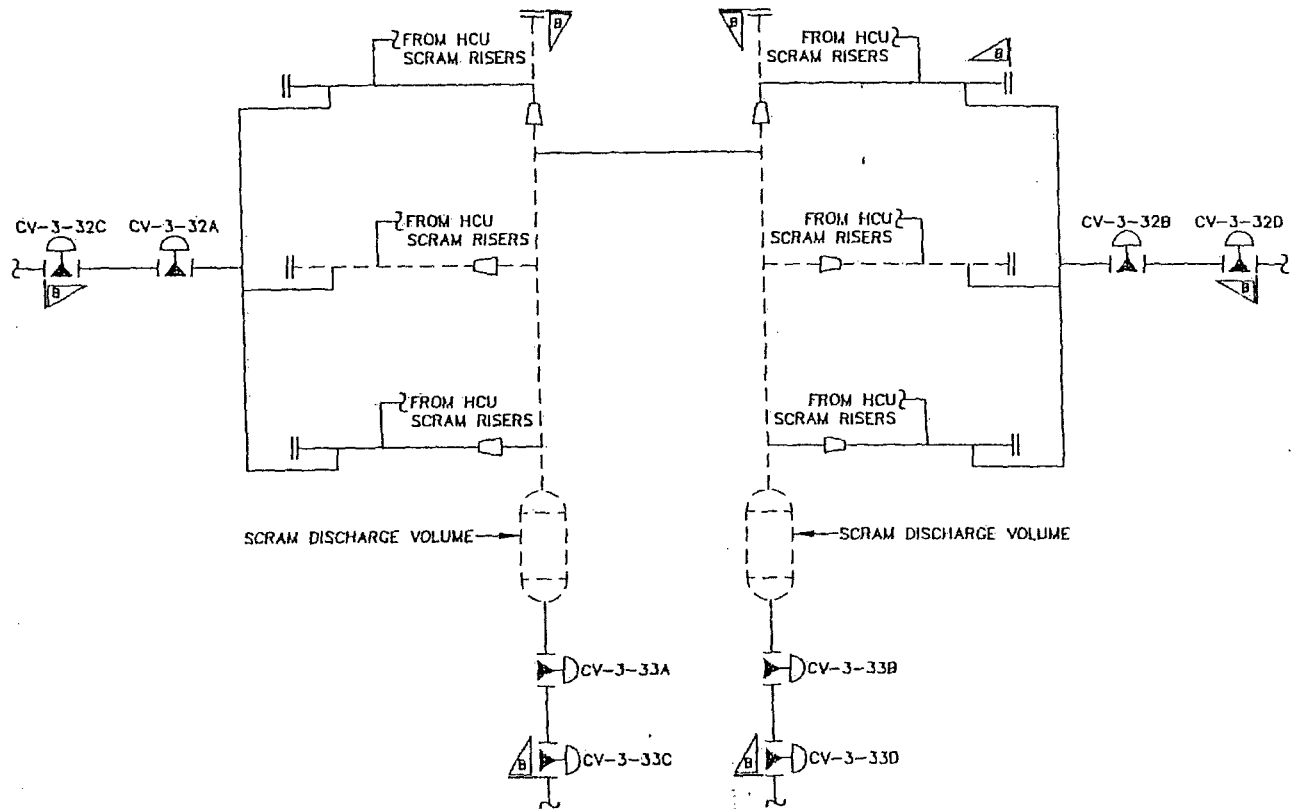
DWN: TJH CHKD: F. (L) APPD: *[Signature]*

SYSTEM: HYDRAULIC CONTROL UNIT

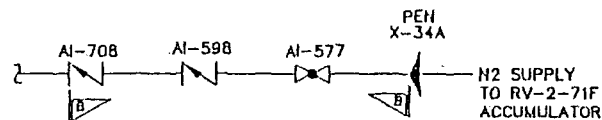
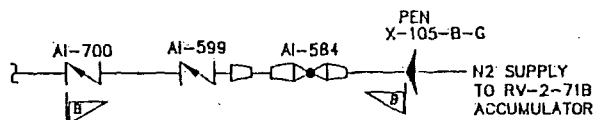
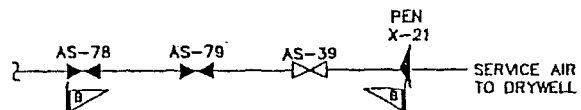
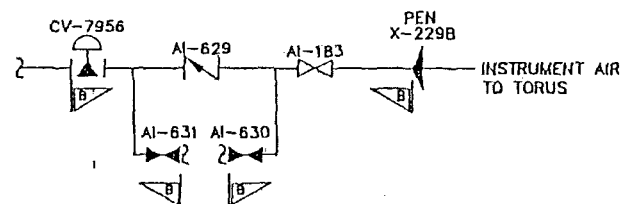
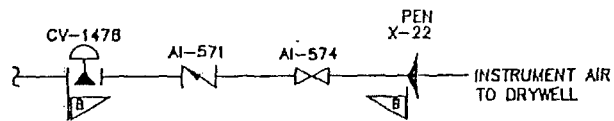
LINE:

DWG: 1.5-17

REV: 03



REF: NH-36245	FILE NO: 18
ASP (M&SP) - MONTICELLO ISI	
DWN: TJH	CHKD: 1-2-83 APPD: [Signature]
SYSTEM: CONT. ROD DRIVE SYS. (SCRAM DISCH. PIPING)	
LINE:	
DWG: 1.5-18	REV: 02

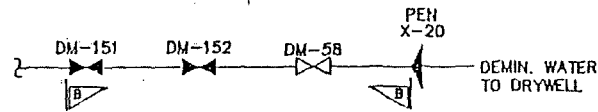


NH-36049-4
 NH-36049-10
 NH-36049-12

REF: NH-36049-14

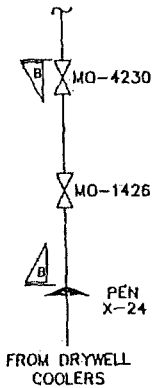
FILE NO: 19

ISP (M&SP) - MONTICELLO		ISI
DWN: CADWorks CHKD: <i>[Signature]</i>		APPD: <i>[Signature]</i>
SYSTEM: COMPRESSED AIR SYSTEM		
LINE:		
DWG:	1.5-19	REV: 01



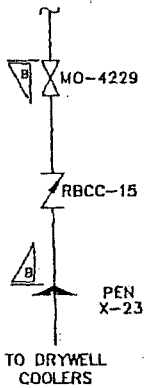
DEMIN. WATER SYSTEM

TO COOLING
WATER PUMP



FROM DRYWELL
COOLERS

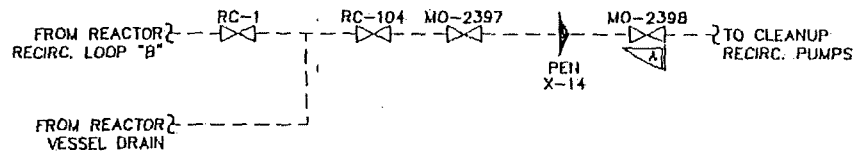
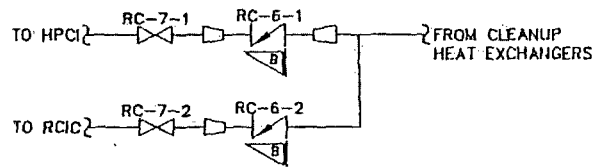
FROM REACTOR BUILDING
HEAT EXCHANGERS



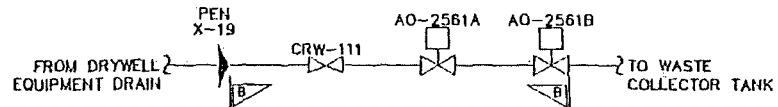
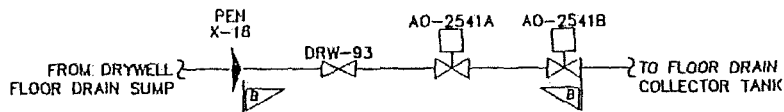
TO DRYWELL
COOLERS

REACTOR BUILDING COOLING WATER SYSTEM

NH-36039		FILE NO:	20
REF: NH-36042-2			
ISP (M&SP) - MONTICELLO		ISI	
DWN: TJH	CHKD: <i>M.L.H.</i>	APPD:	<i>RSC</i>
SYSTEM: DEMIN. WATER SYSTEM & RX BLDG CW			
LINE:			
DWG:	1.5-20	REV:	02



REACTOR WATER CLEAN-UP SYSTEM.

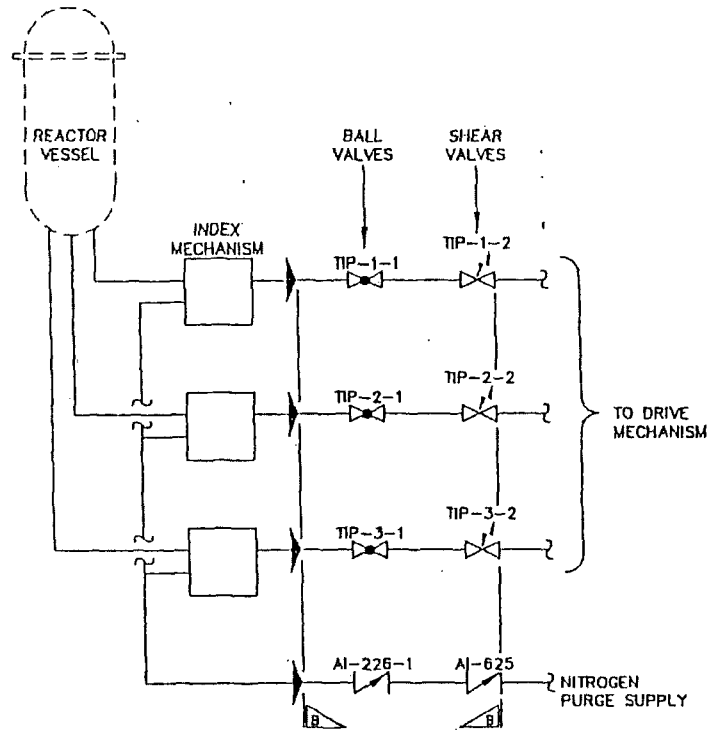


LIQUID RADWASTE

NH-36043
 NH-36044
 REF: NH-36254

FILE NO: .

NSP (M&SP) - MONTICELLO		ISI
DWN: TJH	CHKD: RWD	APPD: <i>[Signature]</i>
SYSTEM: RX WTR CLEAN-UP & LIQUID RADWASTE		
LINE:		
DWG:	1.5-21	REV: 02



REF:

FILE NO: 22

NSP (M&SP) - MONTICELLO ISI

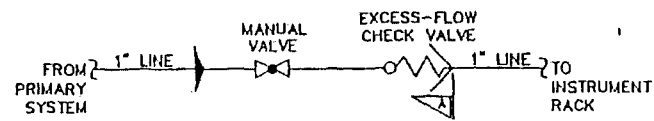
DWN: CADWorks CHKD: *ABW* APPD: *ABW*

SYSTEM: TRAVERSING IN-CORE PROBE SYSTEM

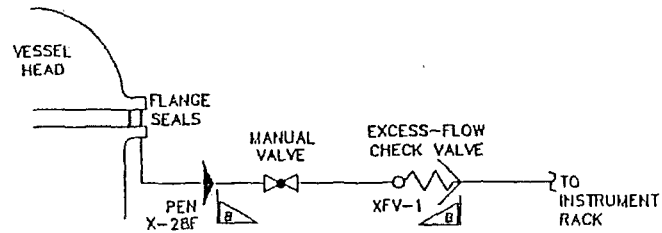
LINE:

DWG: 1.5-22

REV: 01



TYPICAL FOR EXCESS-FLOW CHECK VALVES EXCEPT
EXCESS-FLOW CHECK VALVE FOR PENETRATION X-2BF



EXCESS-FLOW CHECK VALVE
FOR PENETRATION X-2BF

NH-36241

REF: NH-36242

FILE NO: 23

NSP (M&SP) - MONTICELLO ISI

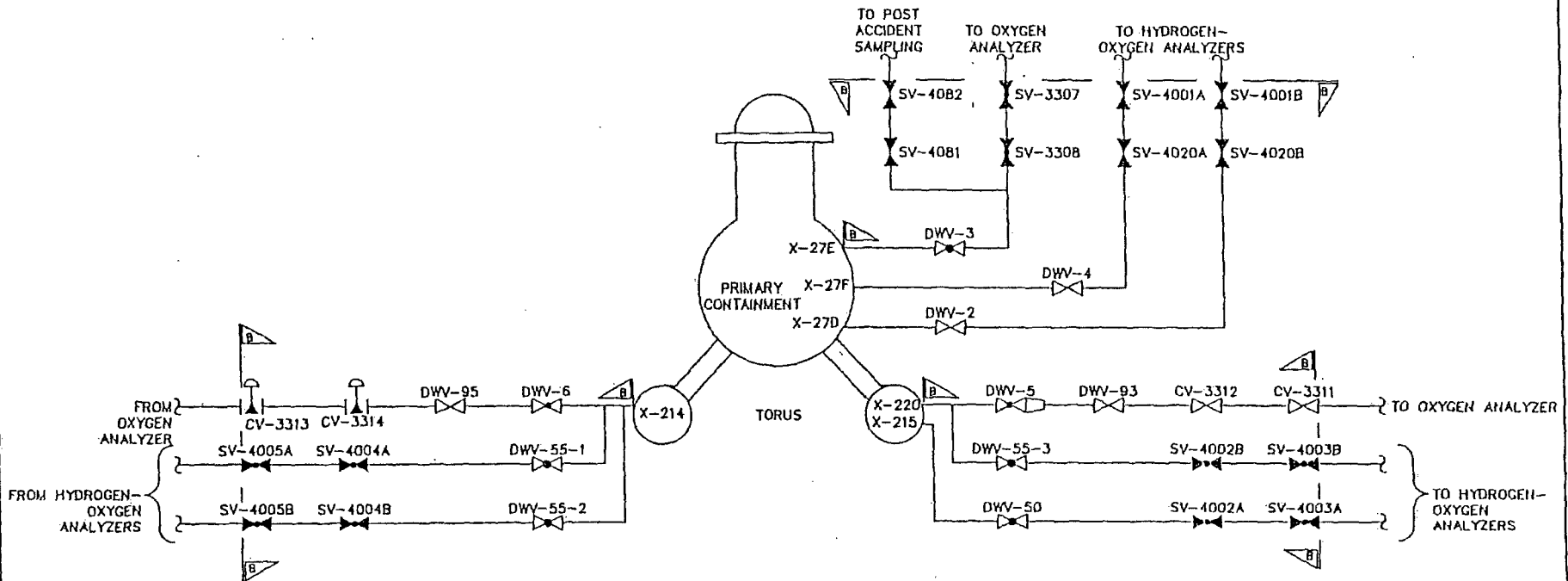
DWN: CADWorks CHKD: *R/S* APPD: *AB*

SYSTEM: EXCESS-FLOW CHECK VALVES

LINE:

DWG: 1.5-23

REV: 01



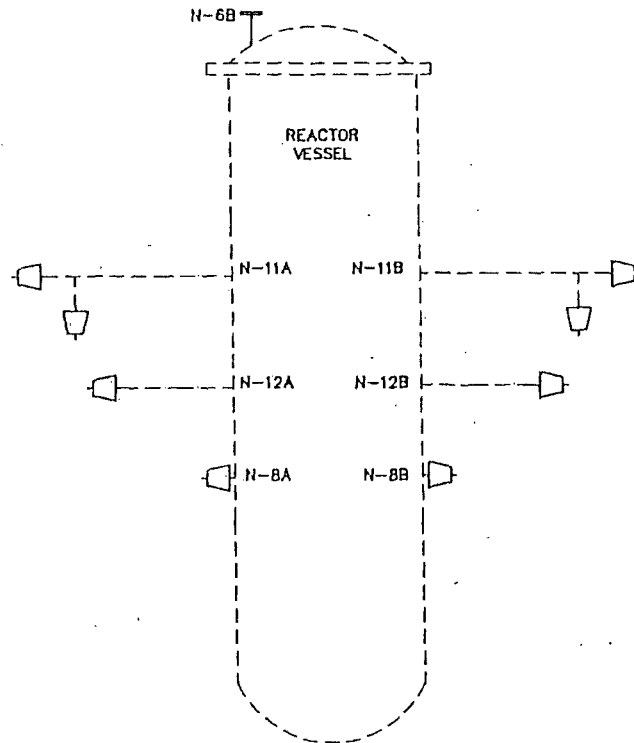
NH-46162

NH-91197

REF: NH-96042-1

FILE NO: 26

N&P (M&SP) - MONTICELLO		ISI
DWN: CADWorks CHKD: <i>R. B. ...</i> APPD: <i>1360</i>		
SYSTEM: PRIMARY CONTAINMENT SAMPLING SYSTEMS		
LINE:		
DWG:	1.5-26	REV: 01



ALL BOUNDRIES SHOWN
ARE QUALITY GROUP A

REF: NH-36242

FILE NO: 27

NSP (M&SP) - MONTICELLO ISI

DWN: CADWorks CHKD: *OSW* APPD: *OSW*

SYSTEM: REACTOR VESSEL INSTRUMENTATION

LINE:

DWG: 1.5-27

REV: 01

INTEGRAL ATTACHMENTS

ELEV. 55'-7 1/2"
BTM OF DRYER HOLD
DOWN BRACKET
C-8; C-10

ELEV. 54'-5"
TOP OF GUIDE
ROD BRACKET
C-1

ELEV. 47'-11 1/2"
TOP OF STEAM
DRYER SUPPORT
BRACKET
C-9

ELEV. 38'-10"
Q FEEDWATER
SPARGER BRKT.
C-6

ELEV. 37'-7"
Q CORESPRAY
BRACKET
C-5

ELEV. 32'-5 13/16"
Q TOP SURVEILLANCE
SAMPLE BRACKET
C-4

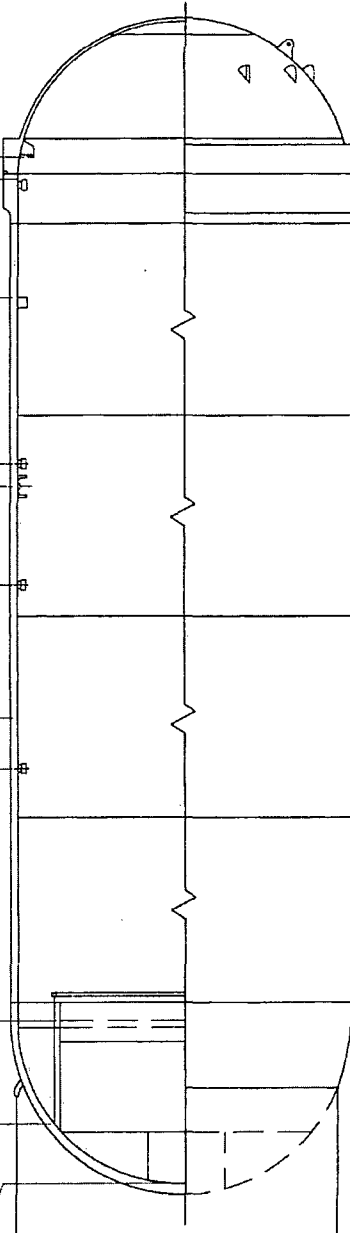
ELEV. 24'-3 1/2"
Q JET PUMP RISER
SUPPORT PADS
C-2

ELEV. 22'-7 1/2"
BOTTOM SURVEILLANCE
C-4

ELEV. 8'-3 1/2"
TOP SHROUD SUPPORT
C-3

ELEV. 3'-6"
SHROUD SUPPORT LEGS
C-7

ELEV. 0'-0"
BOTTOM HEAD DRAIN
CRD STUB TUBES



ELEVATION VIEW

NOTES:

INTERIOR ATTACHMENTS
WITHIN BELTLINE REGION
(B-N-2)

INTERIOR ATTACHMENTS
BEYOND BELTLINE REGION
(B-N-2)

CORE SUPPORT STRUCTURE
(B-N-2)

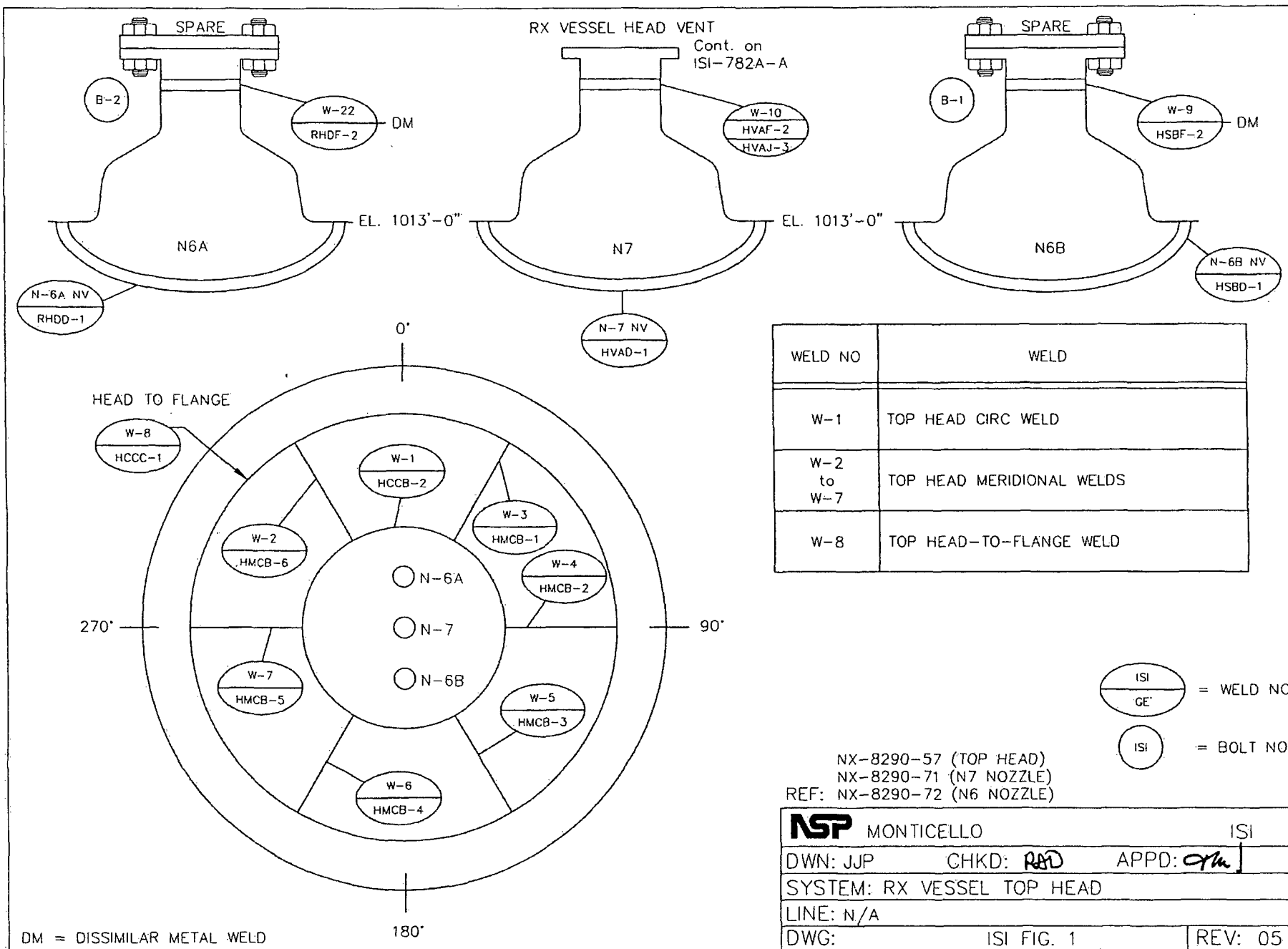
ELEV. 29'-3 1/2"
TOP OF
ACTIVE FUEL

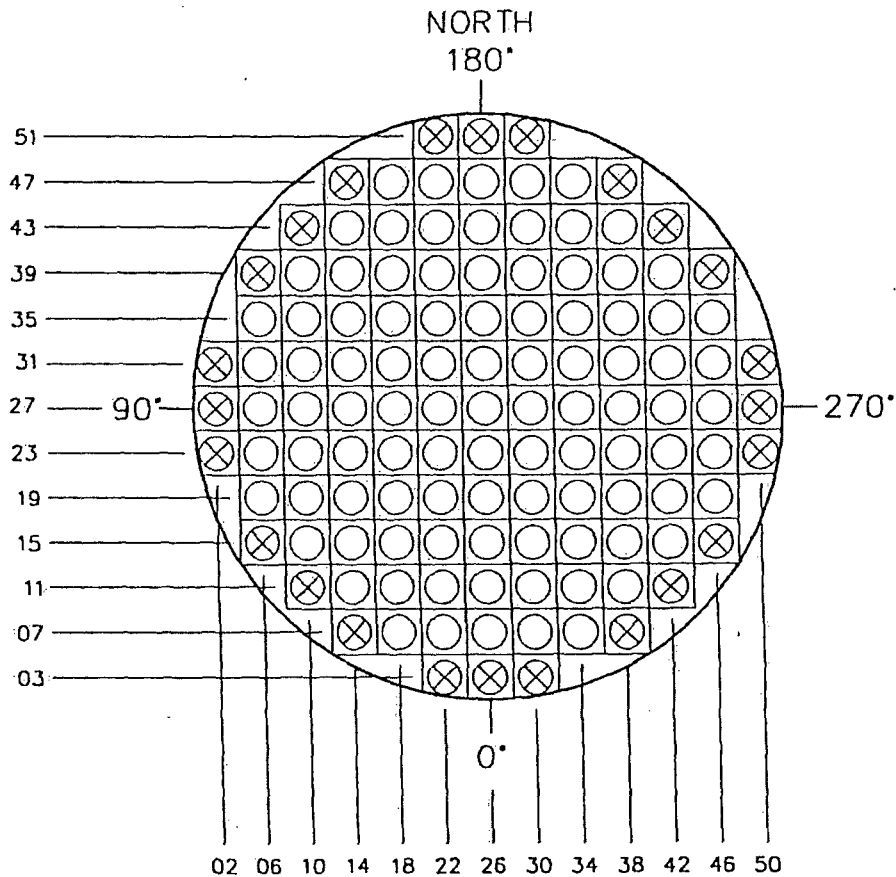
BELTLINE
REGION

ELEV. 17'-3 1/2"
BOTTOM OF
ACTIVE FUEL

REF:

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>PM</i>	APPD: <i>RSD</i>
SYSTEM: RX VESSEL INTERIOR		
LINE: N/A		
DWG:	ISI-0	REV: 04

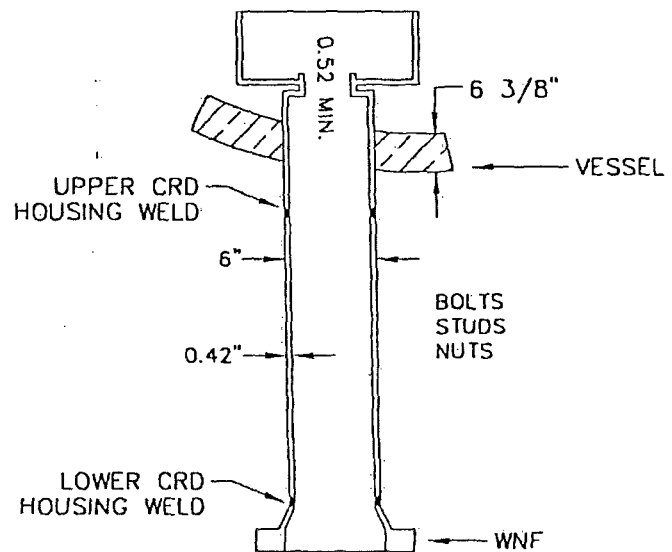




VIEW LOOKING DOWN

⊗ = PERIPHERAL CRD HOUSING

CONTROL ROD DRIVE LOCATION & HOUSING WELD
(TYPICAL)

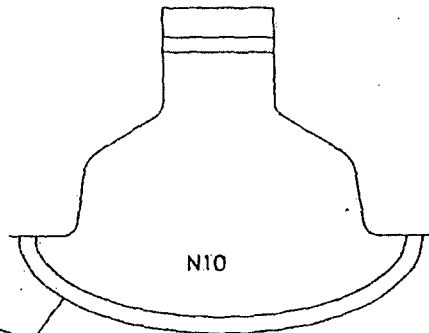


REF: NX-7831-471

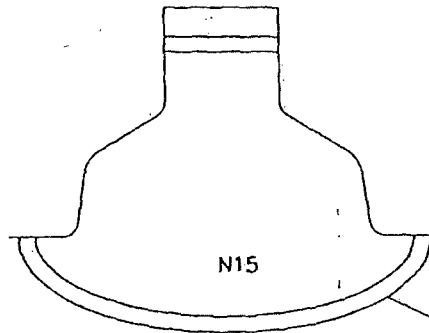
NSP MONTICELLO	ISI
DWN: MCWI	CHKD: RJD APPD: <i>DW</i>
SYSTEM: CRD LOCATION RX VESSEL	
LINE: N/A	
DWG: ISI FIG. 2	REV: 04

STANDBY LIQUID CONTROL
Cont. on ISI-74215-A

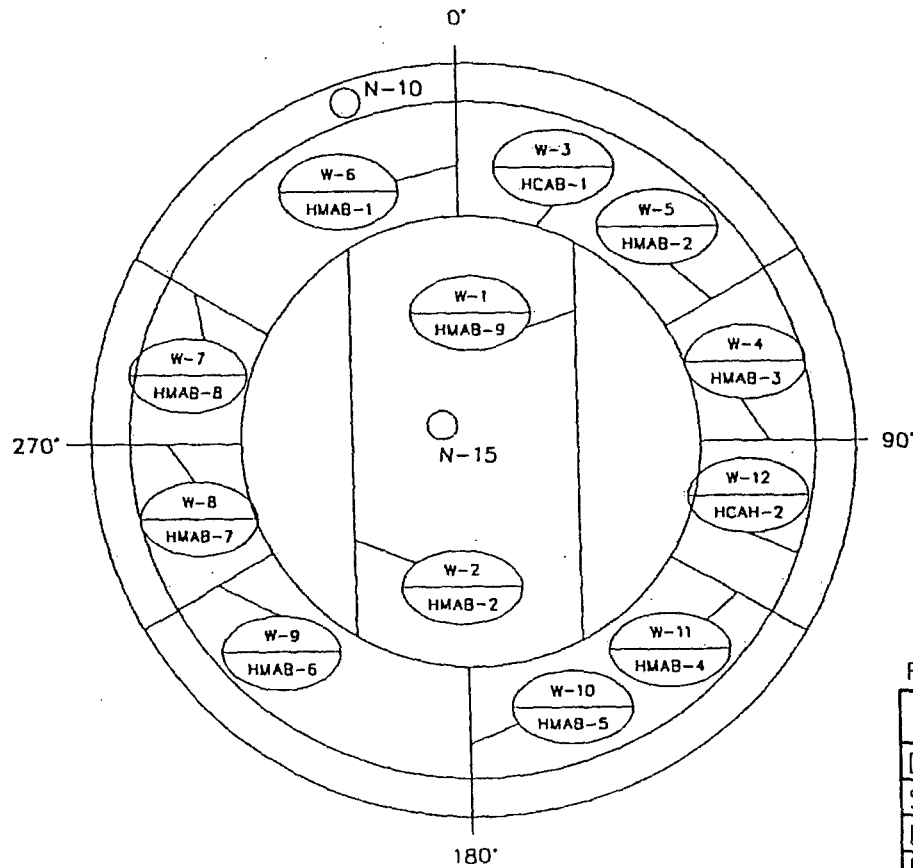
RX VESSEL BOTTOM HEAD DRAIN
Cont. on ISI-821-A



N-10 NV
CPAE-1



N-15 NV
HDAE-1



WELD NO.	WELD
W-1 W-2	BOTTOM HEAD DOLLAR PLATE SEAM WELD
W-3	BOTTOM HEAD DOLLAR PLATE TO SIDE PLATES
W-4 TO W-11	BOTTOM HEAD SIDE PLATES MERIDIONAL WELDS
W-12	BOTTOM HEAD SKIRT WELD

ISI
CONST = WELD NO.

NX-8290 (BOTTOM HEAD)
NX-8290-65 (N10 NOZZLE)
REF: NX-8290-71 (N15 NOZZLE)

NSP MONTICELLO	ISI
DWN: MCWI	CHKD: <i>RSD</i> APPD: <i>DSV</i>
SYSTEM: RX VESSEL BOTTOM HEAD	
LINE: N/A	
DWG:	ISI FIG. 3
	REV: 03

RX EL. 52'-5 1/4"

1001'-10 1/4"

COURSE 4

RX EL. 41'-5 11/16"

990'-10 11/16"

COURSE 3

RX EL. 30'-6 1/8"

979'-11 1/8"

COURSE 2

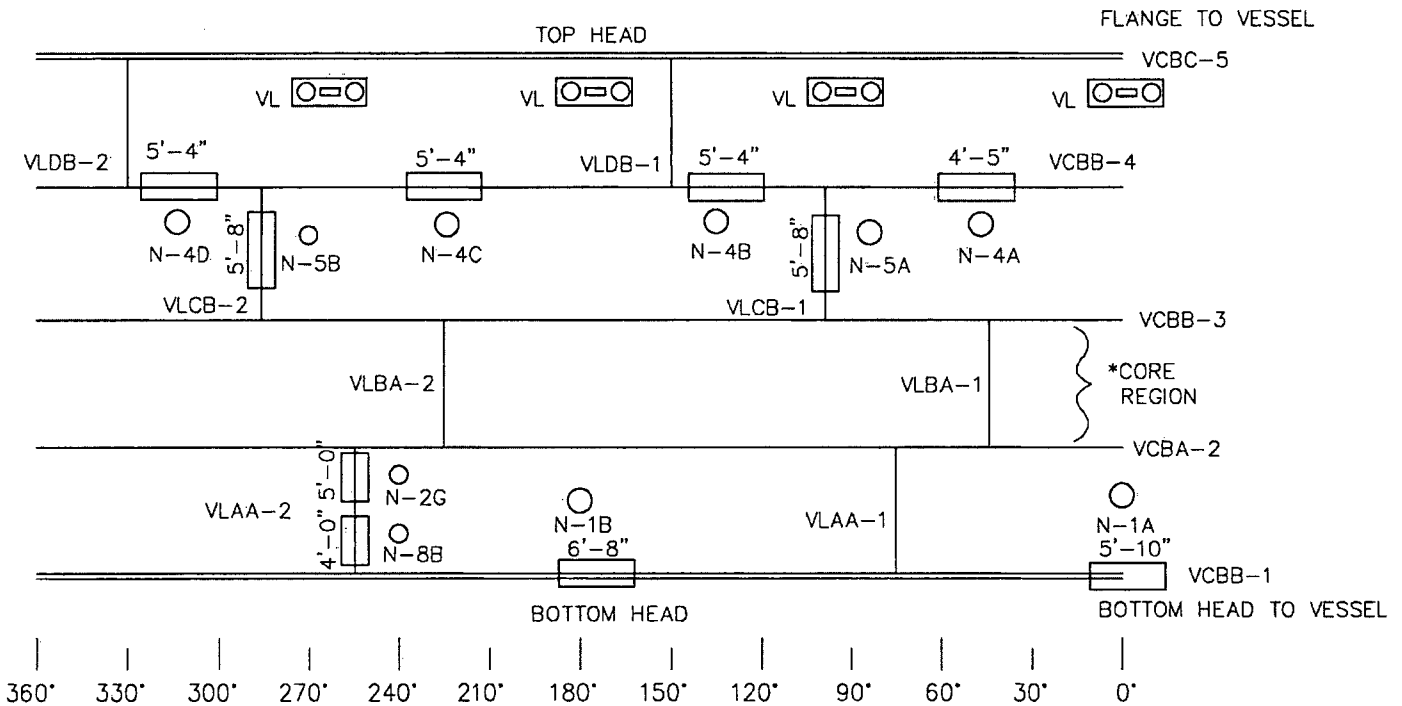
RX EL. 19'-6 9/16"

959'-11 9/16"

COURSE 1

RX EL. 8'-7"

958'-0"



NOTES:

1. CIRC. & LONG. WELDS ACCESSIBLE THROUGH NOZZLE WINDOWS (APPX. LENGTH ACCESSIBLE AS SHOWN)
2. VL - VESSEL STABILIZER LUG INTEGRAL ATTACHMENT

REF: NX-9310-11

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: CIRC & LONG REACTOR VESSEL WELDS		
LINE: N/A		
DWG:	ISI FIG-4	REV: 05

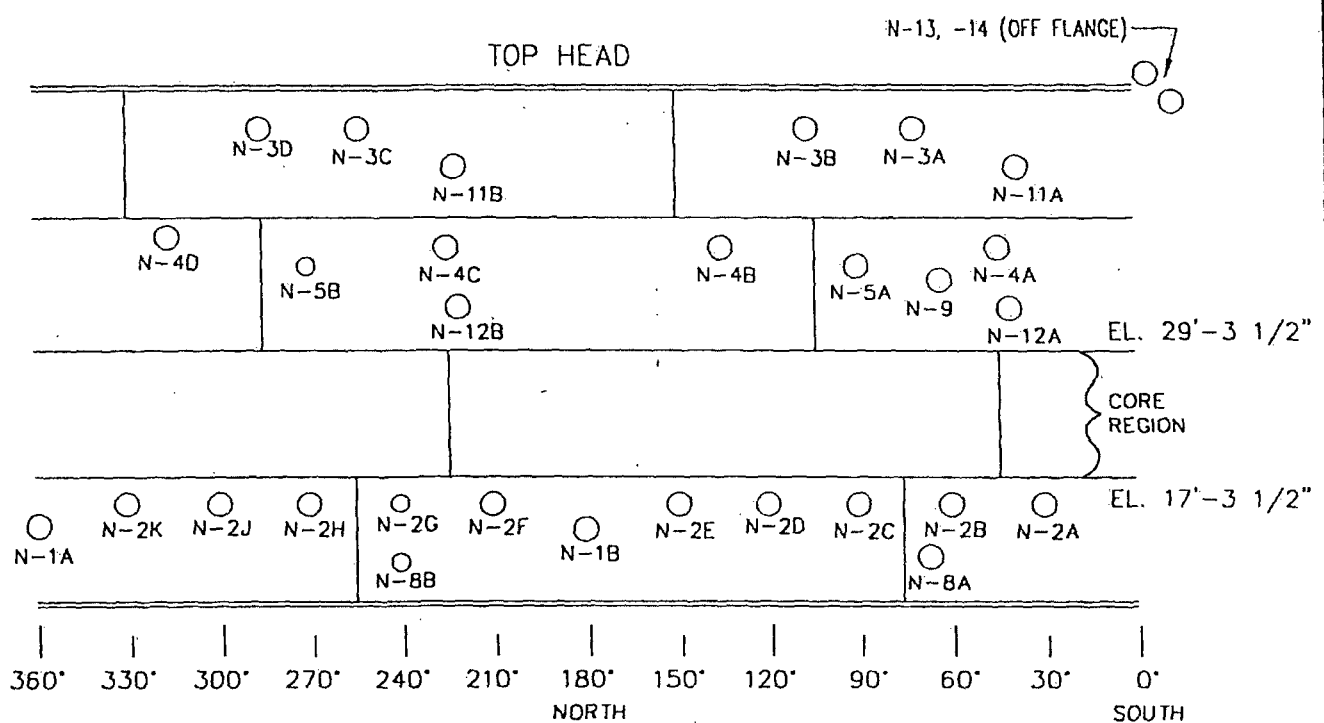
RX EL. 52'-5 1/4"
 1001'-10 1/4"
 COURSE 4

RX EL. 41'-5 11/16"
 990'-10 11/16"
 COURSE 3

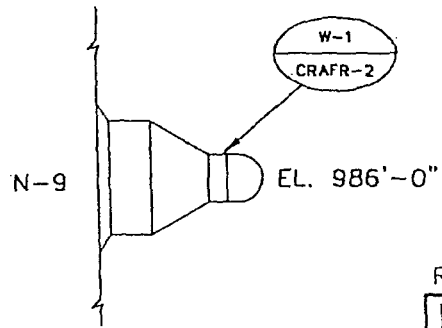
RX EL. 30'-6 1/8"
 979'-11 1/8"
 COURSE 2

RX EL. 19'-6 9/16"
 959'-11 9/16"
 COURSE 1

RX EL. 8'-7"
 958'-0"



NOZZLE	WELD	SYSTEM	ISO #
N-1A	RCAD-1	Recirc Outlet	ISI-97005-A
N-1B	RCBD-1	Recirc Outlet	ISI-97006-A
N-2A	RRAD-1	Recirc Inlet	ISI-97006-B
N-2B	RRBD-1	Recirc Inlet	ISI-97006-B
N-2C	RRCD-1	Recirc Inlet	ISI-97006-B
N-2D	RRDD-1	Recirc Inlet	ISI-97006-B
N-2E	RRED-1	Recirc Inlet	ISI-97006-B
N-2F	RRFD-1	Recirc Inlet	ISI-97005-B
N-2G	RRGD-1	Recirc Inlet	ISI-97005-B
N-2H	RRHD-1	Recirc Inlet	ISI-97005-B
N-2J	RRJD-1	Recirc Inlet	ISI-97005-B
N-2K	RRKD-1	Recirc Inlet	ISI-97005-B
N-3A	MSAD-1	Main Steam	ISI-13142-33-A
N-3B	MSBD-1	Main Steam	ISI-13142-34-A
N-3C	MSCO-1	Main Steam	ISI-13142-35-A
N-3D	MSDD-1	Main Steam	ISI-13142-36-A
N-4A	FWAD-1	Feedwater	ISI-13142-53-A
N-4B	FWBD-1	Feedwater	ISI-13142-53-A
N-4C	FWCD-1	Feedwater	ISI-13142-52-A
N-4D	FWDD-1	Feedwater	ISI-13142-52-A
N-5A	CSAD-1	Core Spray	ISI-13142-26-A
N-5B	CSBD-1	Core Spray	ISI-13142-31-A
N-8A	JPAD-1	Jet Pump Instr.	ISI-16
N-8B	JPBD-1	Jet Pump Instr.	ISI-16
N-9	CRAD-1	CRD Return	ISI FIG. 5
N-11A	VIAE-1	Instrumentation	ISI-97008-A
N-11B	VIBE-1	Instrumentation	ISI-97007-A
N-12A	VICE-1	Instrumentation	ISI-19
N-12B	VIDE-1	Instrumentation	ISI-19
N-13	VFAE-1	Flange-to-Nozzle	ISI FIG. 5
N-14	VFBE-1	Flange-to-Nozzle	ISI FIG. 5

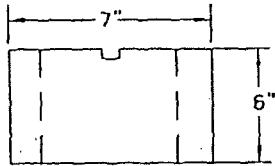


REF: NX-9310-11

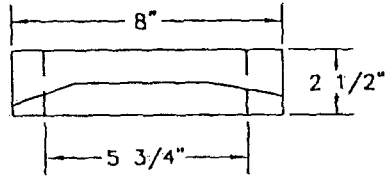
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAW	APPD: DWT
SYSTEM: RX VESSEL NOZZLES		
LINE: N/A		
DWG:	ISI FIG. 5	REV: 04

REACTOR VESSEL STUD, WASHER & LIGAMENT LOCATION

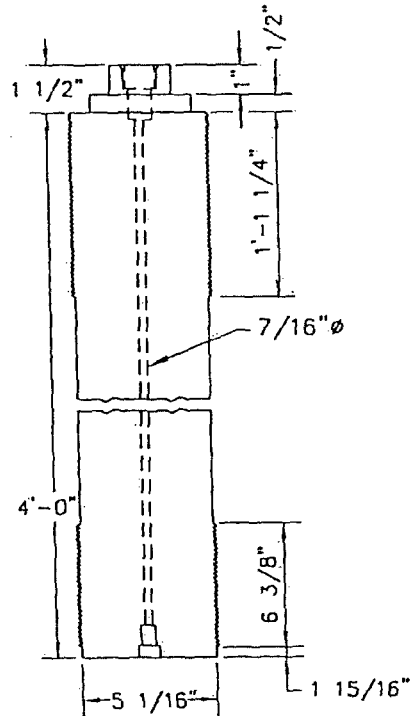
NUT



WASHER SET

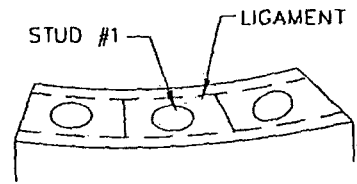
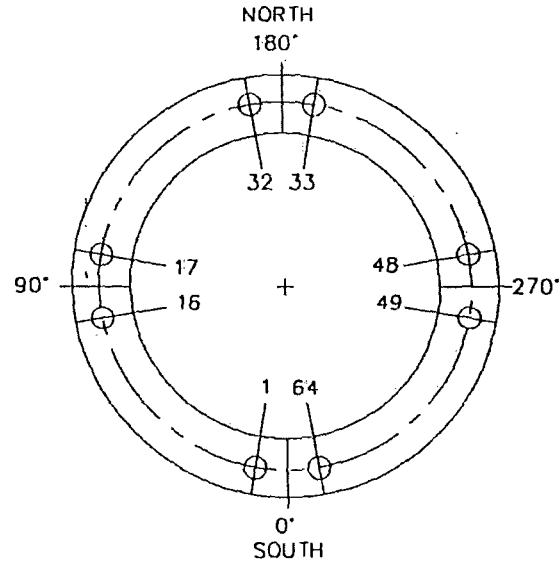


STUD



BUSHING

6" ϕ X 7.420" LG



REF: NX-8290-63

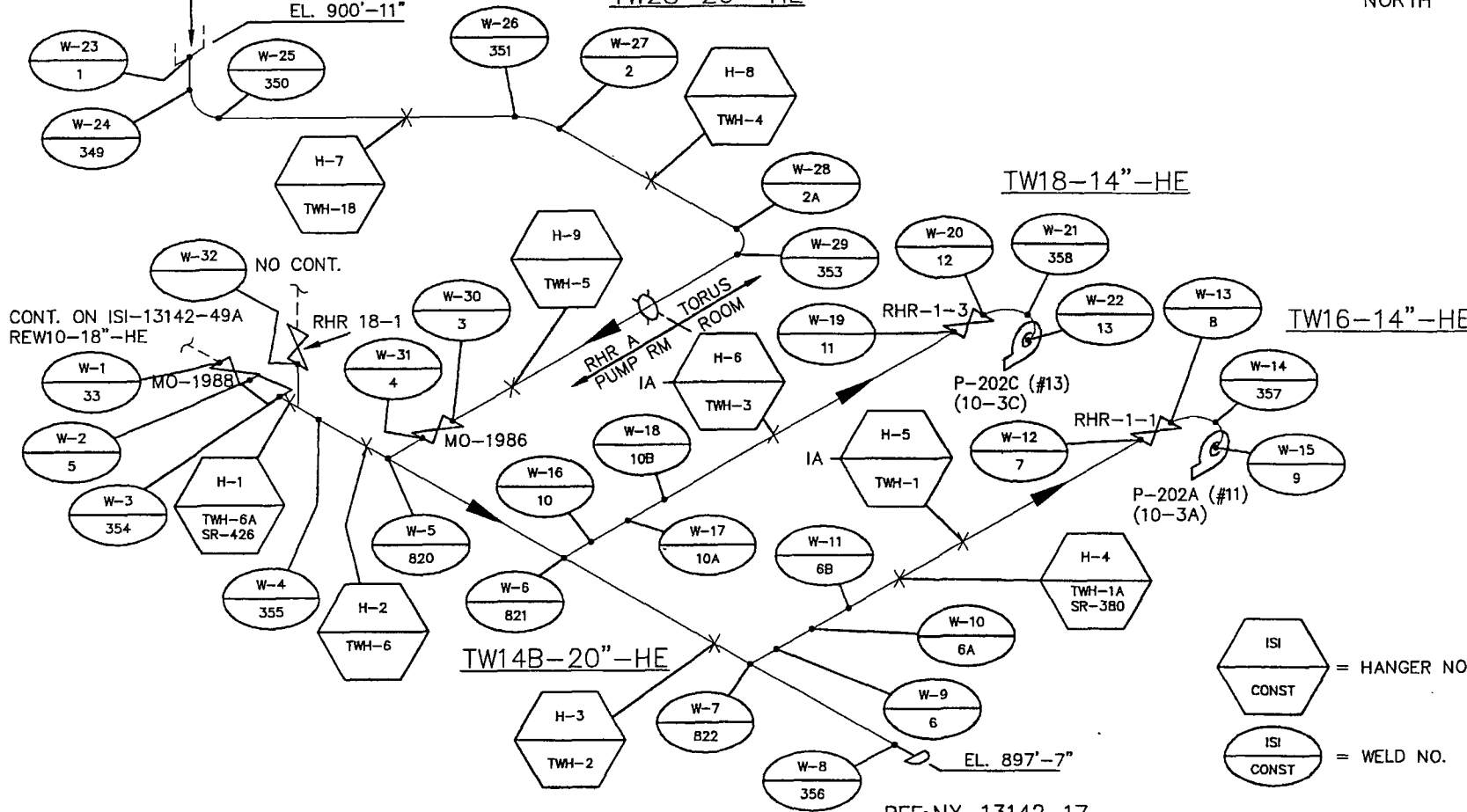
NSP MONTICELLO	ISI
DWN: MCWI	CHKD: RAD APPD: DSW
SYSTEM: REACTOR VESSEL BOLTING	
LINE: N/A	
DWG:	ISI FIG. 6
	REV: 05



TORUS RING HEADER (BAY-16)
PENETRATION X-224-B

TW28-20"-HE

EL. 900'-11"



CONT. ON ISI-13142-49A
REW10-18"-HE

NO CONT.

TW14B-20"-HE

TW18-14"-HE

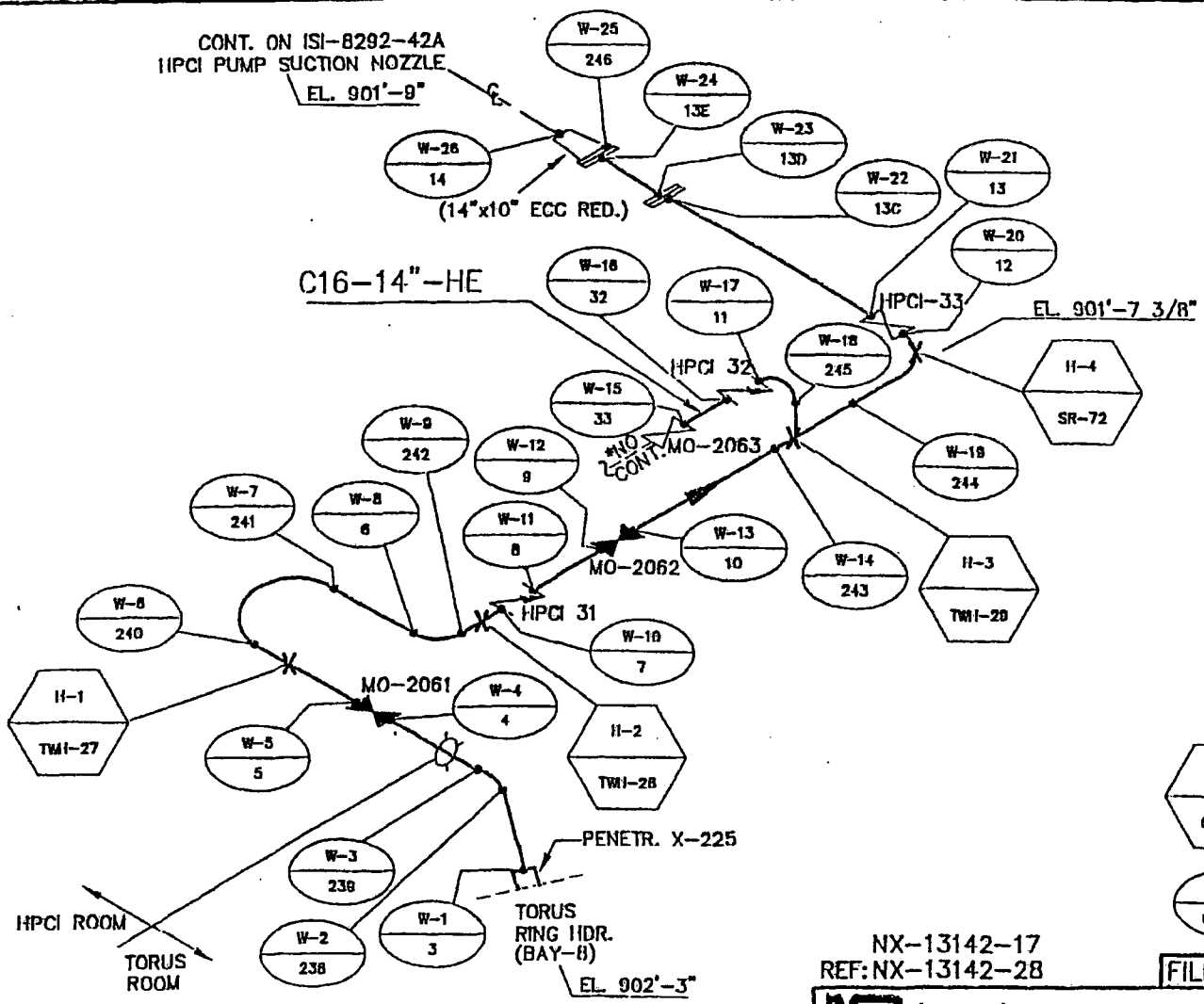
TW16-14"-HE

REF: NX-13142-17

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>JJP</i>
SYSTEM: RHR "A" SUCTION		
LINE: NOTED		
DWG: ISI-13142-17-A	REV: 06	

IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

CONT. ON ISI-8292-42A
HPCI PUMP SUCTION NOZZLE
EL. 901'-9"



ISI
CONST = HANGER NO.

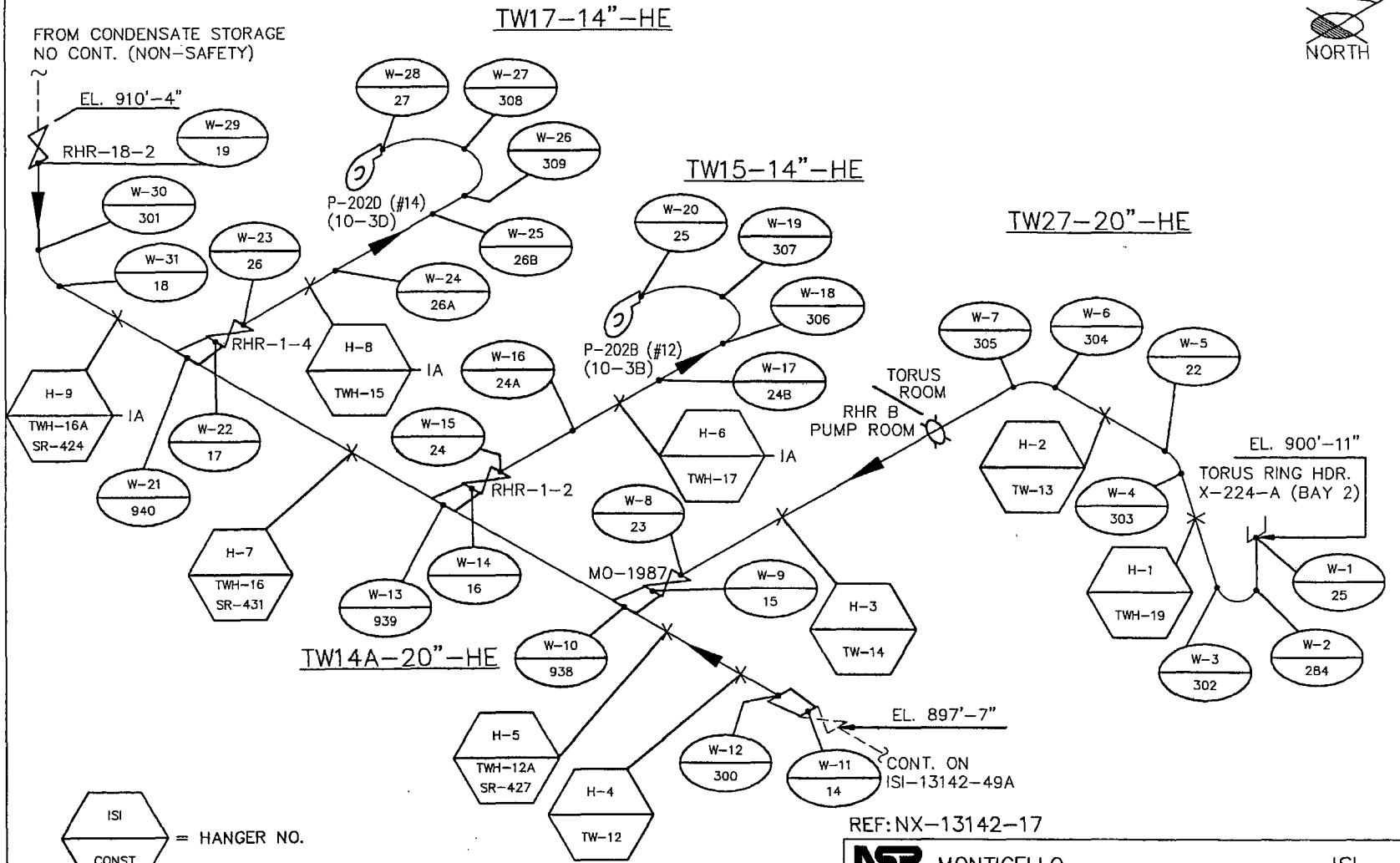
ISI
CONST = WELD NO.

HIGH PRESSURE COOLANT INJECTION (WATER SIDE SUCTION)

* FROM CONDENSATE STORAGE TANK (QUALITY GROUP D - YELLOW)

NX-13142-17		FILE NO:	
REF: NX-13142-28			
NSP (M&SP) - MONTICELLO ISI			
DWN: TJH	CHKD: <i>RA</i>	APPD: <i>OKW</i>	
SYSTEM: HPCI WATER			
LINE: TW1-14"-HE			
DWG: ISI-13142-17B	REV: 04		

FROM CONDENSATE STORAGE
NO CONT. (NON-SAFETY)



ISI
CONST = HANGER NO.

ISI
CONST = WELD NO.

RHR SUCTION B

IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

REF: NX-13142-17

NSP MONTICELLO		ISI
DWN: JJP	CHKD: JP	APPD: <i>[Signature]</i>
SYSTEM: RHR B SUCTION		
LINE: NOTED		
DWG:	ISI-13142-17-C	REV: 07



CONT. ON ISI-97004A
TW20-16"-DB

TW20-16"-GE

TW20-14"-GE

CONT. ON
ISI-13142-51B
TW23-12"-GE

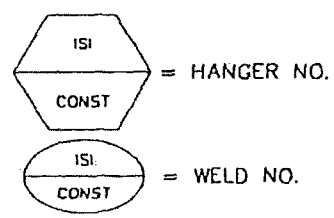
CONT. ON
ISI-13142-18C

CONT. ON ISI-13142-37A
TW30-14"GE

CONT. ON
ISI-13142-62
FPW12-8"-GE

EL. 927'-10"
TW22-14"-GE

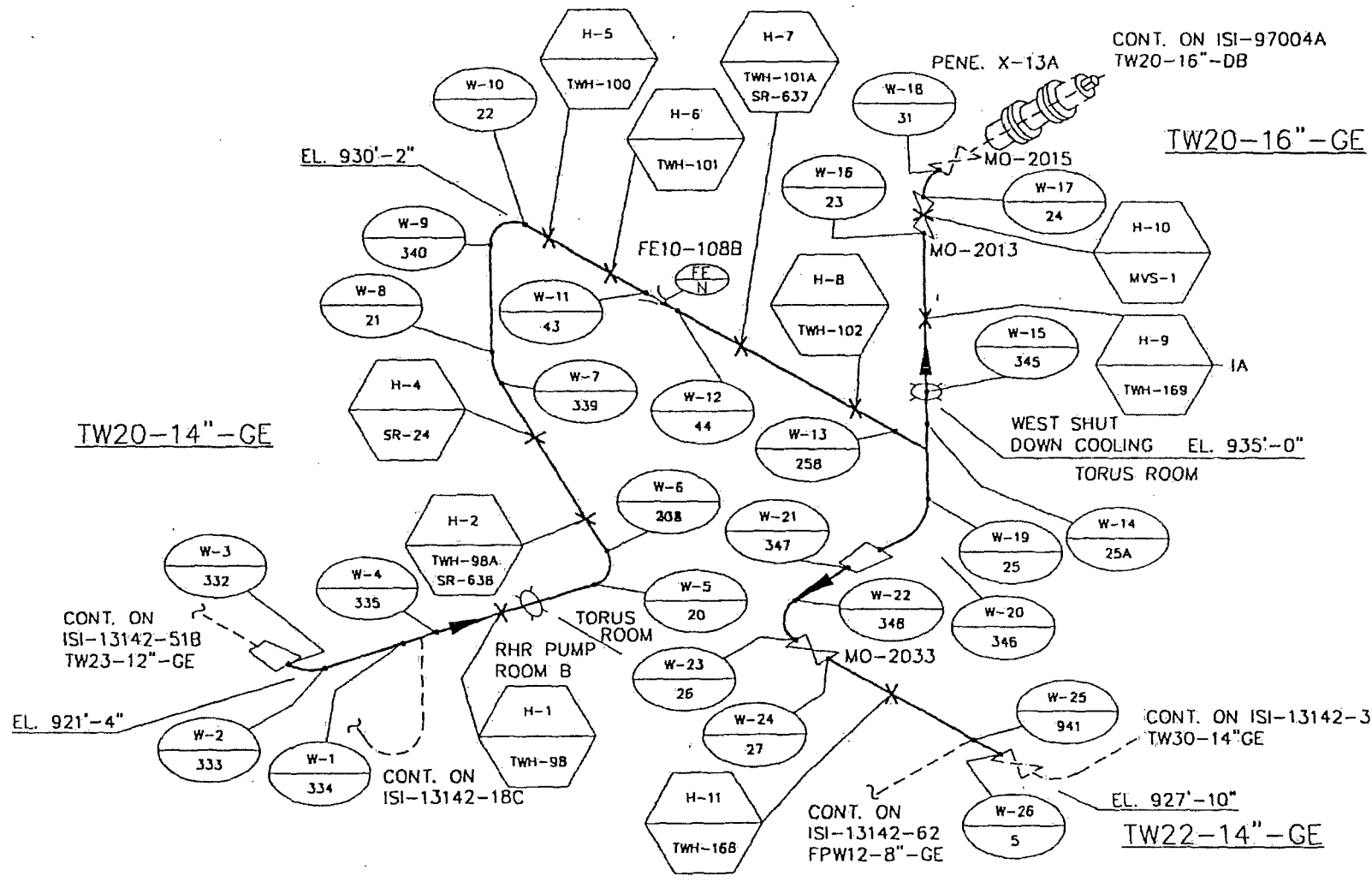
RHR DISCHARGE B



REF: NX-13142-18

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: DW
SYSTEM: RHR B		
LINE: NOTED		
DWG: ISI-13142-18-A	REV: 05	

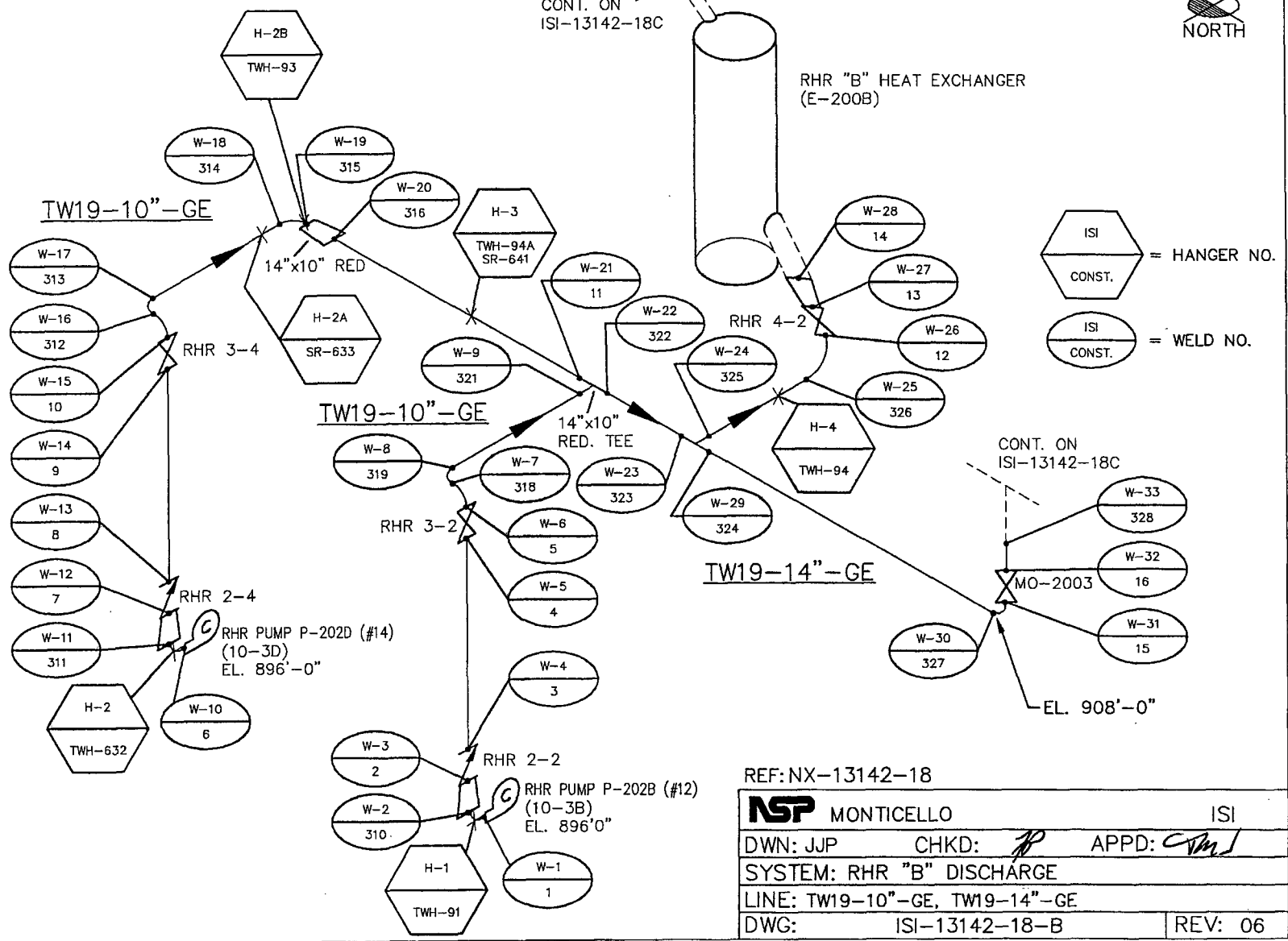
NOTE:
H-3 IS NON-EXISTENT. IT WAS REMOVED PER MOD 920520
IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)





CONT. ON
ISI-13142-18C

RHR "B" HEAT EXCHANGER
(E-200B)



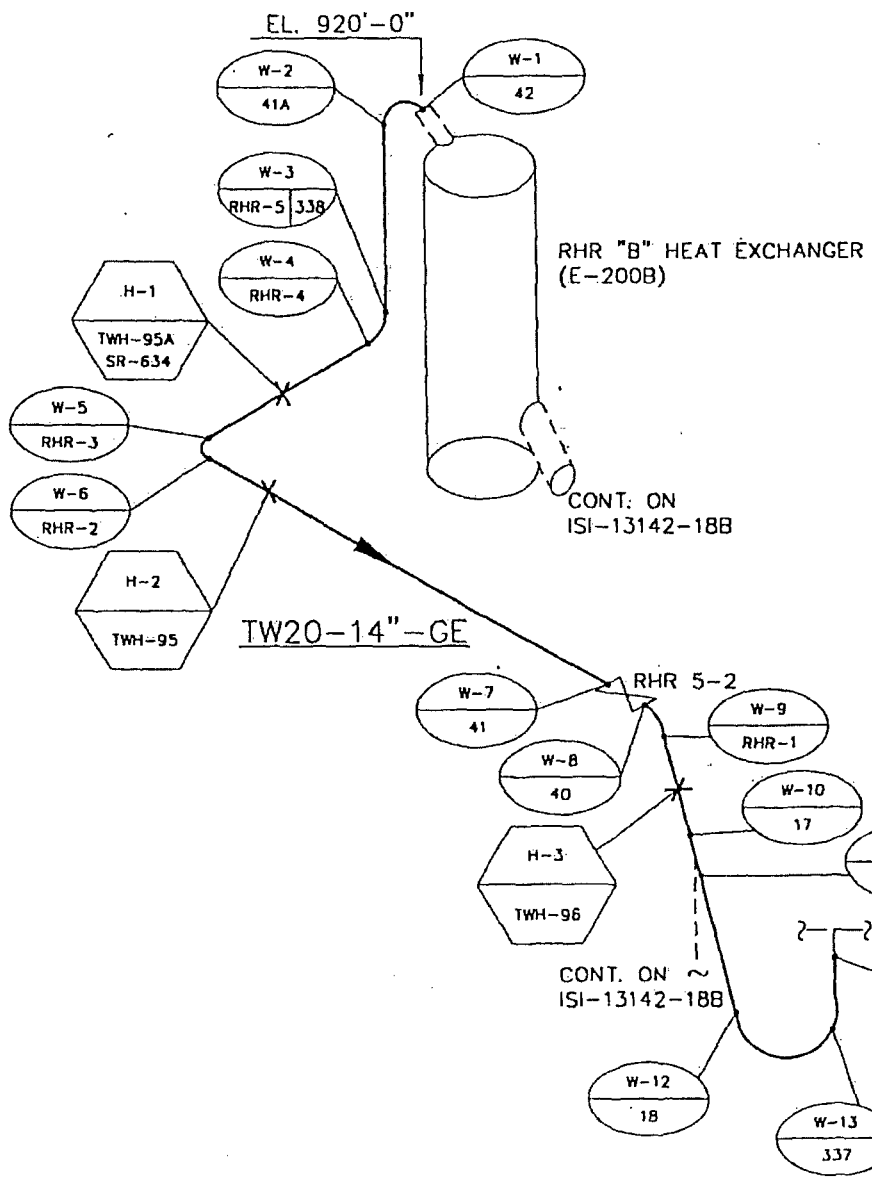
ISI
CONST. = HANGER NO.

ISI
CONST. = WELD NO.

CONT. ON
ISI-13142-18C

REF: NX-13142-18

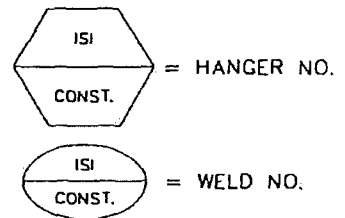
NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>CMJ</i>
SYSTEM: RHR "B" DISCHARGE		
LINE: TW19-10"-GE, TW19-14"-GE		
DWG: ISI-13142-18-B	REV: 06	



CONT. ON
ISI-13142-18B

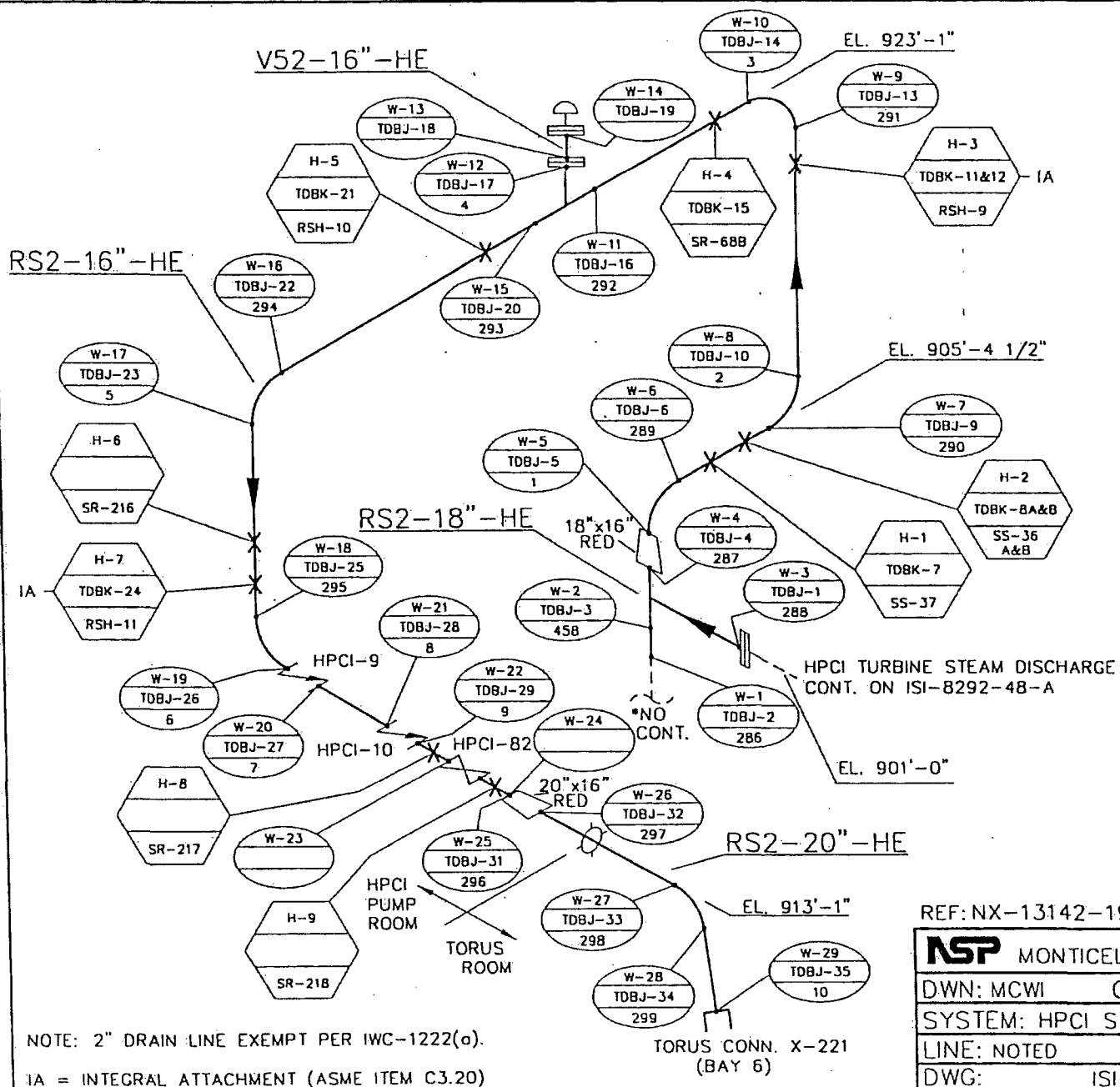
CONT. ON
ISI-13142-18A

CONT. ON
ISI-13142-18B



REF: NX-13142-18

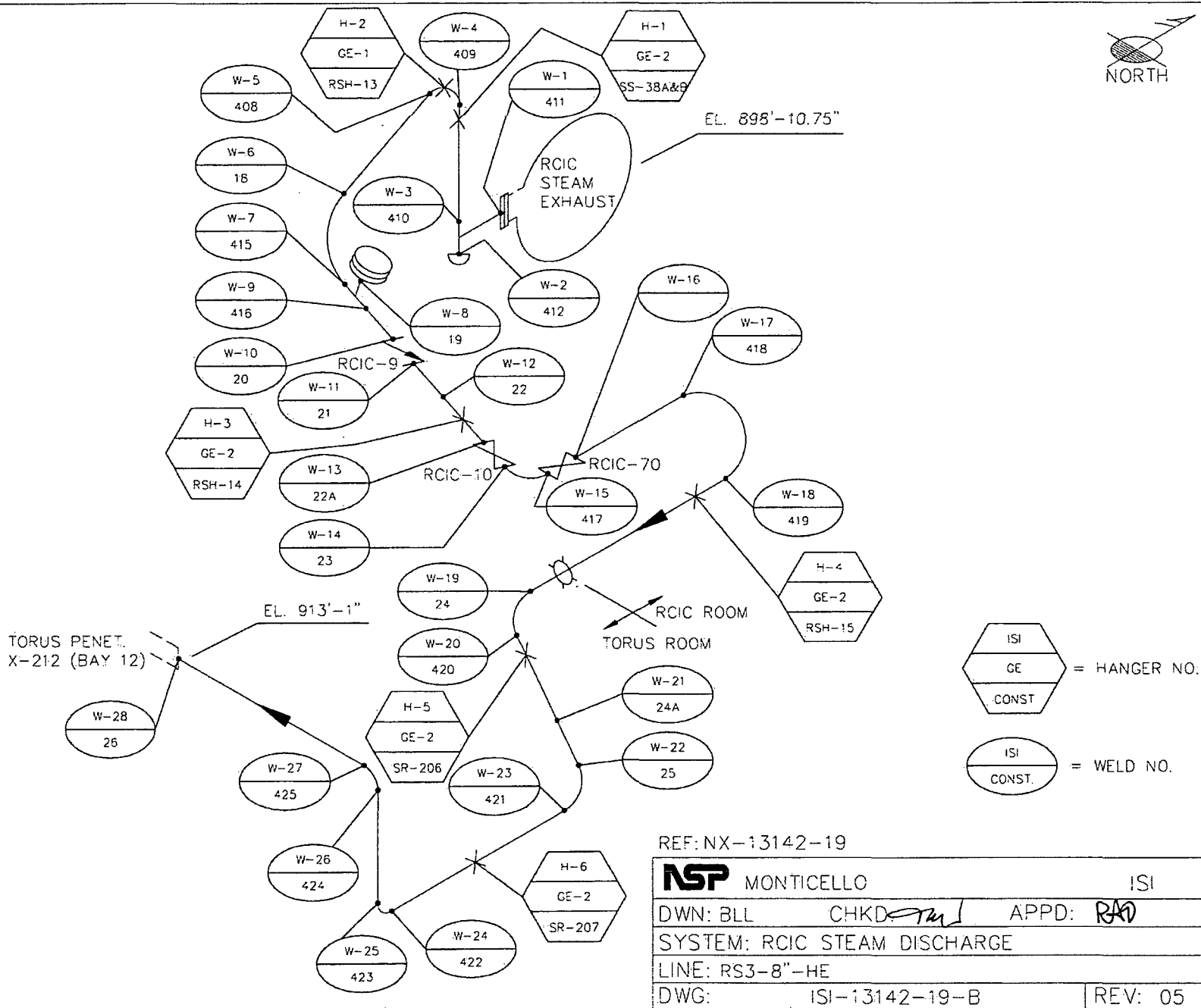
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: <i>OR</i>
SYSTEM: RHR "B" DISCHARGE		
LINE: TW20-14"-GE		
DWG: ISI-13142-18-C	REV: 03	

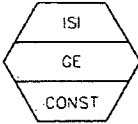
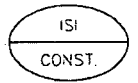


REF: NX-13142-19

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>PLD</i>	APPD: <i>REV</i>
SYSTEM: HPCI STEAM SIDE DISCHARGE		
LINE: NOTED		
DWG: ISI-13142-19-A	REV: 05	

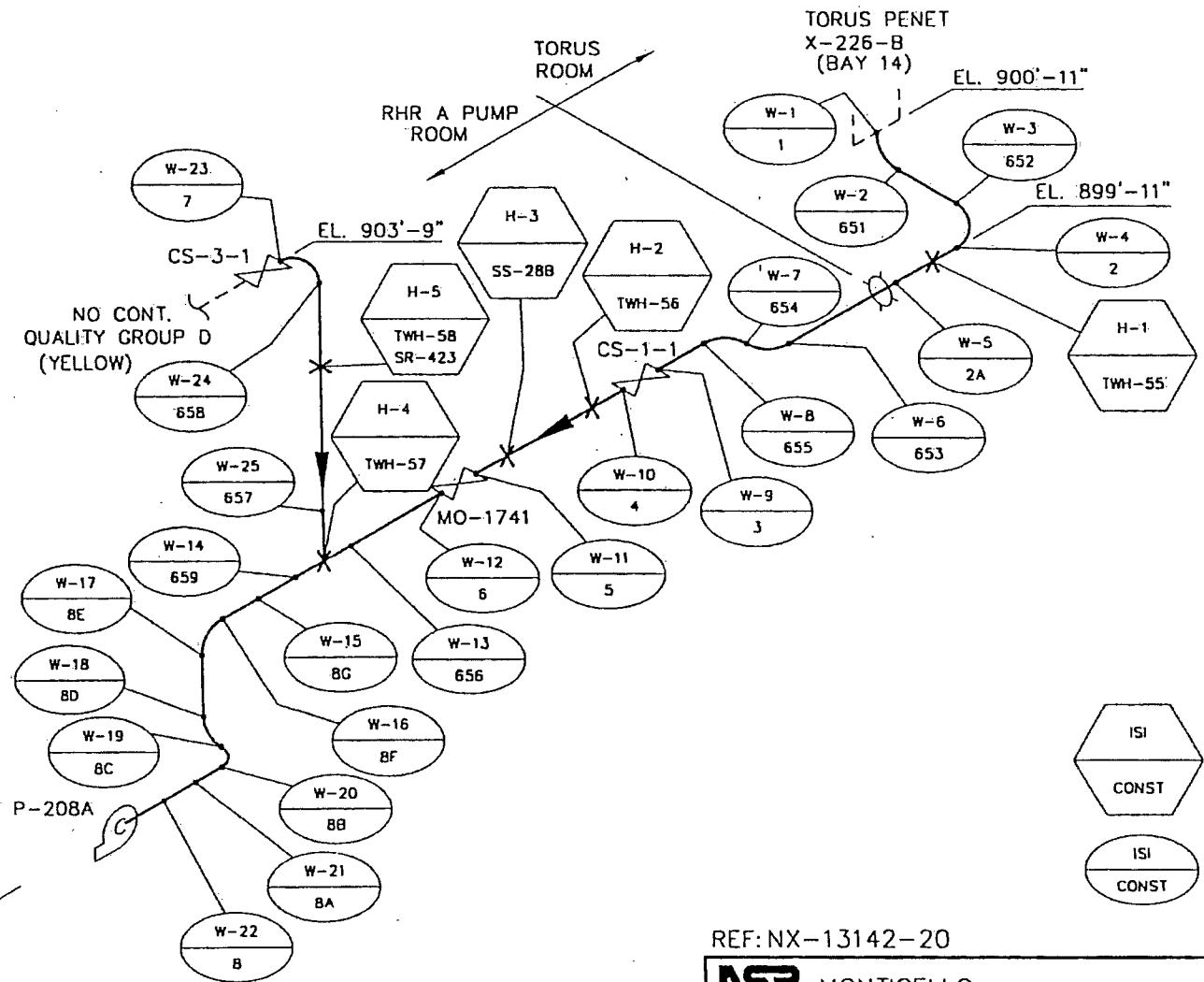
NOTE: 2" DRAIN LINE EXEMPT PER IWC-1222(o).
 IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)



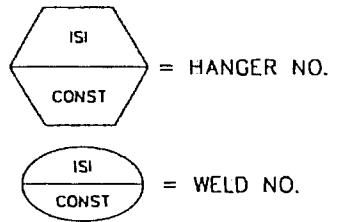
 = HANGER NO.
 = WELD NO.

REF: NX-13142-19

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: RCIC STEAM DISCHARGE		
LINE: RS3-8"-HE		
DWG:	ISI-13142-19-B	REV: 05



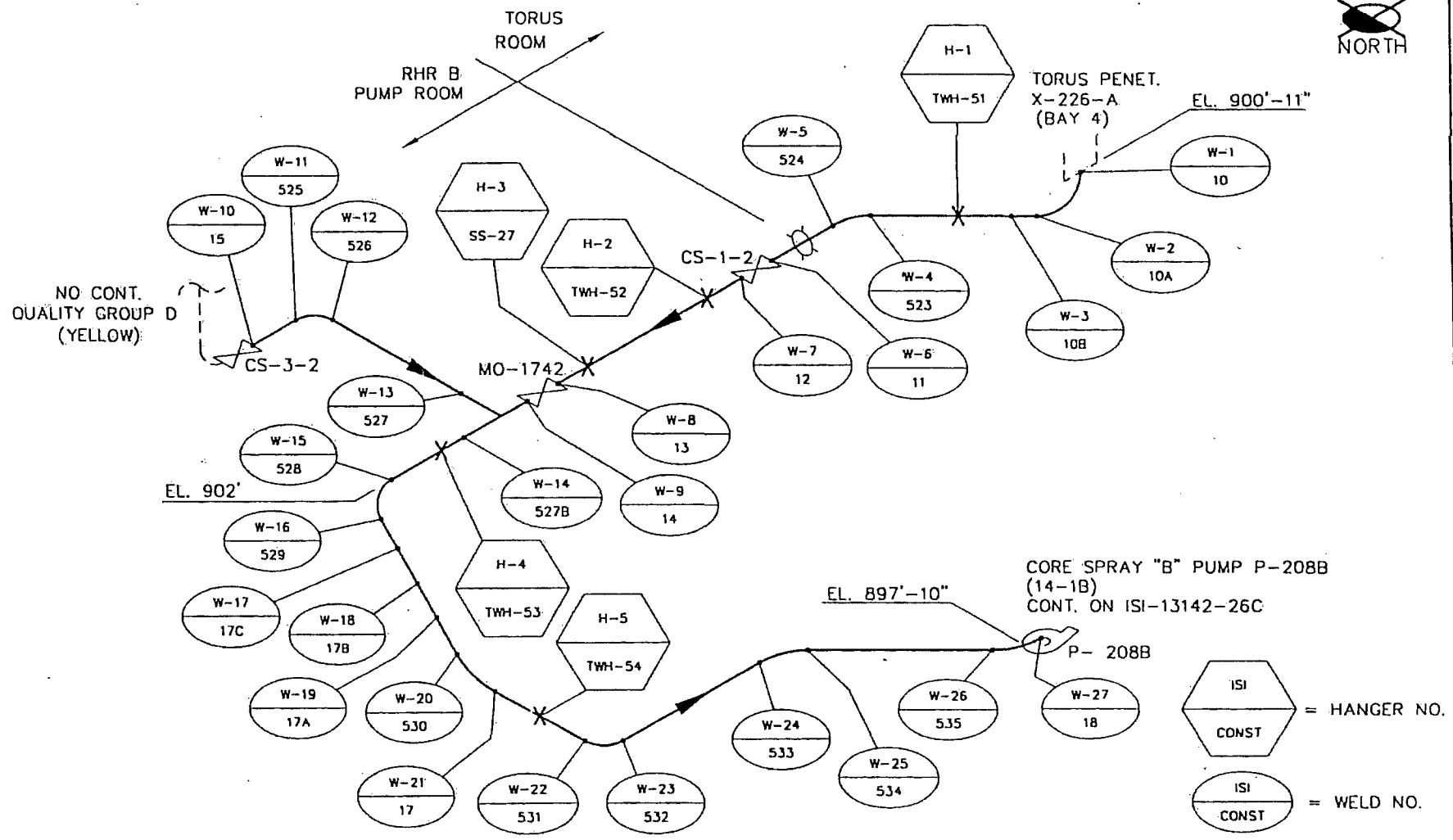
CORE SPRAY "A" PUMP P-208A
(14-1A)
CONT. ON 13142-31C



REF: NX-13142-20

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>PER</i>	APPD: <i>OSW</i>
SYSTEM: CORE SPRAY "A" SUCTION		
LINE: TW10-12"-HE		
DWG: ISI-13142-20-A	REV: 05	

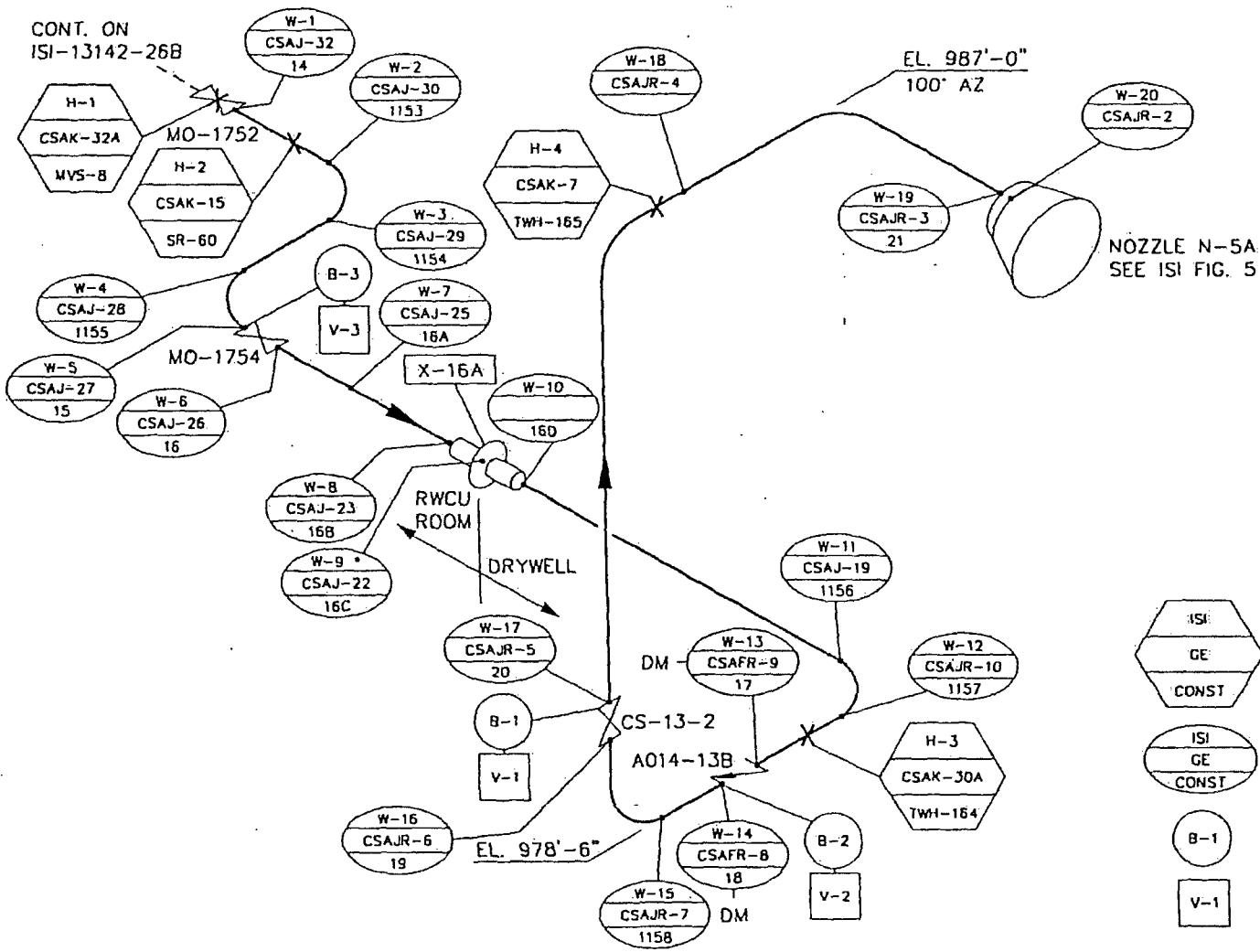
EL. 897'-10"

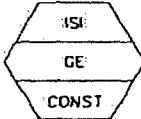





ISI
 CONST = HANGER NO.
 ISI
 CONST = WELD NO.

REF: NX-13142-20

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RMS</i>	APPD: <i>OSV</i>
SYSTEM: CORE SPRAY "B" SUCTION		
LINE: TW6-12"-HE		
DWG:	ISI-13142-20-B	REV: 05

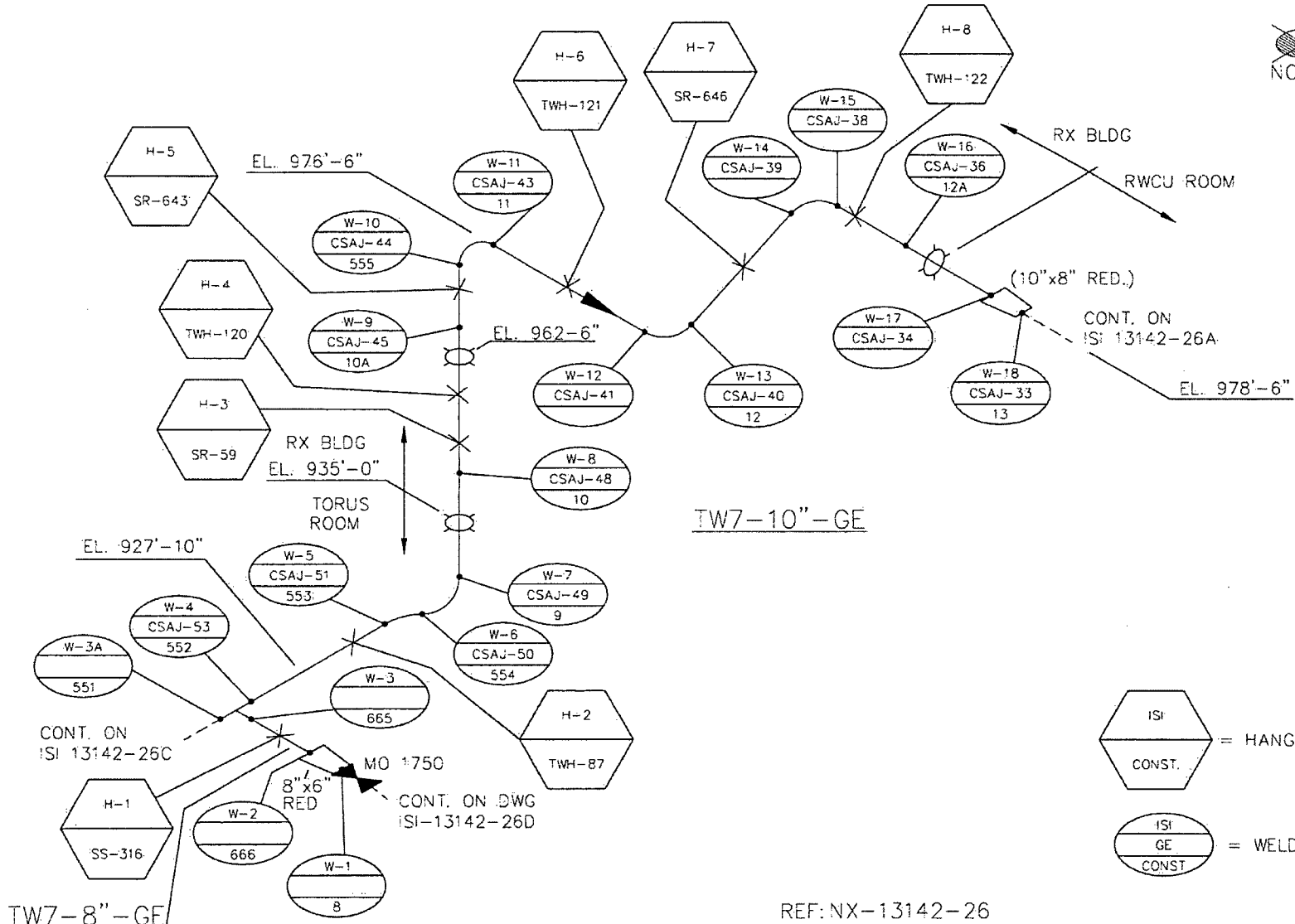


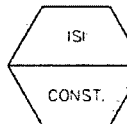
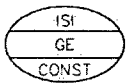
-  = HANGER NO.
-  = WELD NO.
-  = BOLT NO.
-  = VALVE NO.

REF: NX-13142-26

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>PSJ</i>	APPD: <i>DSW</i>
SYSTEM: CORE SPRAY "B" DISCHARGE		
LINE: TW7-8"-ED		
DWG:	ISI-13142-26-A	REV: 05

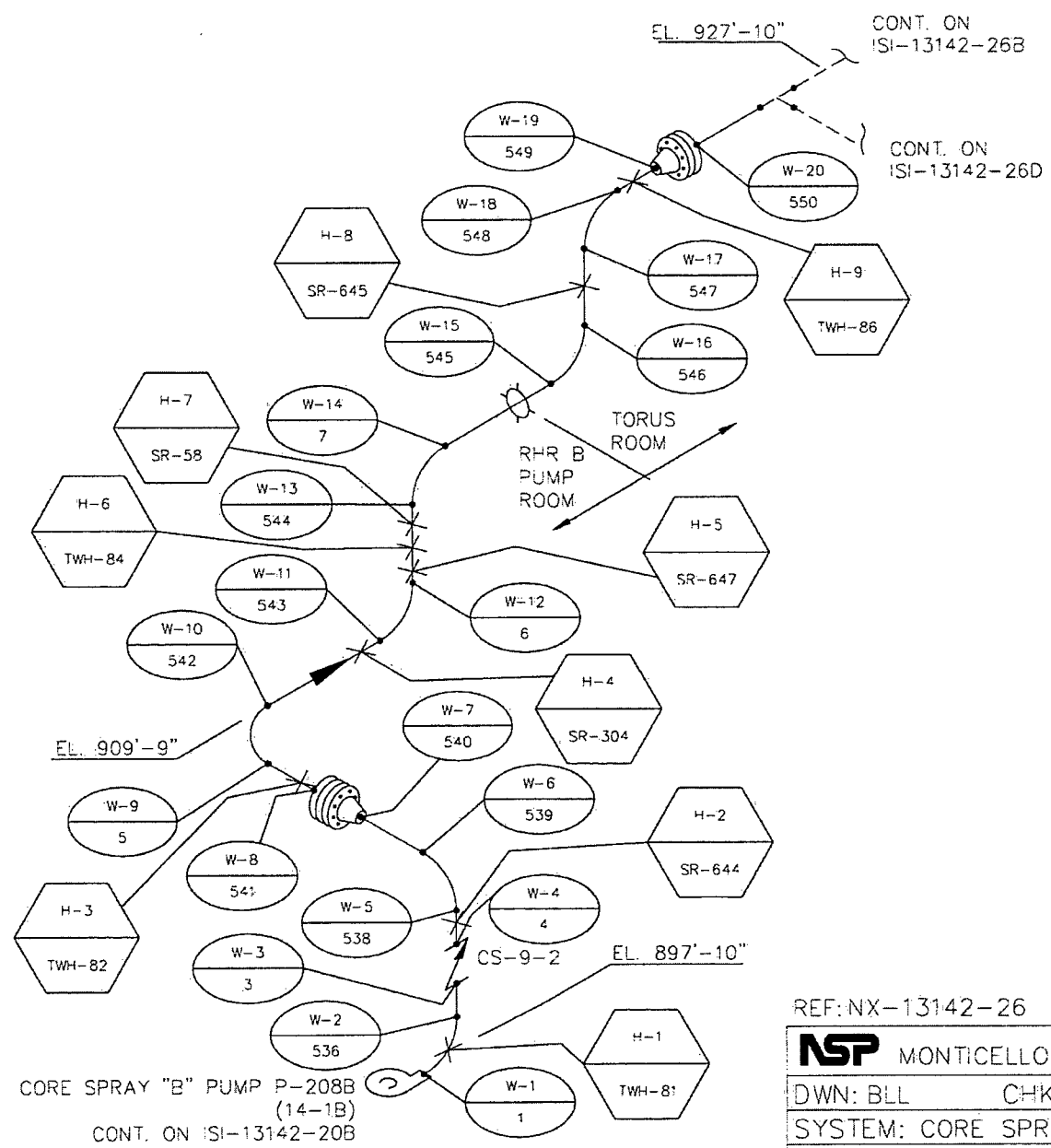
DM = DISSIMILAR METAL WELD
 * = INACCESSIBLE



 = HANGER NO.
 = WELD NO.

REF: NX-13142-26

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>TMJ</i>	APPD: <i>RAF</i>
SYSTEM: CORE SPRAY "B" DISCHARGE		
LINE: TW7-8"-GE ; TW7-10"-GE		
DWG:	ISI-13142-26-B	REV: 05



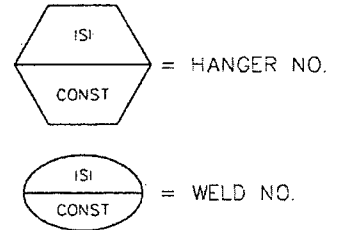
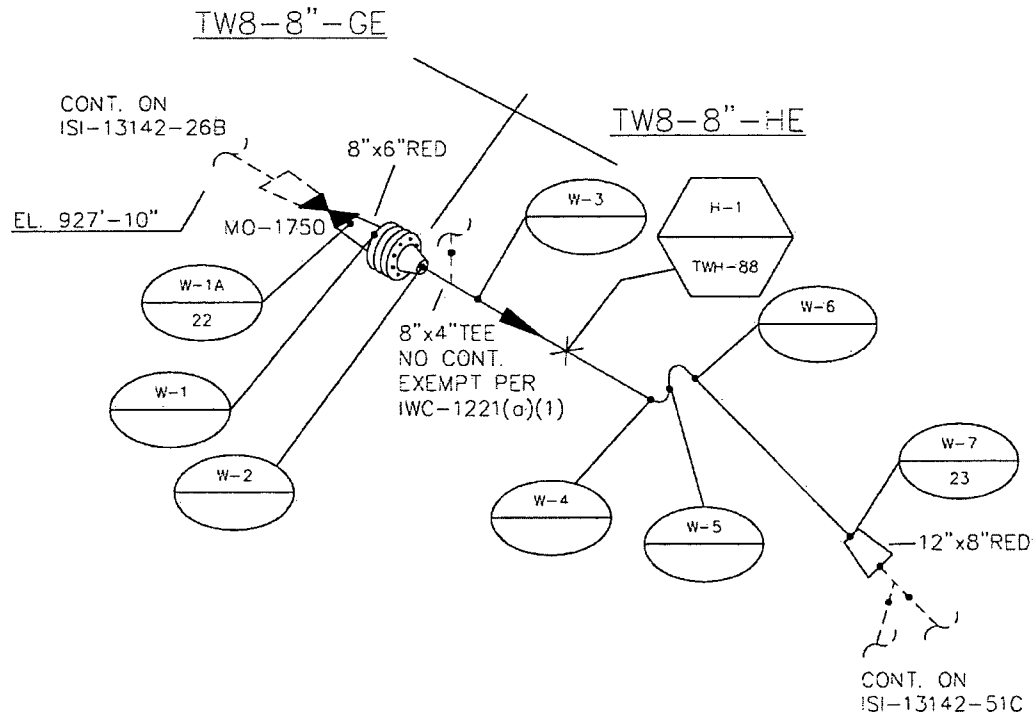
CORE SPRAY "B" PUMP P-208B
(14-1B)
CONT. ON ISI-13142-20B

ISI
CONST = HANGER NO.

ISI
CONST = WELD NO.

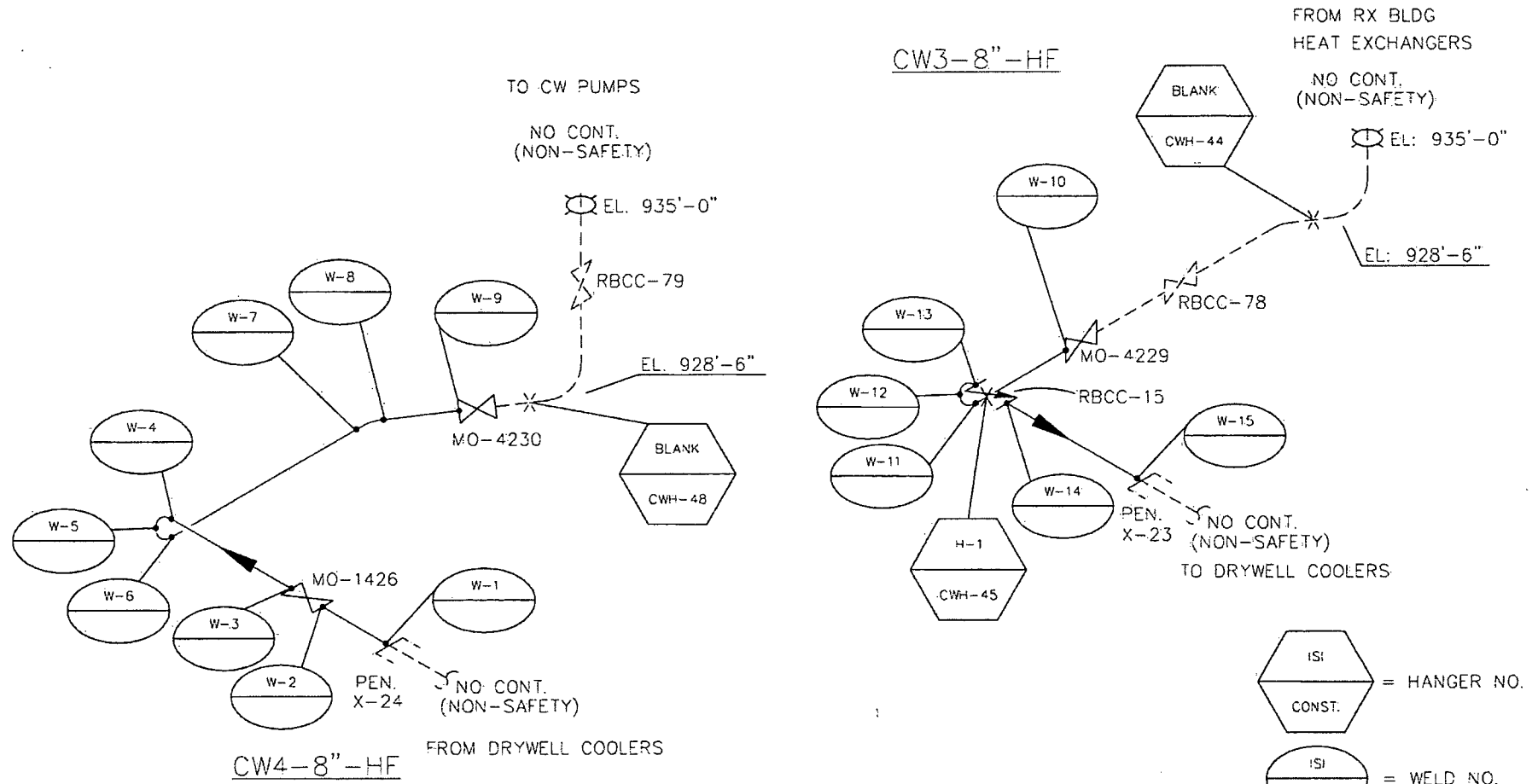
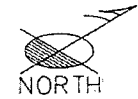
REF: NX-13142-26

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>gym</i>	APPD: <i>RAD</i>
SYSTEM: CORE SPRAY "B" DISCHARGE		
LINE: TW7-10"-GE		
DWG: ISI-13142-26-C	REV: 06	



REF: NX-13142-26

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>cmj</i>	APPD: <i>RAD</i>
SYSTEM: CORE SPRAY "B" DISCHARGE		
LINE: TW8-8"-HE & TW8-8"-GE		
DWG: ISI-13142-26-D	REV: 02	



NH-36042-2
 NX-13142-29
 REF: NX-13142-38

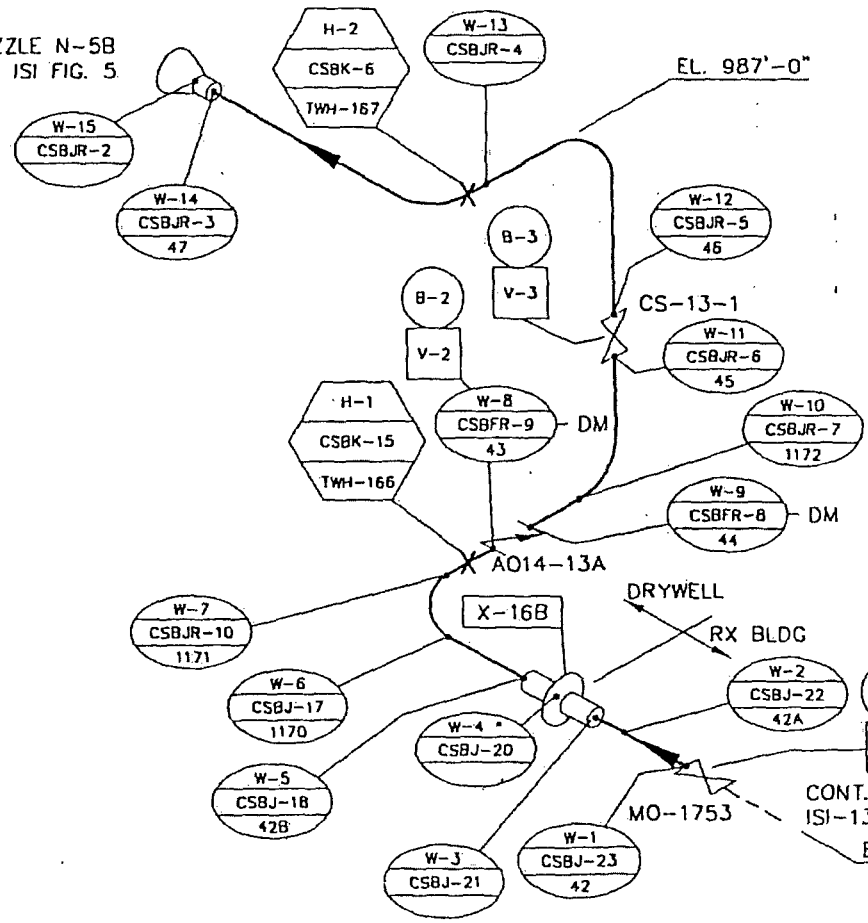
ISI
 CONST. = HANGER NO.
 ISI
 CONST. = WELD NO.

NOTE:
 LOCATED ABOVE TORUS BAYS 5 & 6 (INBOARD)

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: RX BLDG COOLING WATER		
LINE: CW4-8"-HF & CW3-8"-HF		
DWG:	ISI-13142-29-A	REV: 03



NOZZLE N-5B
SEE ISI FIG. 5



- = HANGER NO.
- = WELD NO.
- = BOLT NO.
- = VALVE NO.

974' Rx Cubicle
(elevated room by SBLC -
Ladder access by
instrument rack)

REF: NX-13142-31

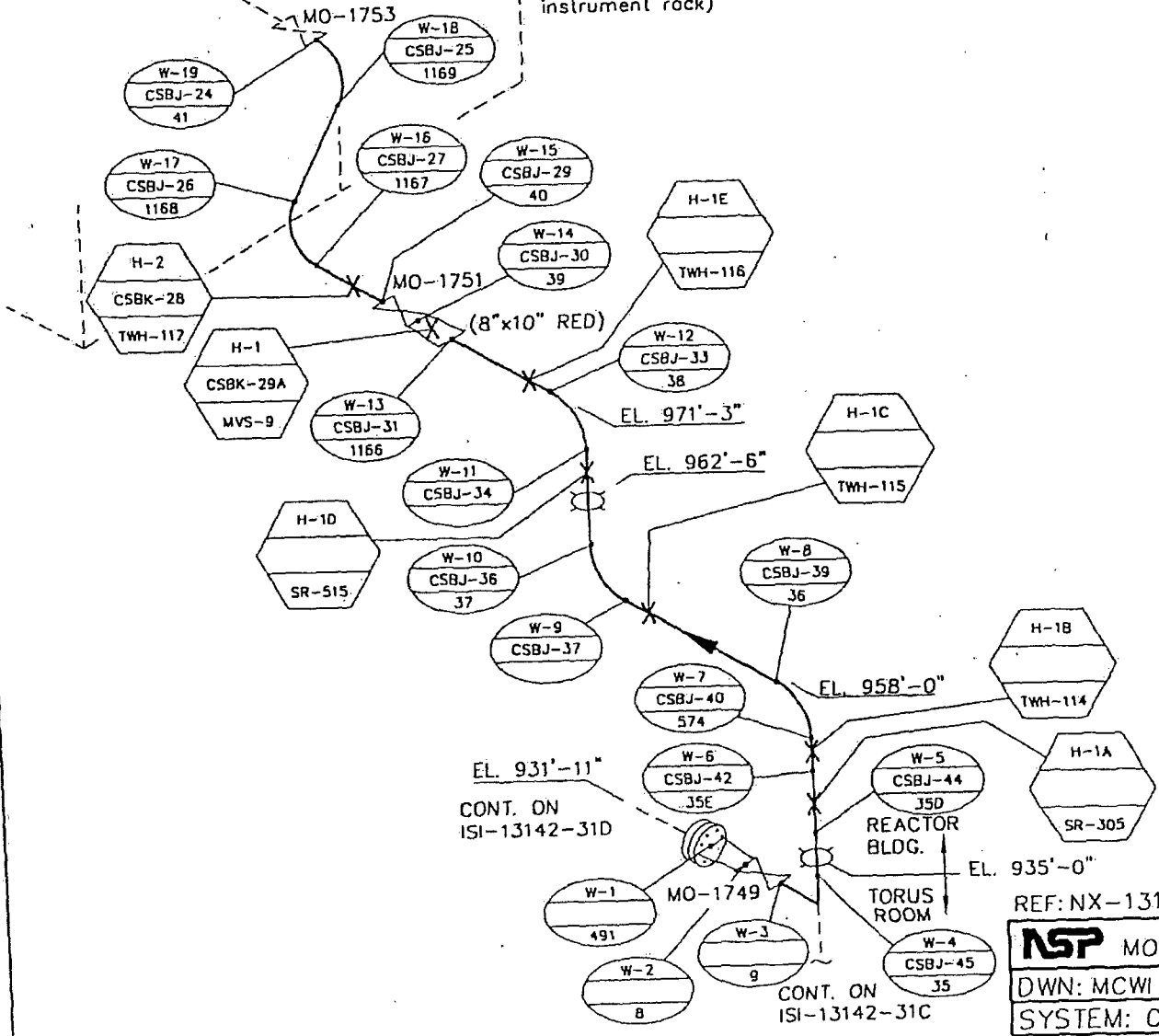
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAV</i>	APPD: <i>OSW</i>
SYSTEM: CORE SPRAY "A" DISCHARGE		
LINE: TW11-8"-ED		
DWG:	ISI-13142-31-A	REV: 05

DM = DISSIMILAR METAL WELD
• = INACCESSIBLE



EL. 978'-6" CONT. ON ISI-13142-31A

974' Rx Cubicle
(elevated room by SBLC -
Ladder access by
instrument rack)



ISI
GE
CONST = HANGER NO.

ISI
GE
CONST = WELD NO.

REF: NX-13142-31

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: <i>Phut</i>
SYSTEM: CORE SPRAY "A" DISCHARGE		
LINE: TW11-10"-GE		
DWG: ISI-13142-31-B	REV: 04	

NOTE:

EXAMS REQUIRED ON HANGERS ONLY.

NO EXAMS REQUIRED ON WELDS PER TABLE IWC-2500-1, ITEM C5.50. <3/8" NOM WALL.

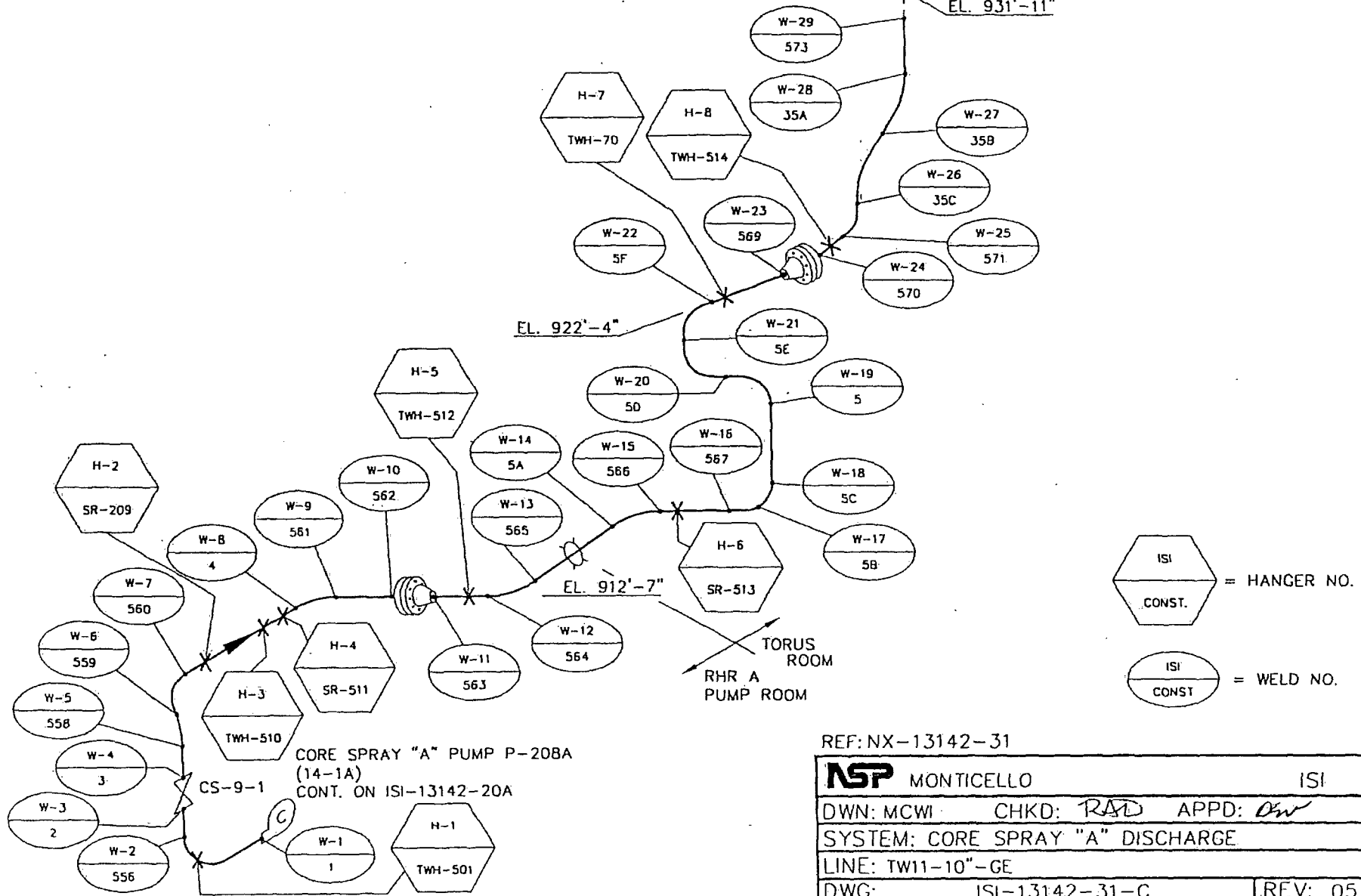
CONT. ON
ISI-13142-31B



EL. 931'-11"

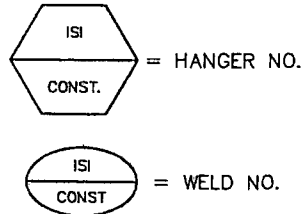
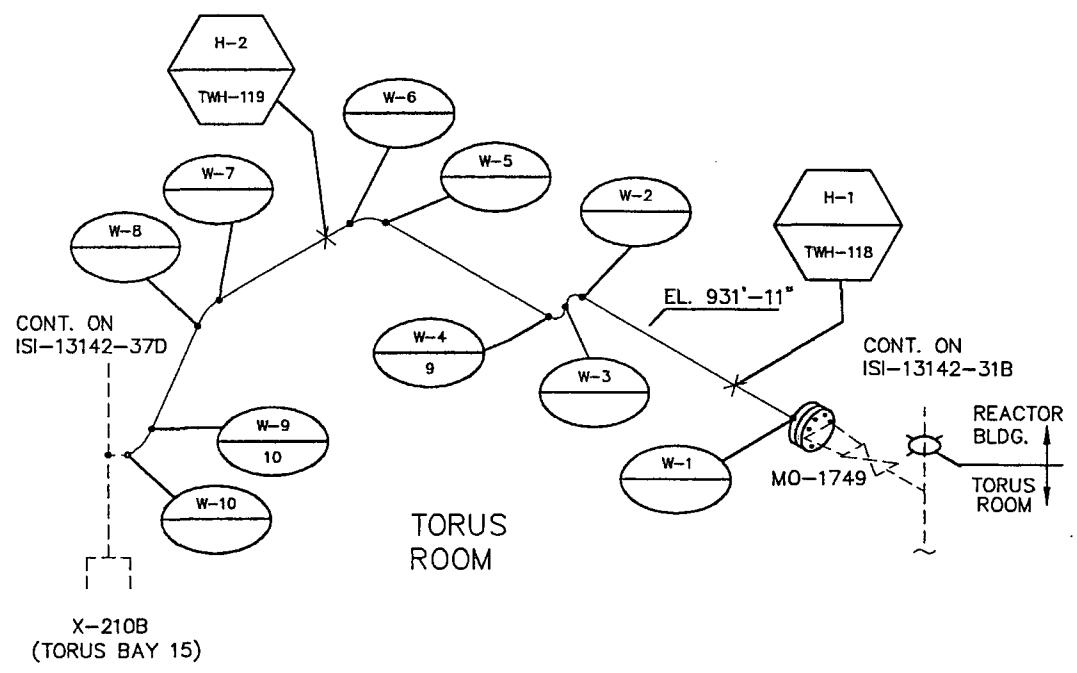
EL. 922'-4"

EL. 912'-7"



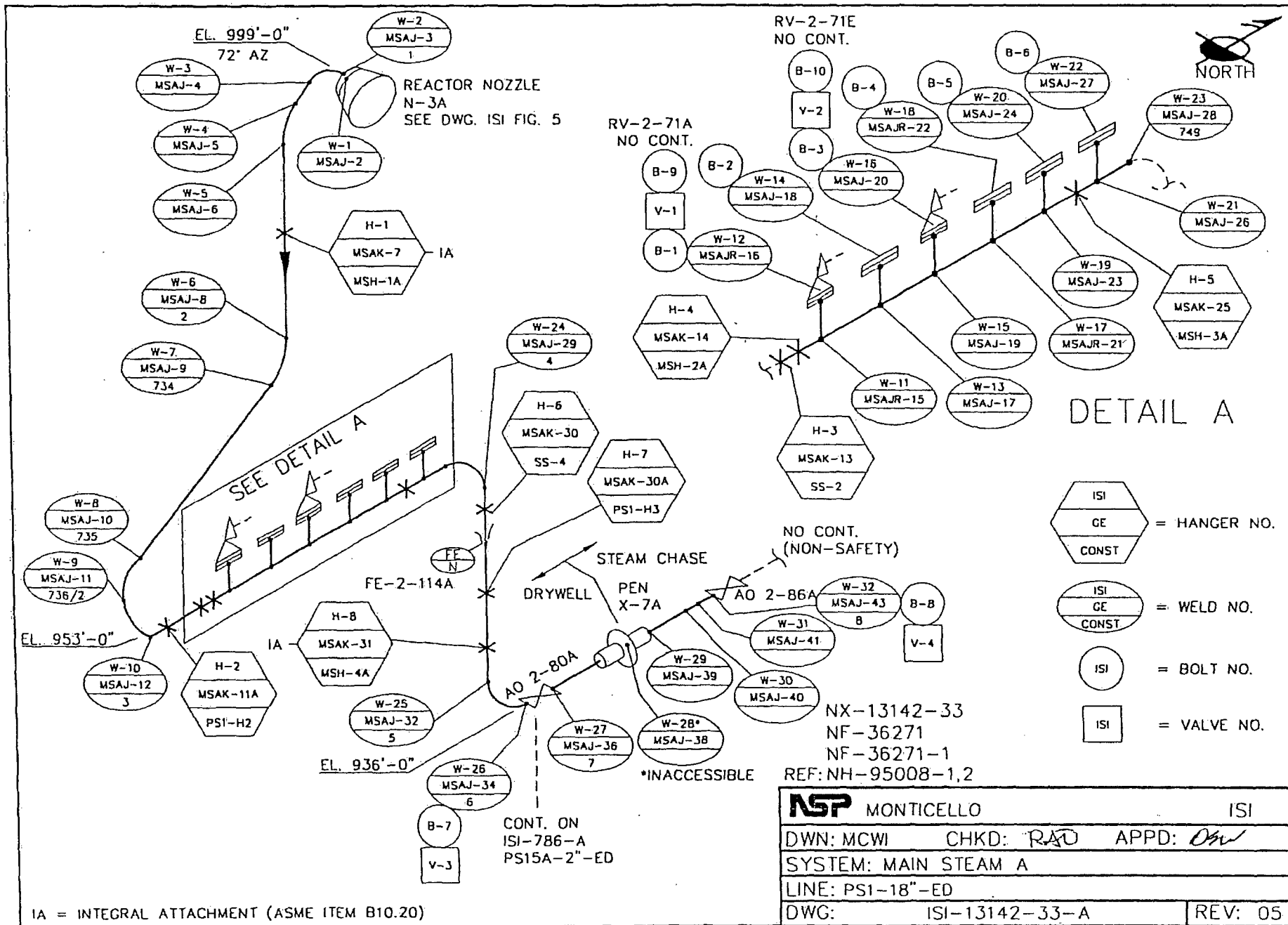
REF: NX-13142-31

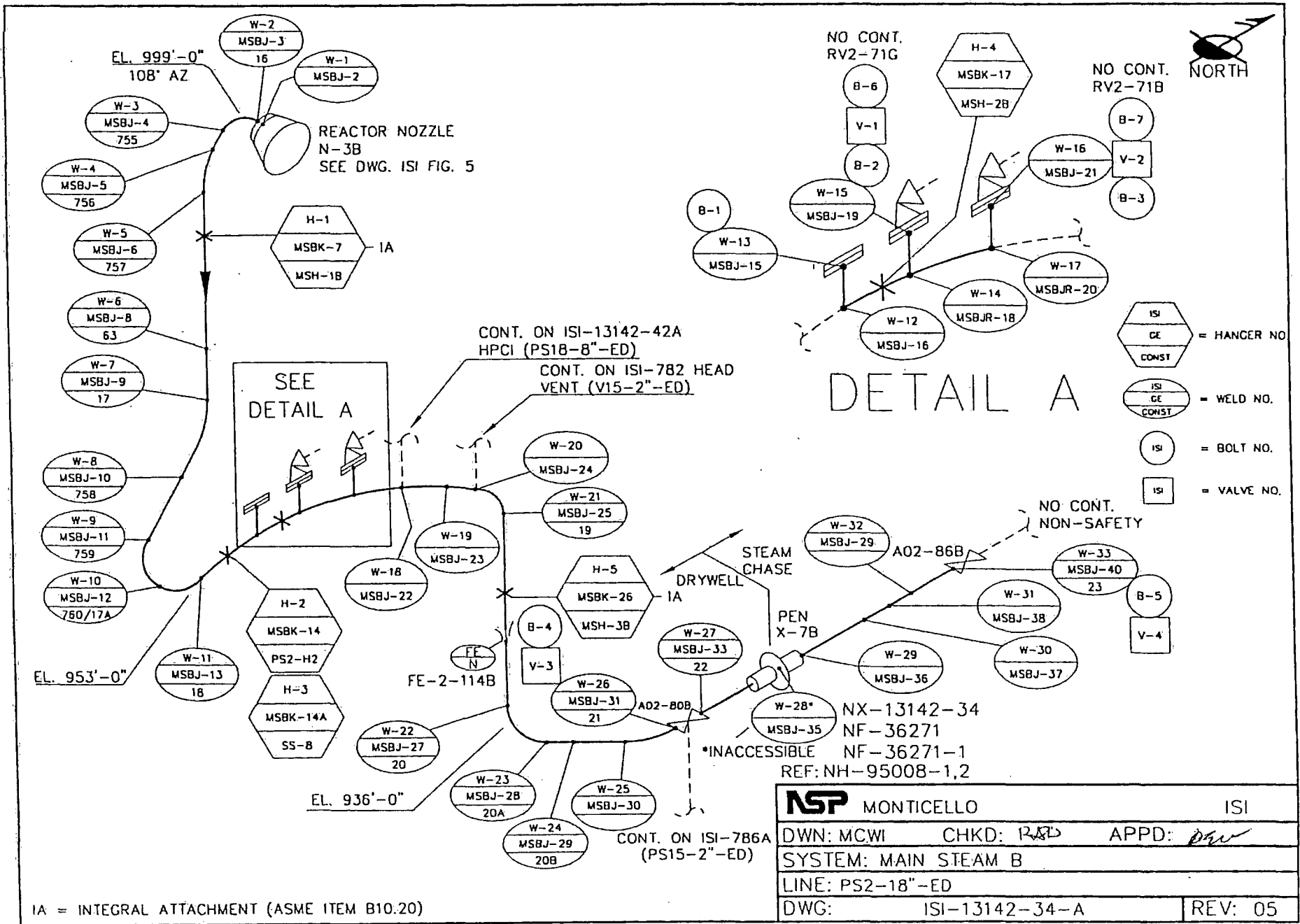
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RSD</i>	APPD: <i>DW</i>
SYSTEM: CORE SPRAY "A" DISCHARGE		
LINE: TW11-10"-GE		
DWG: ISI-13142-31-C	REV: 05	

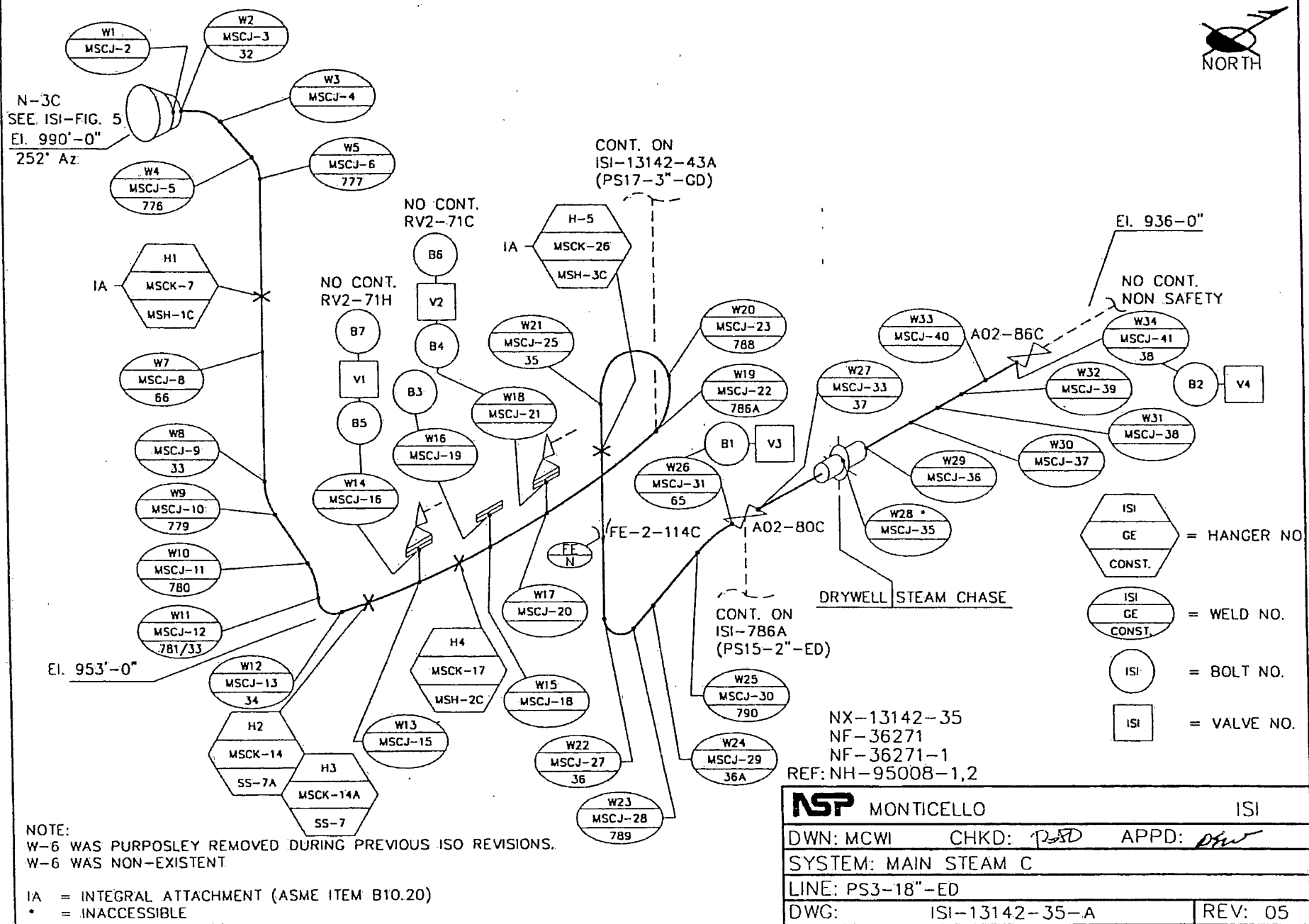


REF: NX-13142-31

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>pmj</i>
SYSTEM: CORE SPRAY "A" DISCHARGE		
LINE: TW12-8"-HE		
DWG:	ISI-13142-31-D	REV: 02







N-3C
SEE ISI-FIG. 5
El. 990'-0"
252' Az.

CONT. ON
ISI-13142-43A
(PS17-3"-GD)

NO CONT.
RV2-71C

NO CONT.
RV2-71H

El. 936-0"

NO CONT.
NON SAFETY

FE-2-114C

CONT. ON
ISI-786A
(PS15-2"-ED)

DRYWELL STEAM CHASE

- ISI
GE
CONST. = HANGER NO
- ISI
GE
CONST. = WELD NO.
- ISI = BOLT NO.
- ISI = VALVE NO.

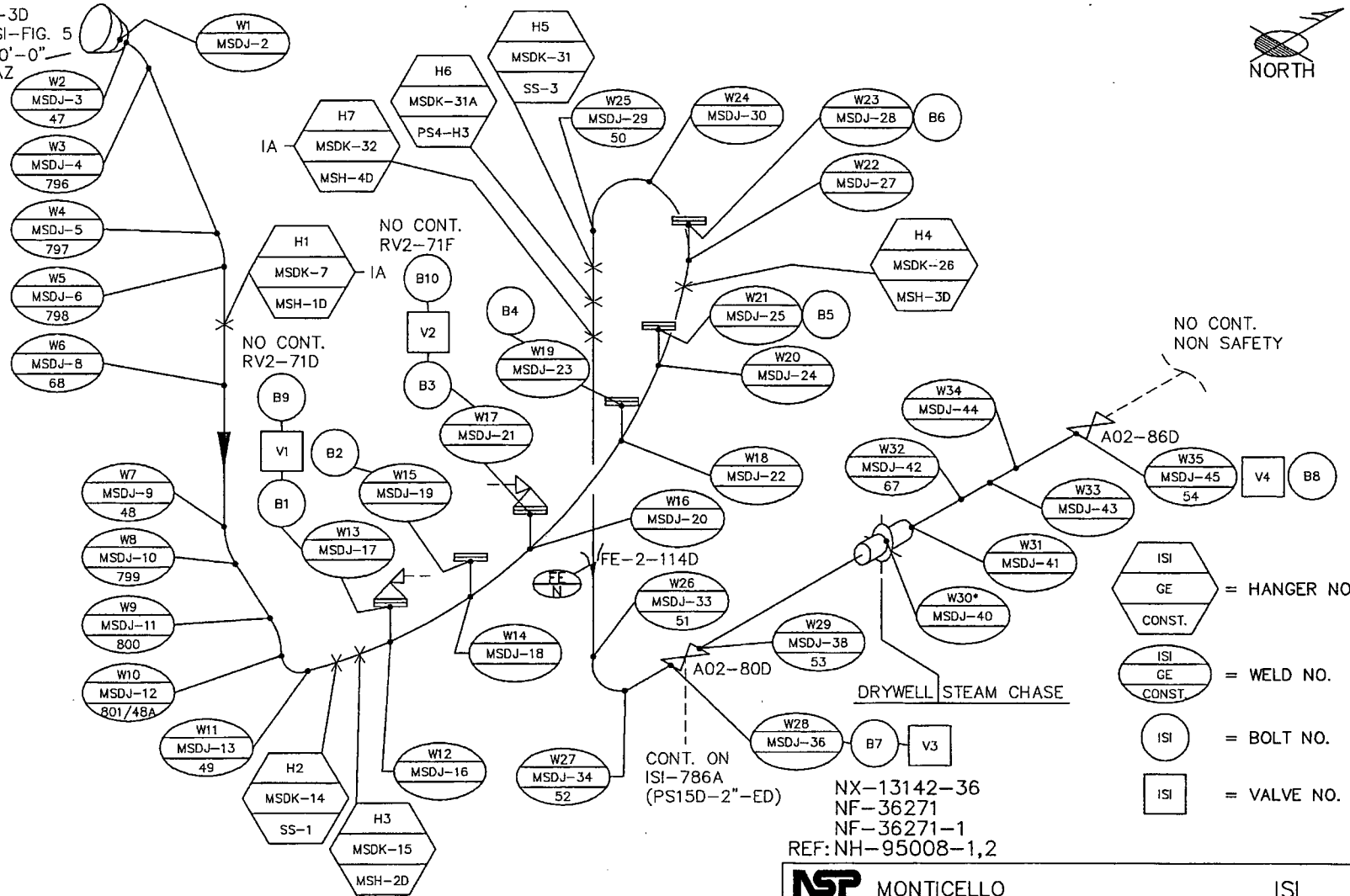
NX-13142-35
NF-36271
NF-36271-1
REF: NH-95008-1,2

NOTE:
W-6 WAS PURPOSLEY REMOVED DURING PREVIOUS ISO REVISIONS.
W-6 WAS NON-EXISTENT.

IA = INTEGRAL ATTACHMENT (ASME ITEM B10.20)
* = INACCESSIBLE

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>PSD</i>	APPD: <i>DM</i>
SYSTEM: MAIN STEAM C		
LINE: PS3-18"-ED		
DWG: ISI-13142-35-A	REV: 05	

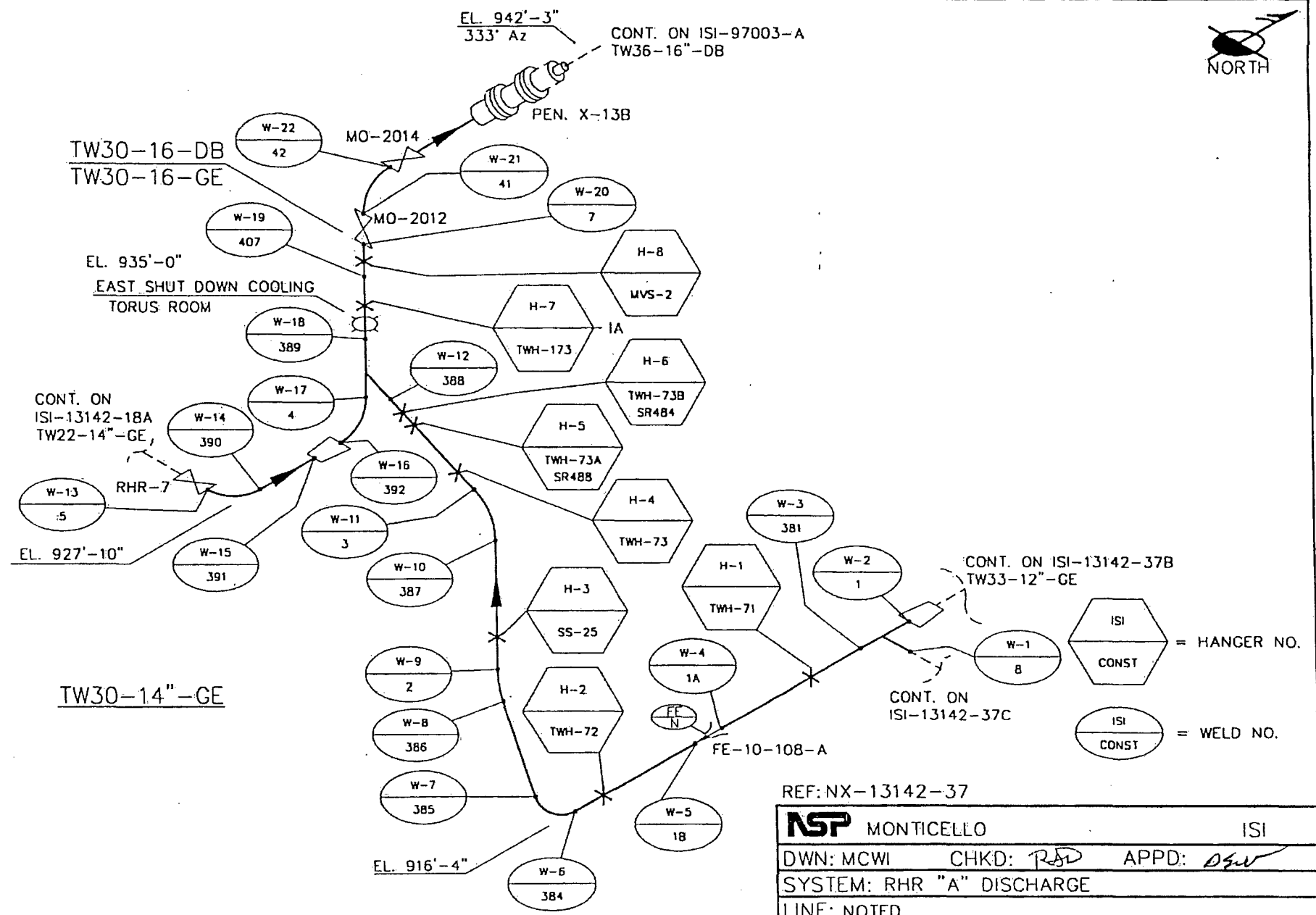
N-3D
SEE ISI-FIG. 5
El. 990'-0"
288° AZ



CONT. ON
ISI-786A
(PS15D-2"-ED)
NX-13142-36
NF-36271
NF-36271-1
REF: NH-95008-1,2

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>TmJ</i>
SYSTEM: MAIN STEAM D		
LINE: PS4-18"-ED		
DWG: ISI-13142-36-A	REV: 06	

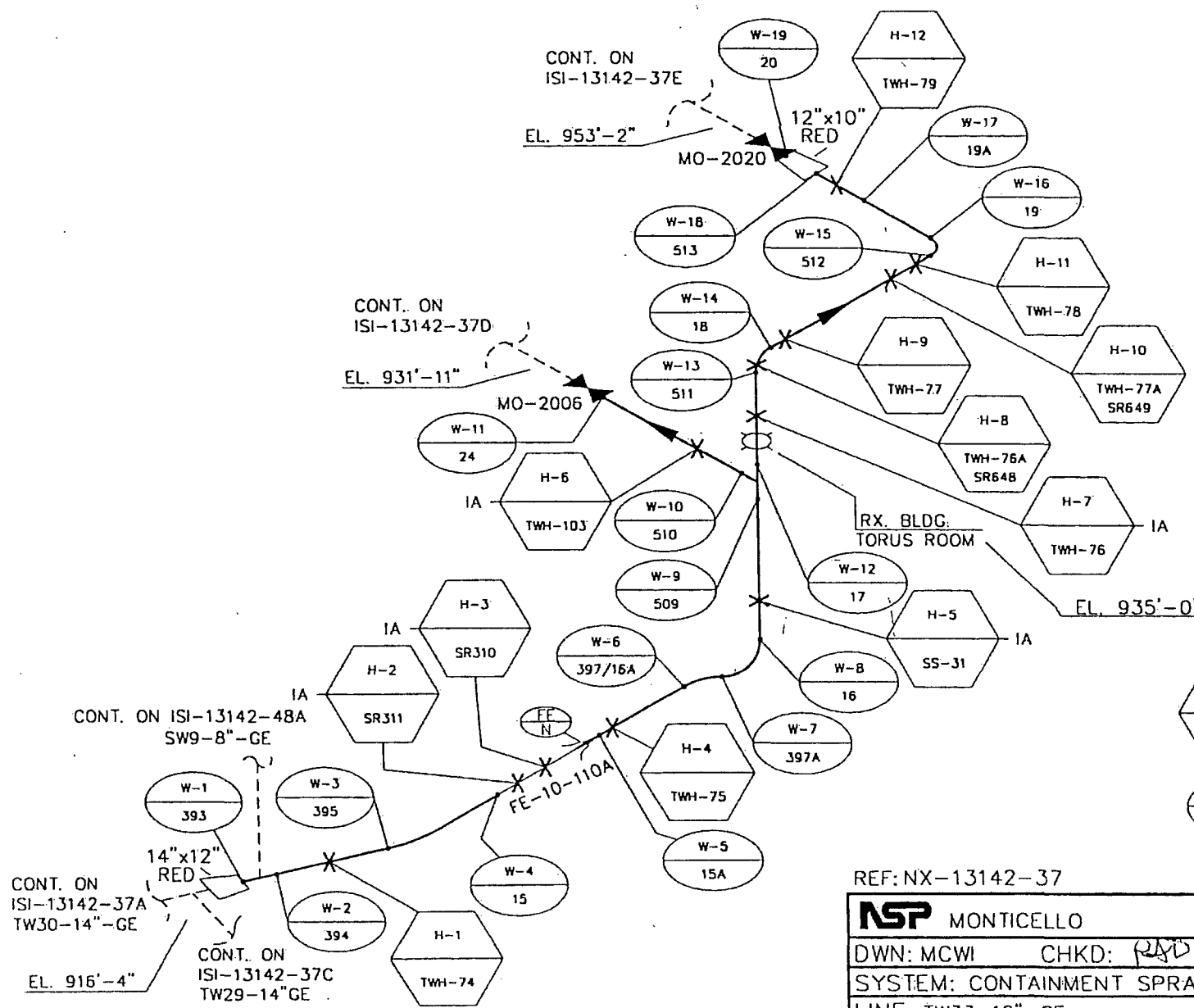
IA = INTEGRAL ATTACHMENT (ASME ITEM B10.20)
* = INACCESSIBLE

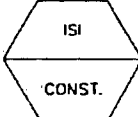
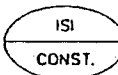


IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

REF: NX-13142-37

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RSD</i>	APPD: <i>OSW</i>
SYSTEM: RHR "A" DISCHARGE		
LINE: NOTED		
DWG:	ISI-13142-37-A	REV: 04

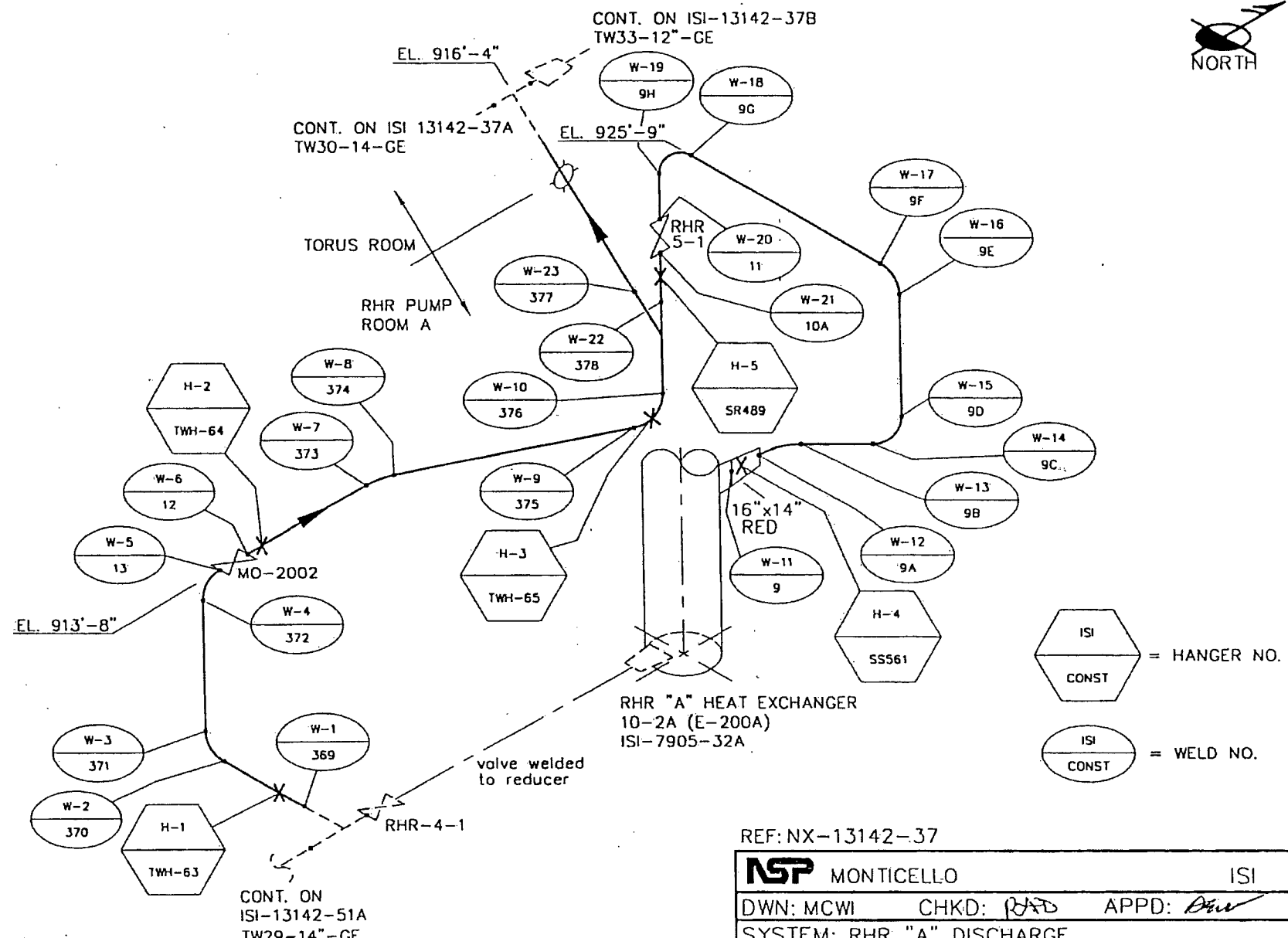


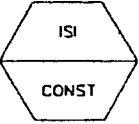
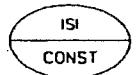
 = HANGER NO.
 CONST.
 = WELD NO.
 CONST.

REF: NX-13142-37

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>MD</i>	APPD: <i>DEW</i>
SYSTEM: CONTAINMENT SPRAY (RHR "A")		
LINE: TW33-12"-GE		
DWG:	ISI-13142-37-B	REV: 05

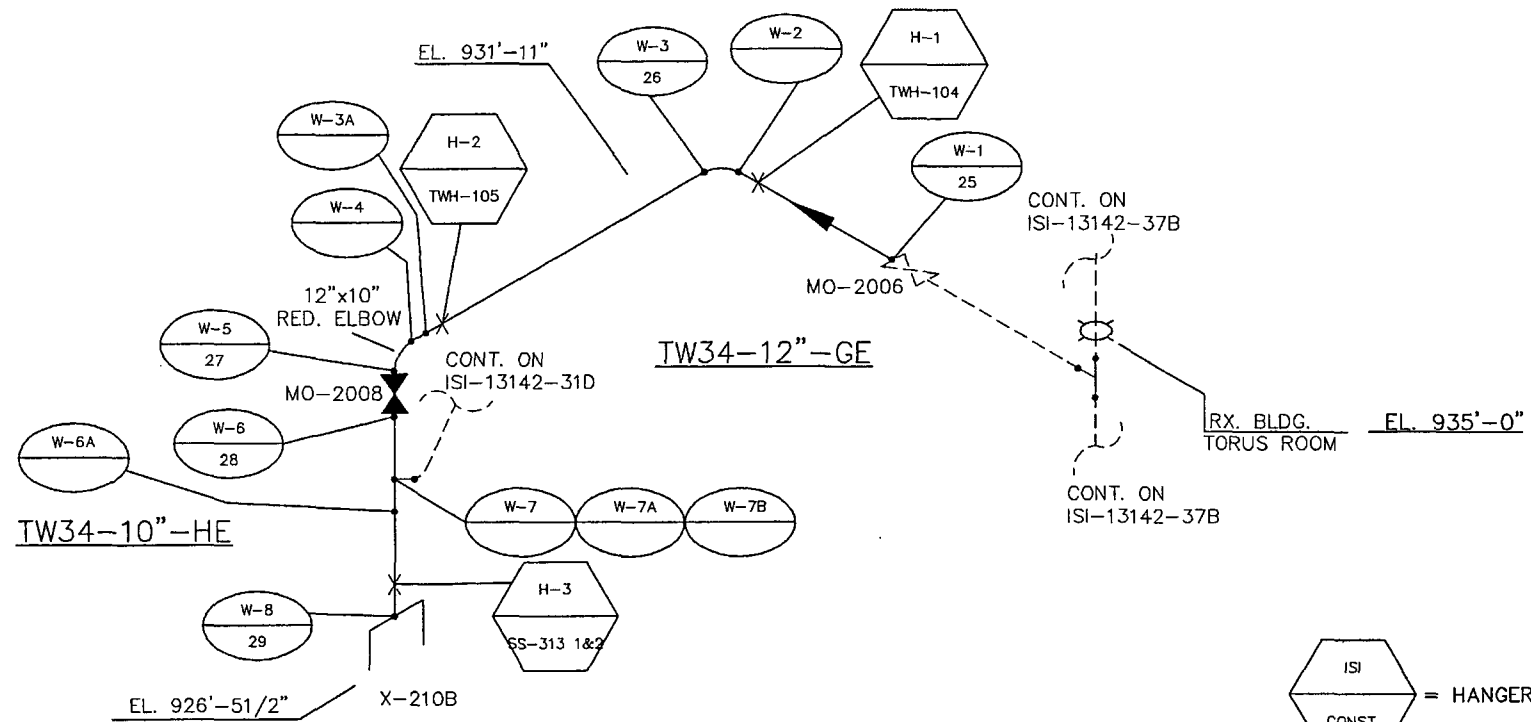
IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

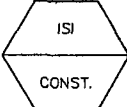
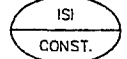


 = HANGER NO.
 = WELD NO.

REF: NX-13142-37

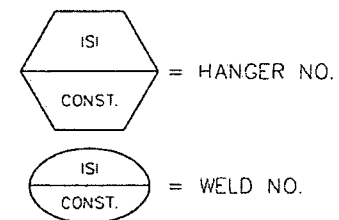
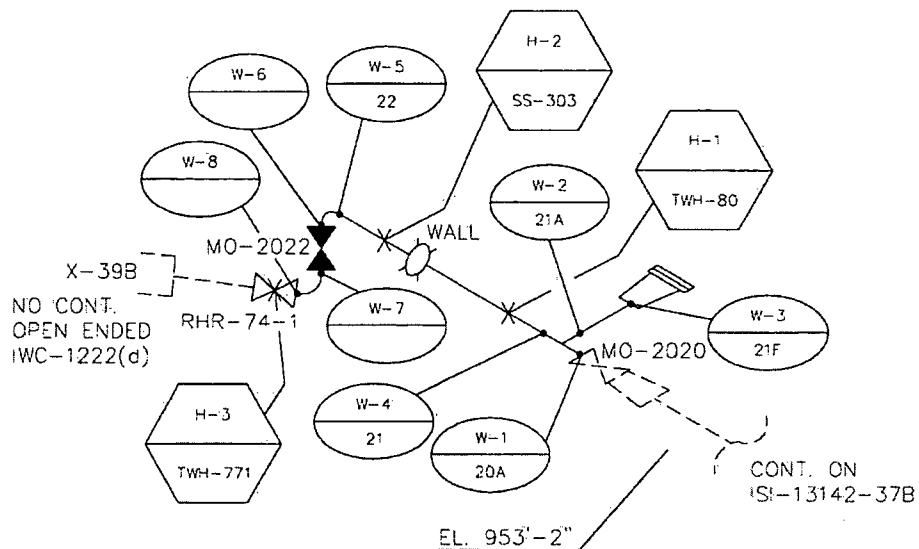
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>BJD</i>	APPD: <i>DW</i>
SYSTEM: RHR "A" DISCHARGE		
LINE: TW30-14"-GE		
DWG:	ISI-13142-37-C	REV: 05



 = HANGER NO.
 = WELD NO.

REF: NX-13142-37

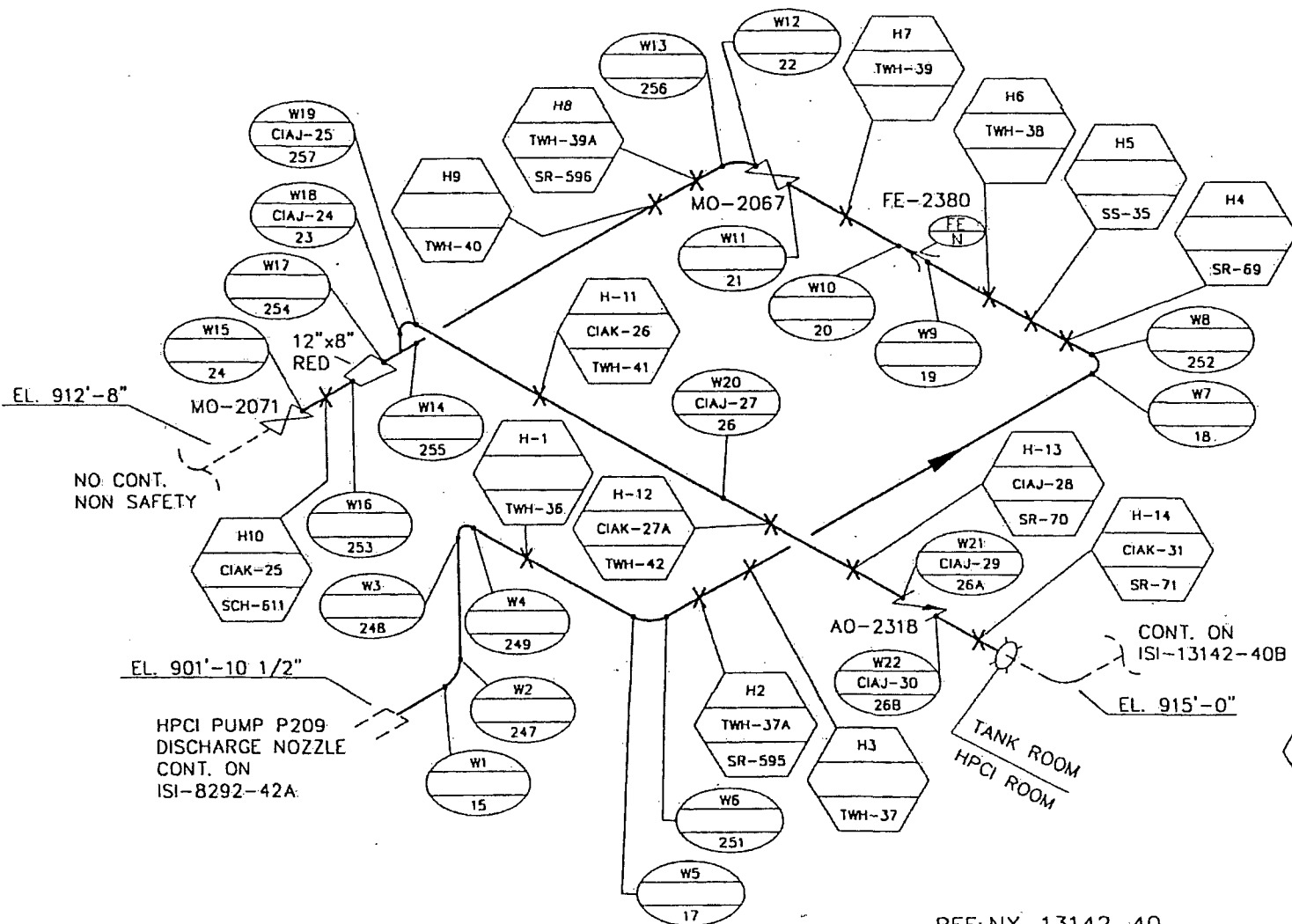
NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JB</i>	APPD: <i>[Signature]</i>
SYSTEM: CONTAINMENT SPRAY (RHR "A")		
LINE: TW34-12"-GE & TW34-10"-HE		
DWG:	ISI-13142-37-D	REV: 04



REF: NX-13142-37

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: CONTAINMENT SPRAY (RHR "A")		
LINE: TW33-10"-GE		
DWG:	ISI-13142-37-E	REV: 01

NOTE:
LOCATED IN REACTOR BLDG EL. 935' ABOVE EAST CRD SCRAM & INSTRUMENT RACKS.

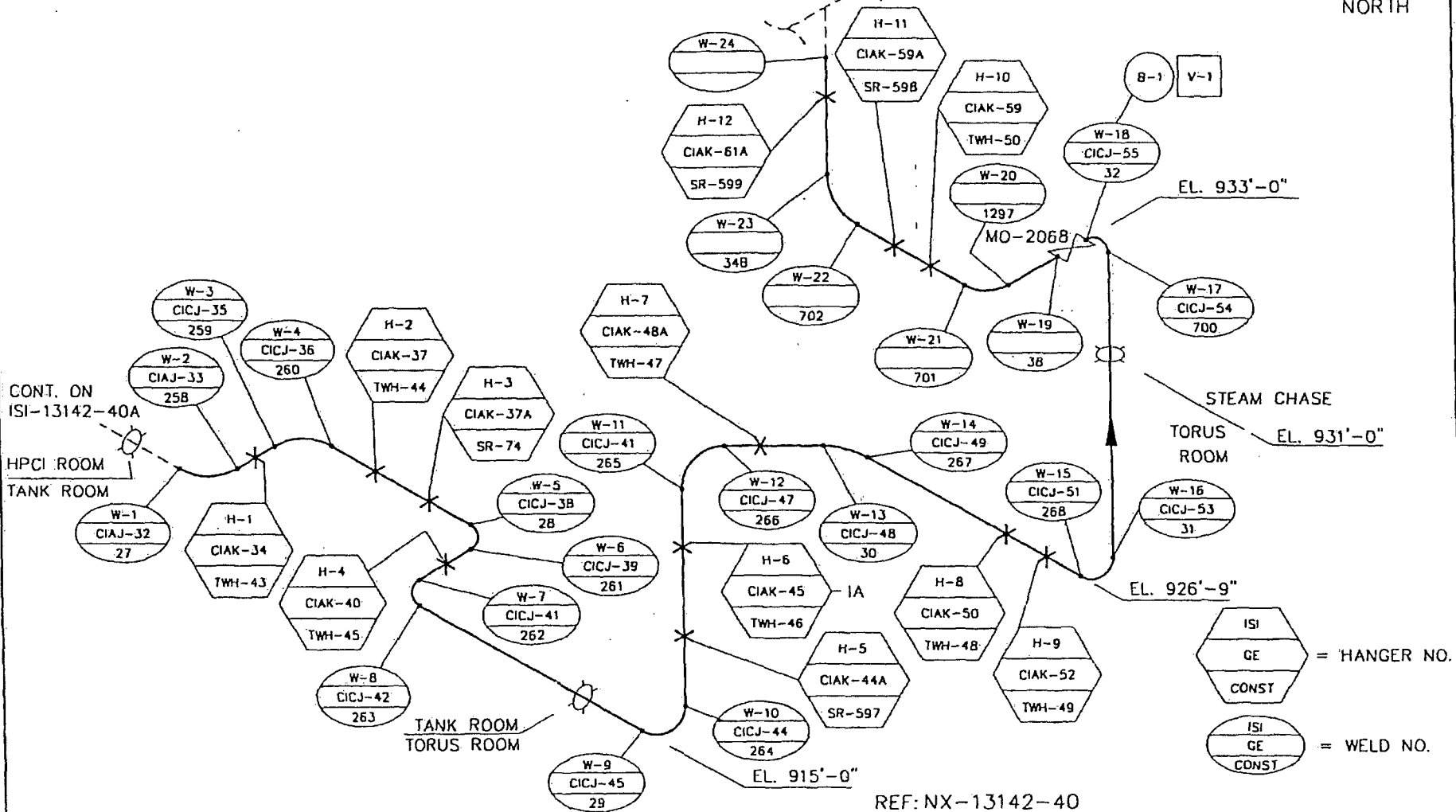


ISI
 GE
 CONST. = HANGER NO.
 ISI
 GE
 CONST. = WELD NO.

REF: NX-13142-40

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAJ</i>	APPD: <i>DW</i>
SYSTEM: HPCI WATER SIDE DISCHARGE		
LINE: TW3-12"-ED		
DWG:	ISI-13142-40-A	REV: 04

CONT. ON
ISI-13142-53A EL. 940'-6"



CONT. ON
ISI-13142-40A
HPCI ROOM
TANK ROOM

TANK ROOM
TORUS ROOM

STEAM CHASE
TORUS ROOM
EL. 931'-0"

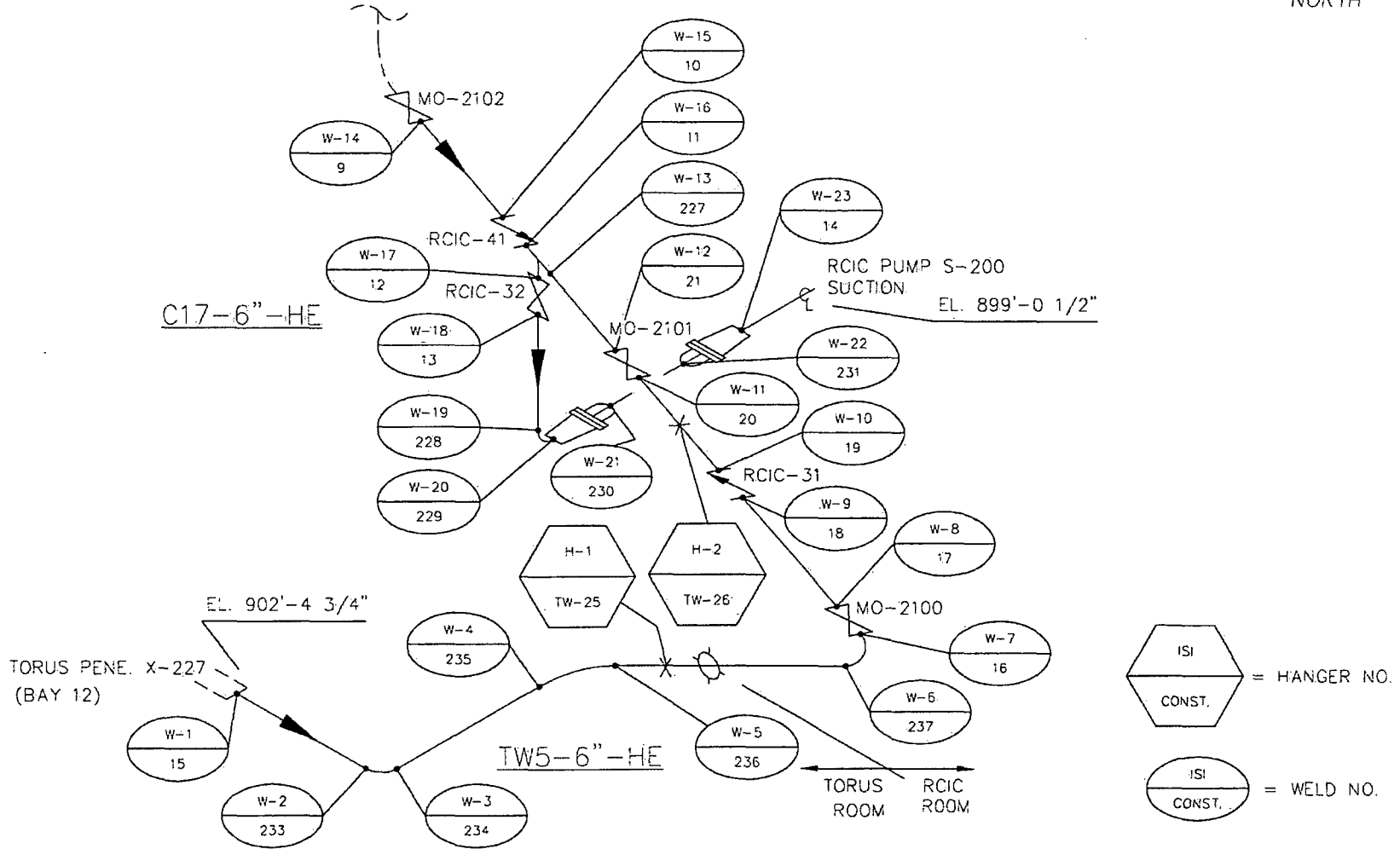
ISI
GE
CONST = 'HANGER NO.
ISI
GE
CONST = WELD NO.

REF: NX-13142-40

NSP MONTICELLO	ISI
DWN: MCWI	CHKD: <i>RA</i> APPD: <i>DSW</i>
SYSTEM: HPCI WATER SIDE DISCHARGE	
LINE: TW3-12"-ED	
DWG: ISI-13142-40-B	REV: 05

IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

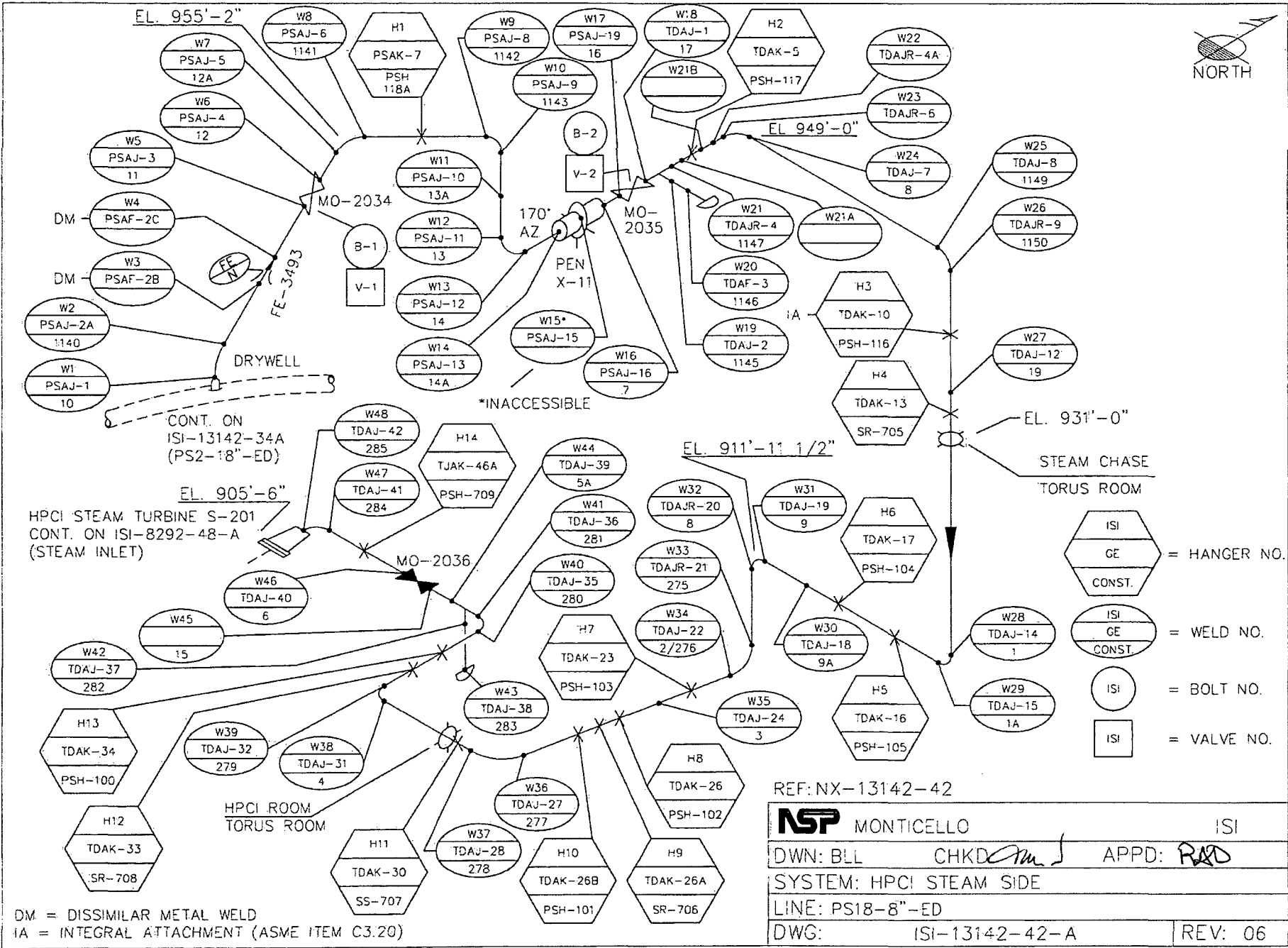
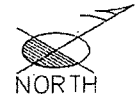
FROM CONDENSATE STORAGE TANK
NO CONT. (NON-SAFETY)



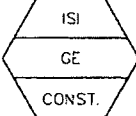
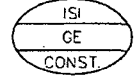


ISI
CONST. = HANGER NO.
ISI
CONST. = WELD NO.

REF: NX-13142-41

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>gm</i>	APPD: <i>RAD</i>
SYSTEM: RCIC WATER SUCTION		
LINE: TW5-6"-HE; C17-6"-HE		
DWG:	ISI-13142-41-A	REV: 05



STEAM CHASE
TORUS ROOM

-  = HANGER NO.
-  = WELD NO.
-  = BOLT NO.
-  = VALVE NO.

CONT. ON
ISI-13142-34A
(PS2-18"-ED)

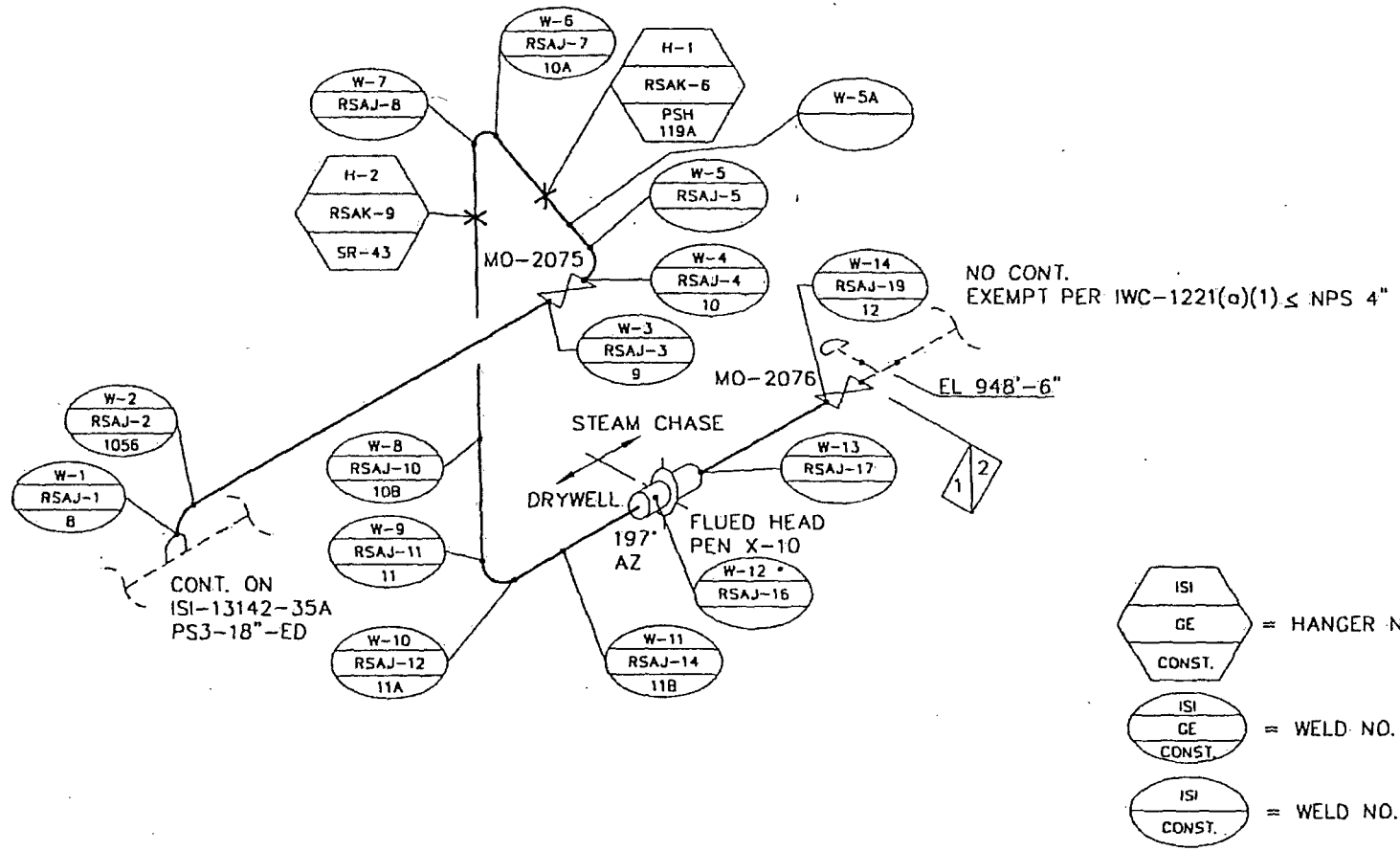
EL. 905'-6"

HPCI STEAM TURBINE S-201
CONT. ON ISI-8292-48-A
(STEAM INLET)

HPCI ROOM
TORUS ROOM

REF: NX-13142-42		ISI
NSP MONTICELLO		
DWN: BLL	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: HPCI STEAM SIDE		
LINE: PS18-8"-ED		
DWG: ISI-13142-42-A	REV: 06	

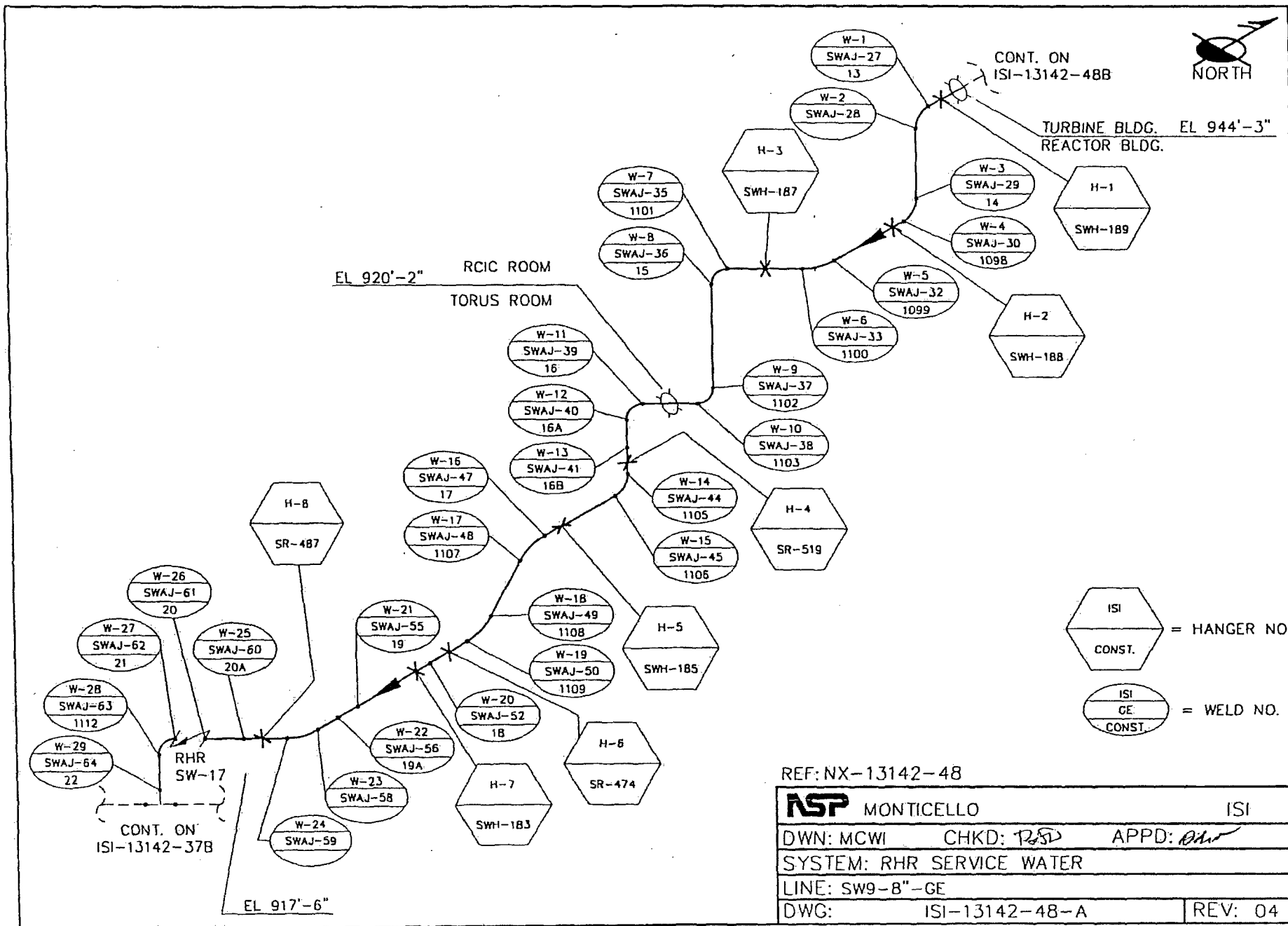
DM = DISSIMILAR METAL WELD
IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

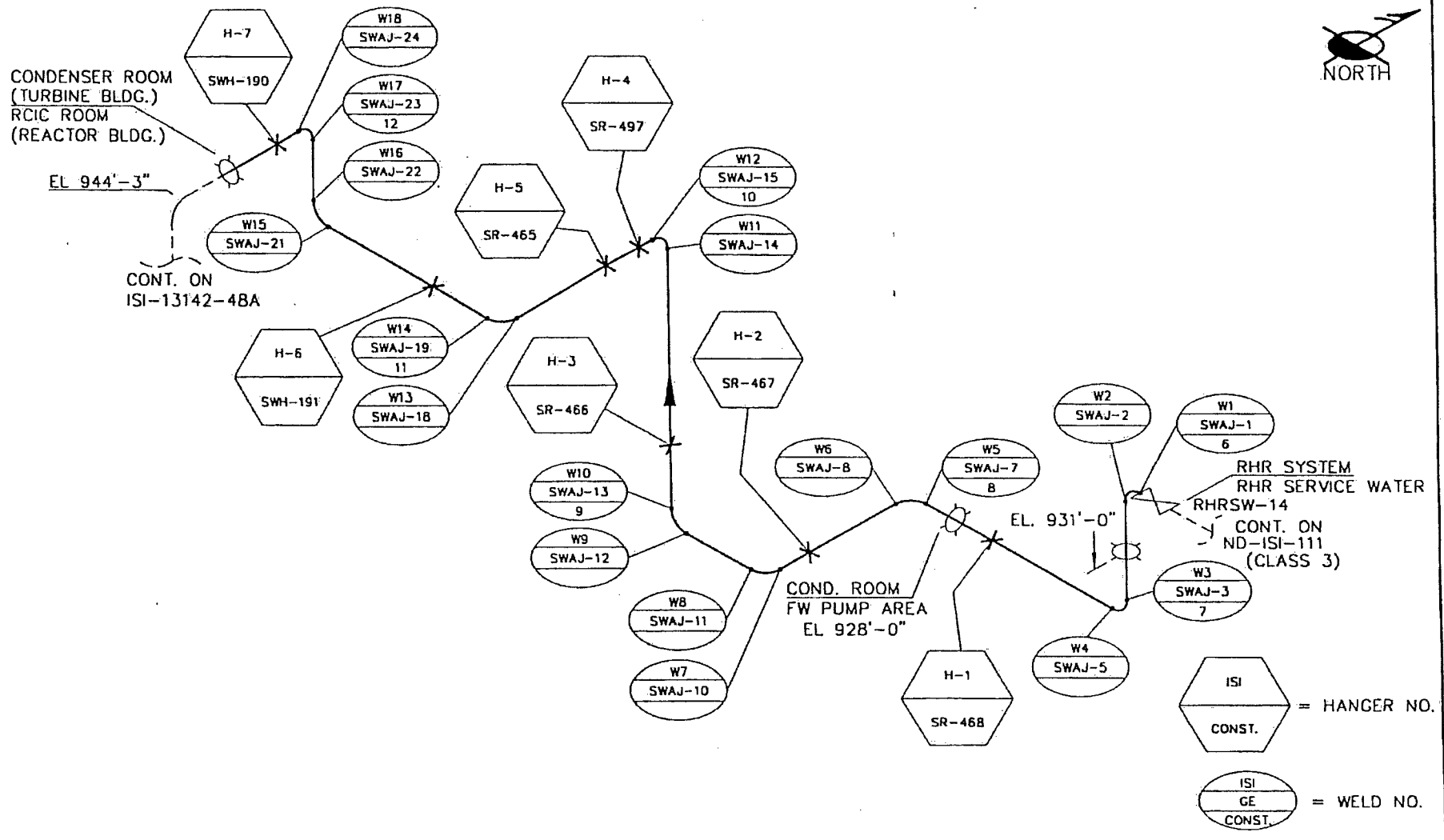


REF: NX-13142-43

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAW</i>	APPD: <i>DM</i>
SYSTEM: RCIC STEAM SIDE		
LINE: PS17-3"-ED		
DWG: ISI-13142-43-A	REV: 05	

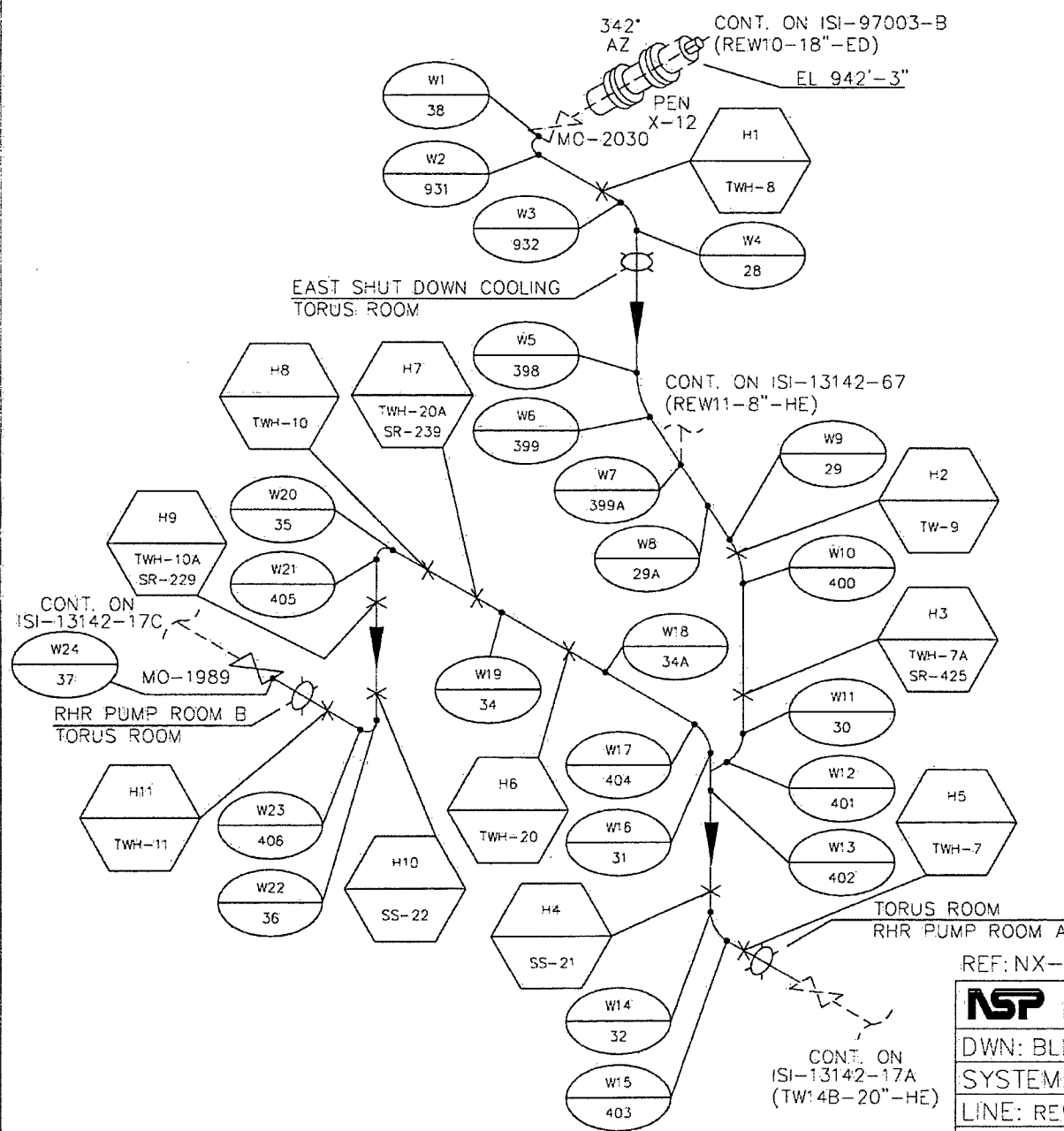
* = INACCESSIBLE

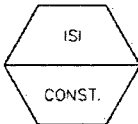
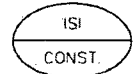




REF: NX-13142-48

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAD</i>	APPD: <i>DW</i>
SYSTEM: RHR SERVICE WATER		
LINE: SW9-8"-GE		
DWG:	ISI-13142-48-B	REV: 05



 = HANGER NO.
 = WELD NO.

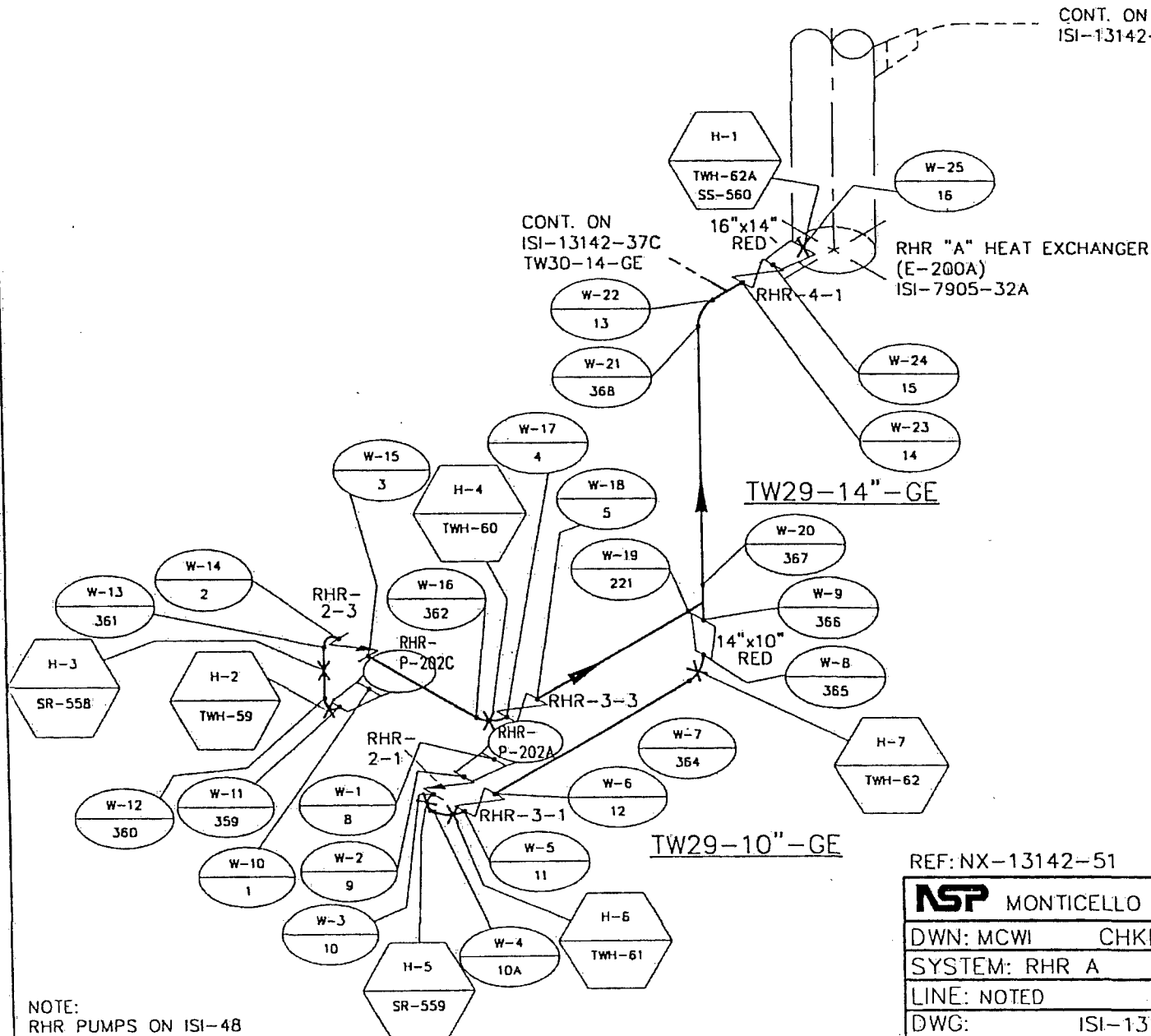
REF: NX-13142-49

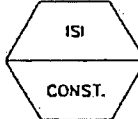
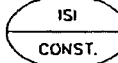
NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>gm</i>	APPD: <i>RAD</i>
SYSTEM: RHR/SDC		
LINE: REW10-18"-HE		
DWG: ISI-13142-49-A	REV: 04	

CONT. ON
 ISI-13142-17A
 (TW14B-20"-HE)



CONT. ON
ISI-13142-37C



 = HANGER NO.
 = WELD NO.

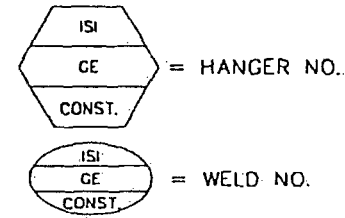
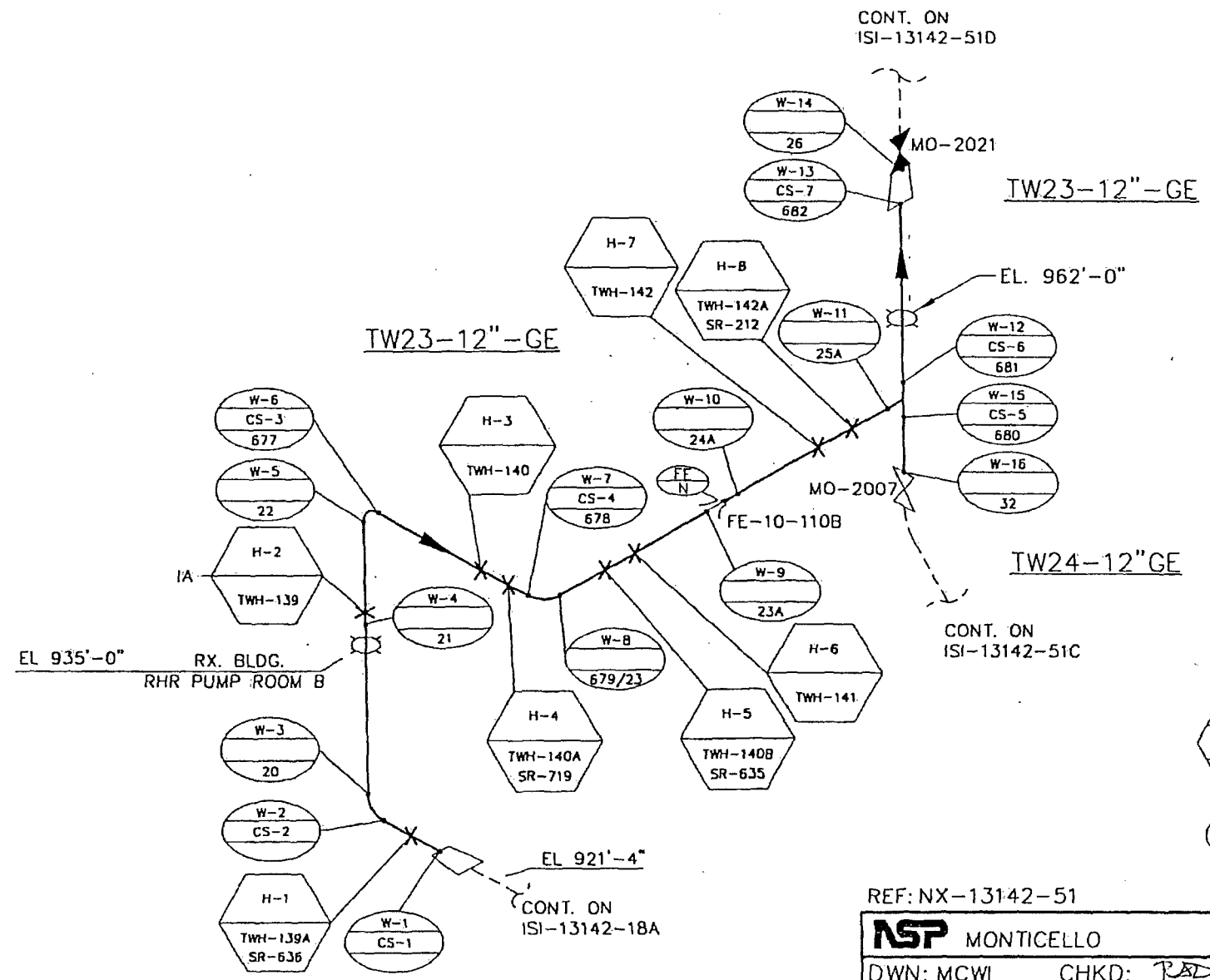
REF: NX-13142-51

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>R&D</i>	APPD: <i>AW</i>
SYSTEM: RHR A		
LINE: NOTED		
DWG: ISI-13142-51-A	REV: 05	

NOTE:
RHR PUMPS ON ISI-48



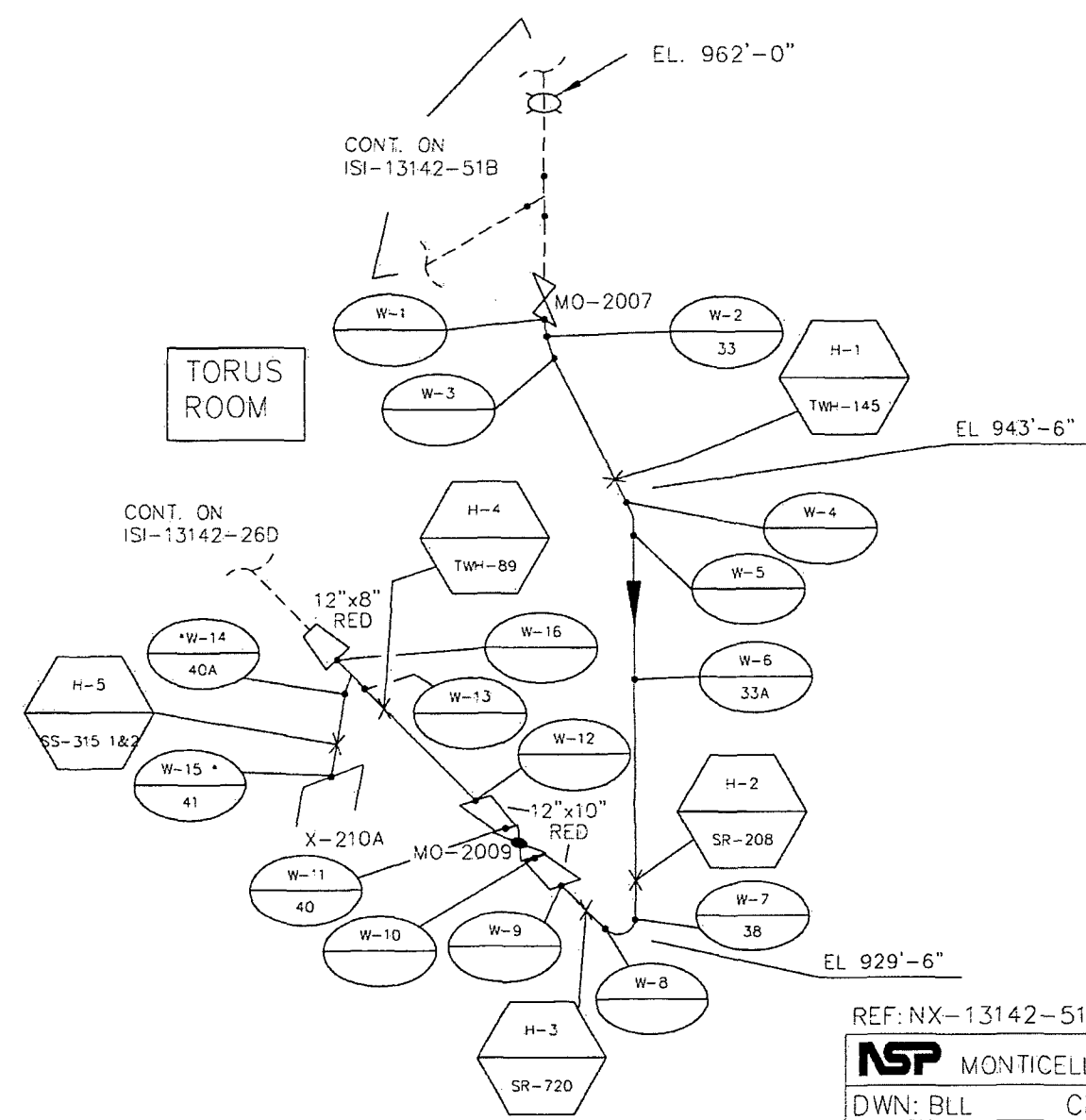
CONT. ON
ISI-13142-51D

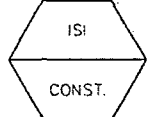



IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

REF: NX-13142-51

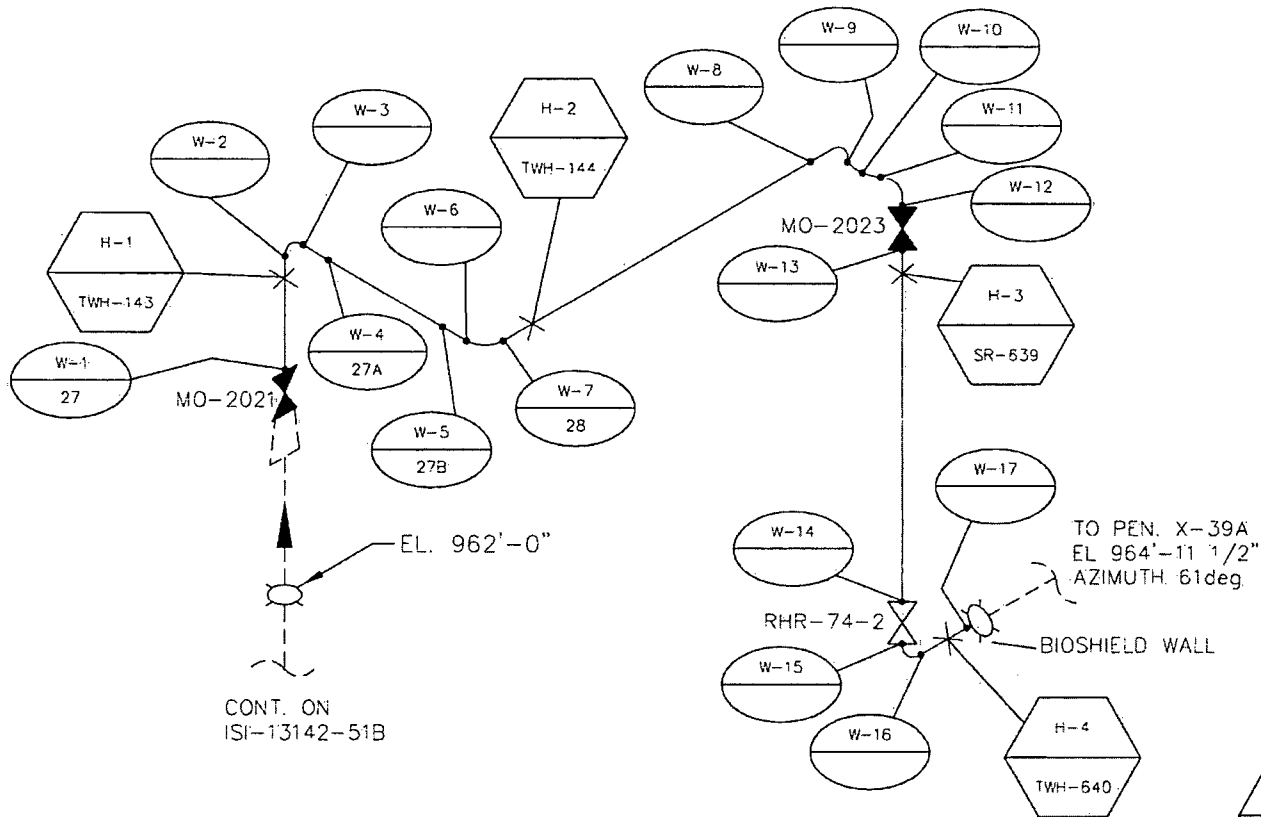
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAD</i>	APPD: <i>phw</i>
SYSTEM: RHR B		
LINE: NOTED		
DWG: ISI-13142-51-B	REV: 05	



 = HANGER NO.
 = WELD NO.

REF: NX-13142-51

NSP MONTICELLO		ISI
DWN: BLL	CHKD <i>DMJ</i>	APPD: <i>RAD</i>
SYSTEM: RHR B		
LINE: TW24-12"-GE		
DWG:	ISI-13142-51-C	REV: 02

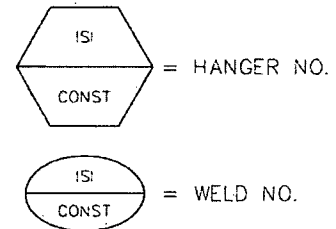


CONT. ON
ISI-13142-51B

EL. 962'-0"

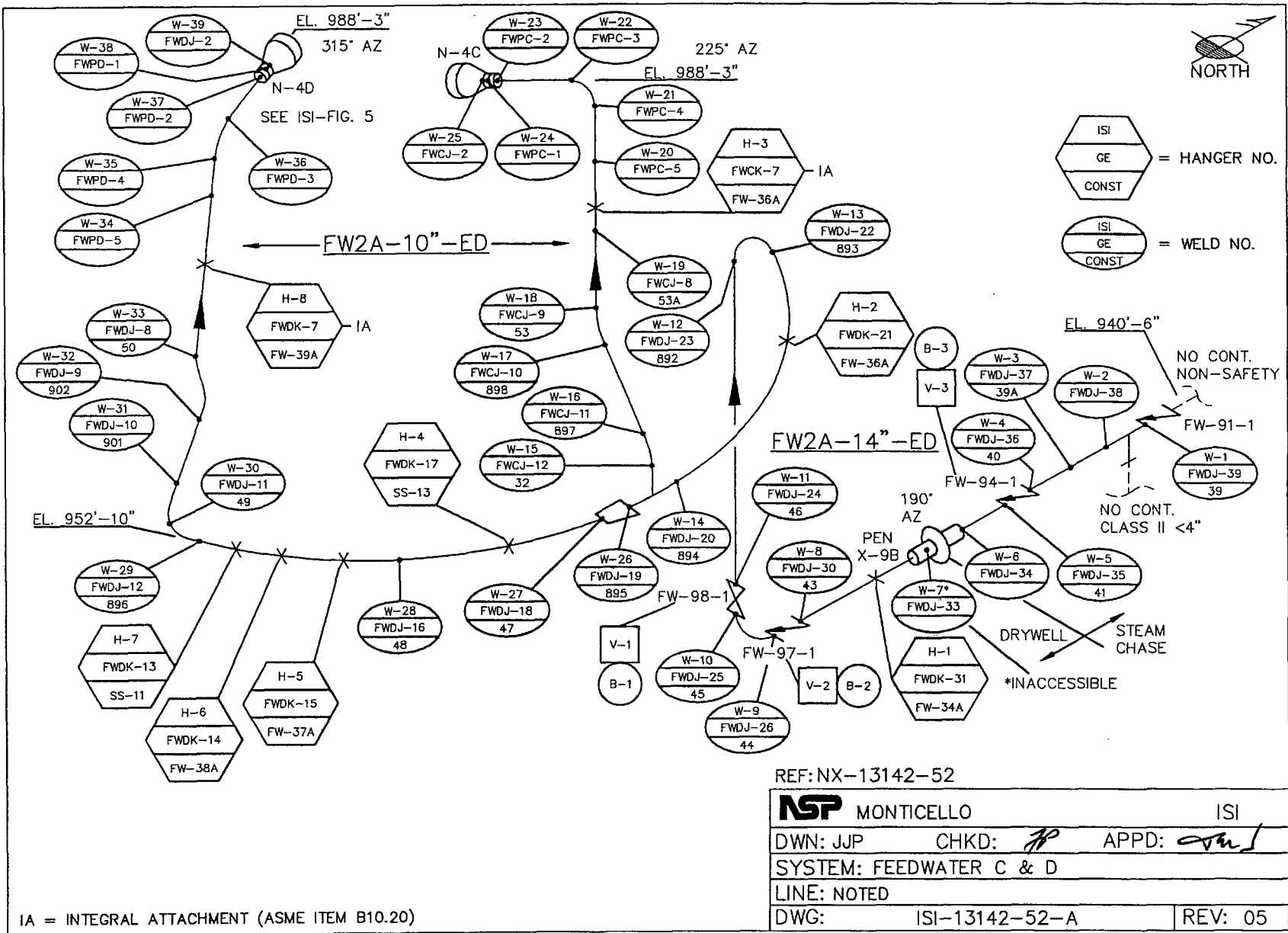
TO PEN. X-39A
EL. 964'-11 1/2"
AZIMUTH. 61deg

BIOSHIELD WALL



REF: NX-13142-51

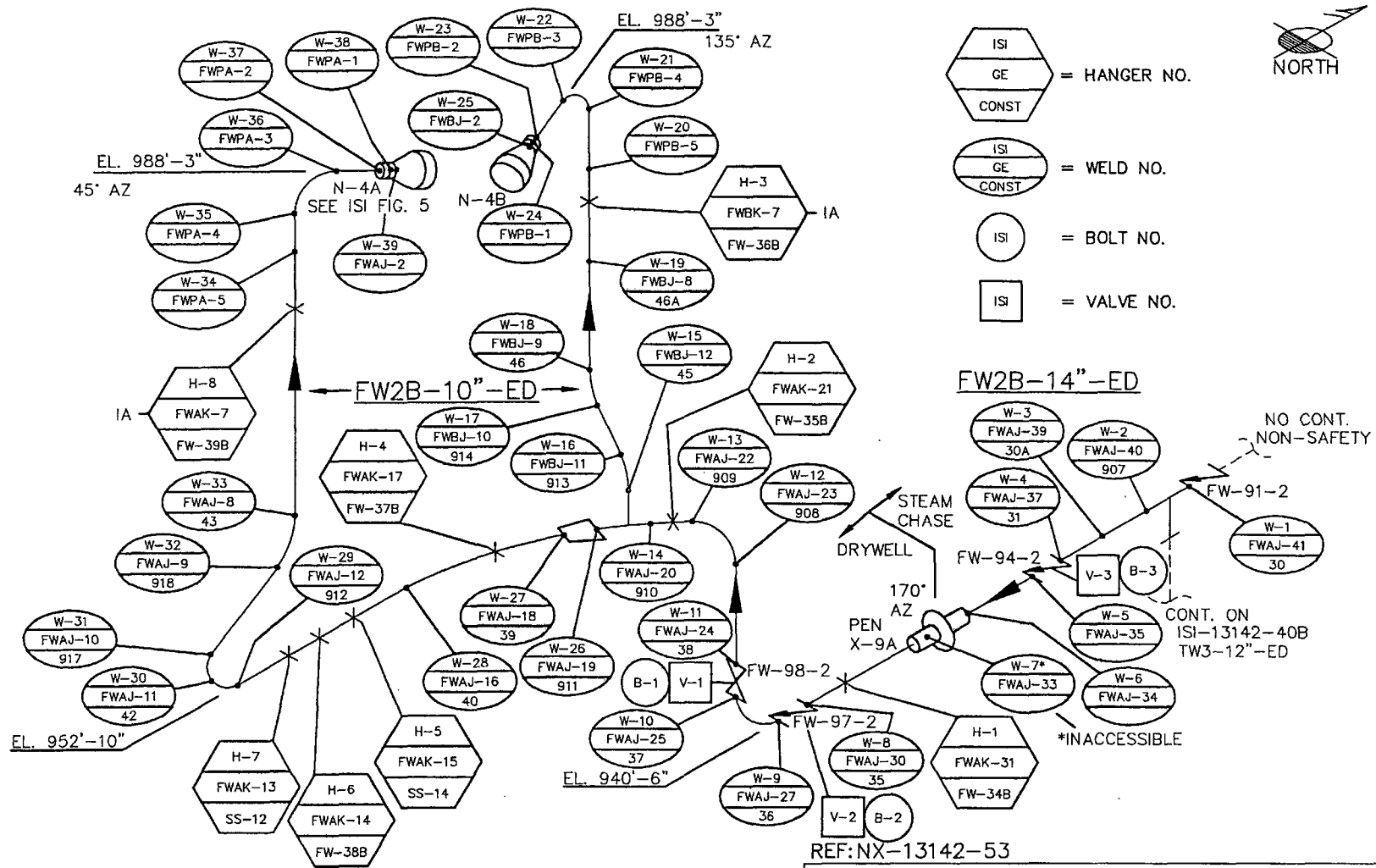
NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>gmj</i>	APPD: <i>RW</i>
SYSTEM: RHR B		
LINE: TW23-10"-GE		
DWG:	ISI-13142-51-D	REV: 01



IA = INTEGRAL ATTACHMENT (ASME ITEM B10.20)

REF: NX-13142-52

NSP MONTICELLO		ISI
DWN: JJP	CHKD: JP	APPD: [signature]
SYSTEM: FEEDWATER C & D		
LINE: NOTED		
DWG: ISI-13142-52-A	REV: 05	



- ISI (hexagon) = HANGER NO.
- ISI (oval) = WELD NO.
- ISI (circle) = BOLT NO.
- ISI (square) = VALVE NO.

NO CONT. NON-SAFETY

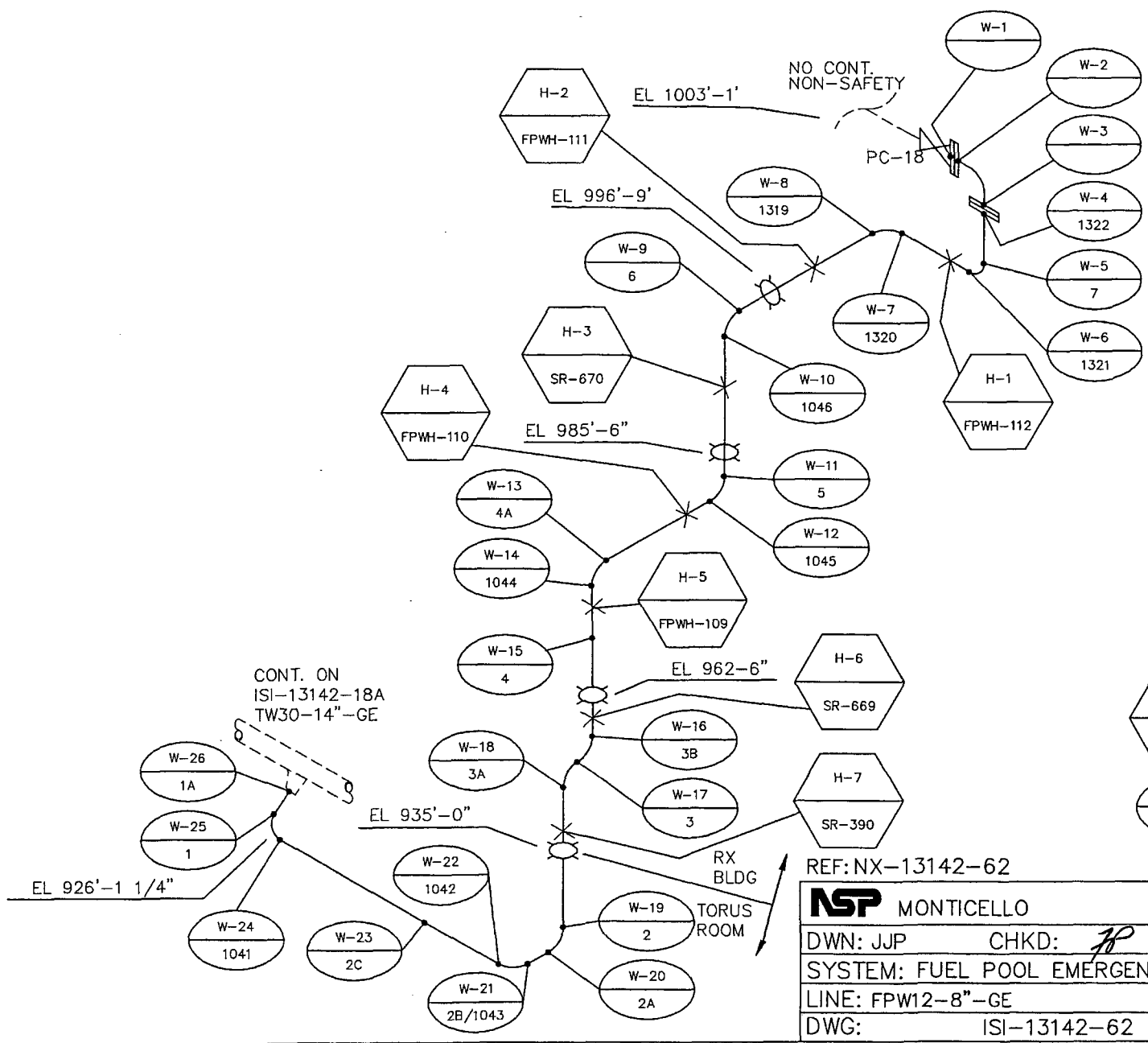
CONT. ON ISI-13142-40B TW3-12"-ED

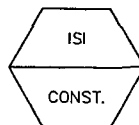

*INACCESSIBLE

REF: NX-13142-53

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>RMJ</i>
SYSTEM: FEEDWATER A & B		
LINE: FW2B-10"-ED & FW2B-14"-ED		
DWG:	ISI-13142-53-A	REV: 06

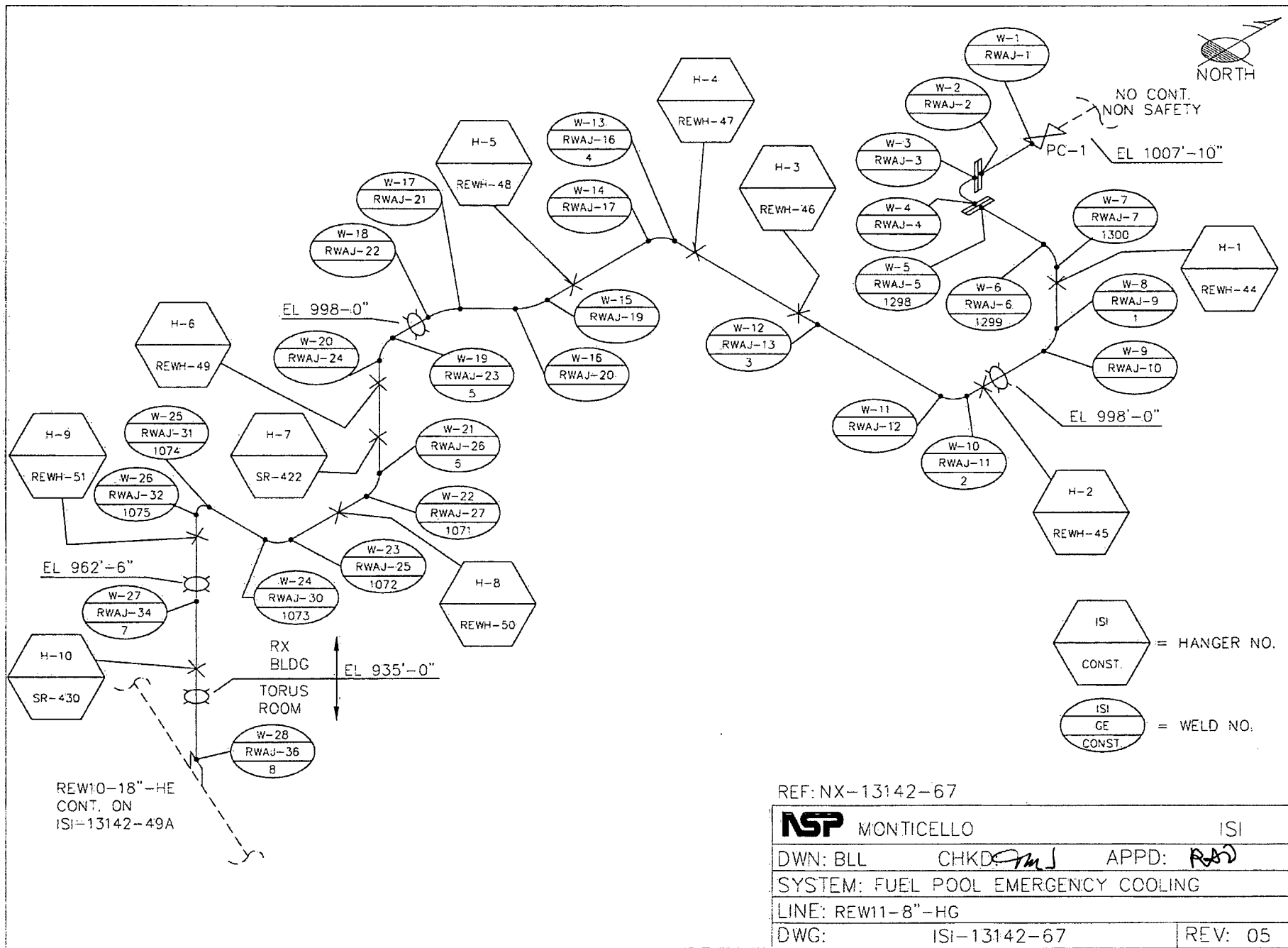
IA = INTEGRAL ATTACHMENT (ASME ITEM B10.20)



 = HANGER NO.
 = WELD NO.

REF: NX-13142-62

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>CSM</i>
SYSTEM: FUEL POOL EMERGENCY COOLING		
LINE: FPW12-8"-GE		
DWG:	ISI-13142-62	REV: 05



REF: NX-13142-67

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>SMJ</i>	APPD: <i>RAJ</i>
SYSTEM: FUEL POOL EMERGENCY COOLING		
LINE: REW11-8"-HG		
DWG:	ISI-13142-67	REV: 05

N8A
SEE ISI-FIG. 5

EL 960'-2"
60°AZ

INSTRUMENT A

W1
JPAFR-2 DM

N8B
SEE ISI-FIG. 5

EL 960'-2"
240°AZ

INSTRUMENT B

W2
JPBFR-2 DM

ISI
CONST. = WELD NO.

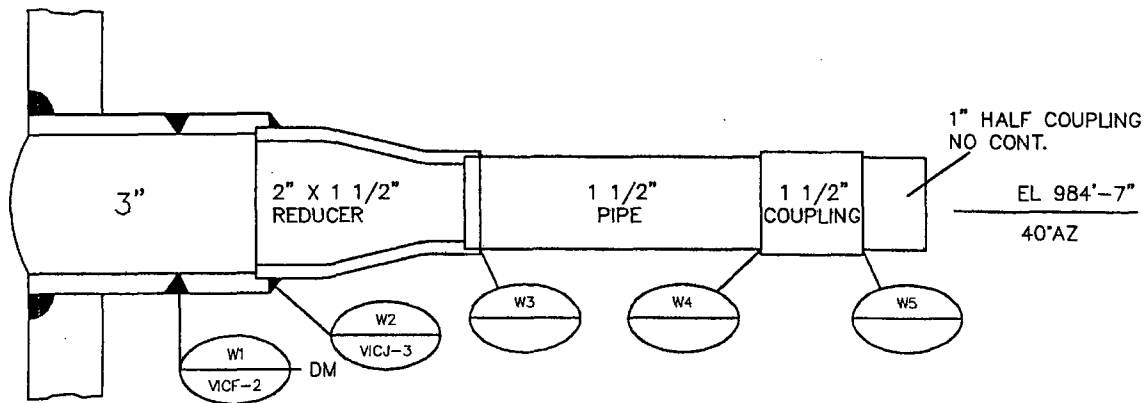
REF:

NSP MONTICELLO	ISI
DWN: MCWI	CHKD: RAG APPD: <i>AW</i>
SYSTEM: JET PUMP INSTRUMENT NOZZLE	
LINE:	
DWG: ISI-16	REV: 04

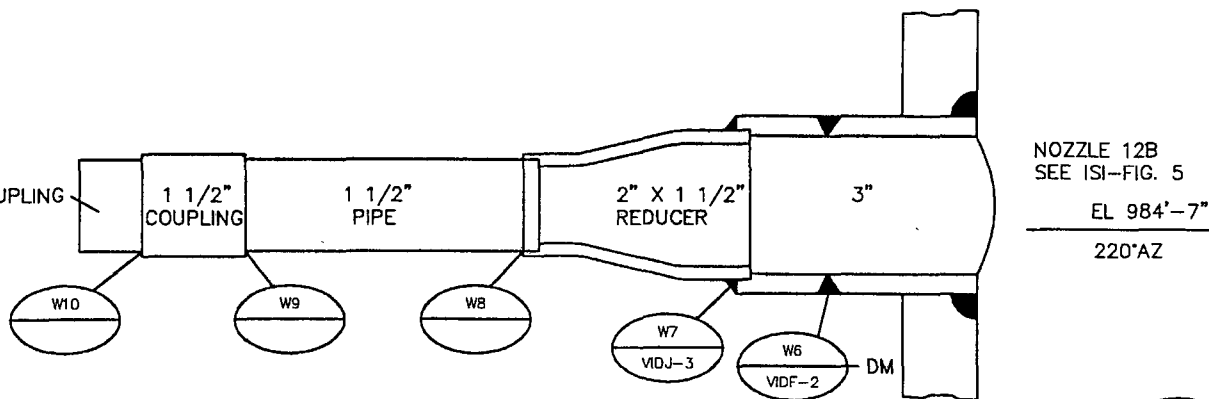
NOTE:
LOCATED IN DRYWELL

DM = DISSIMILAR METAL WELD

NOZZLE 12A
SEE ISI-FIG. 5



1" HALF COUPLING
NO CONT.



NOZZLE 12B
SEE ISI-FIG. 5

EL 984'-7"

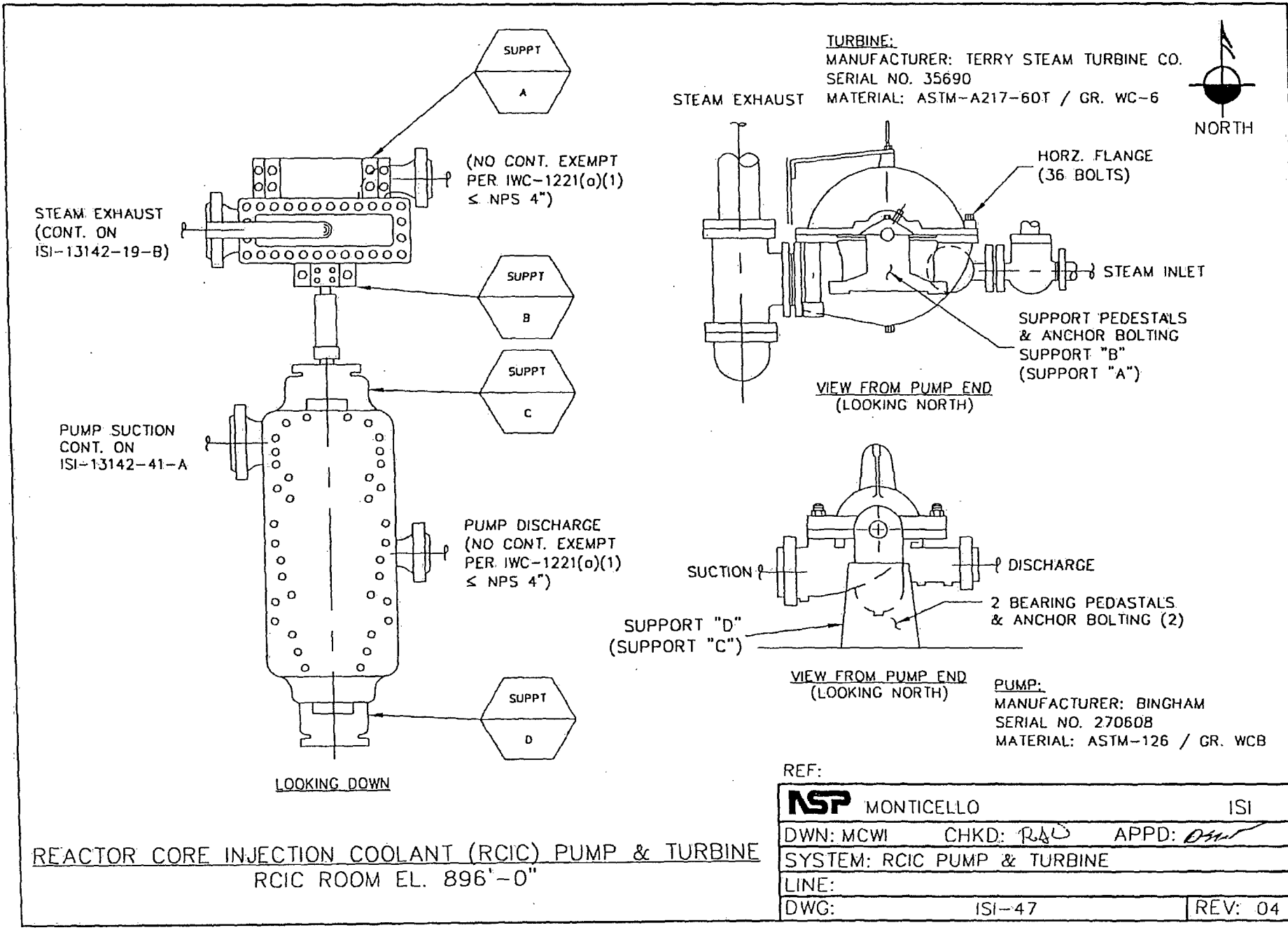
220°AZ

ISI
CONST. = WELD NO.

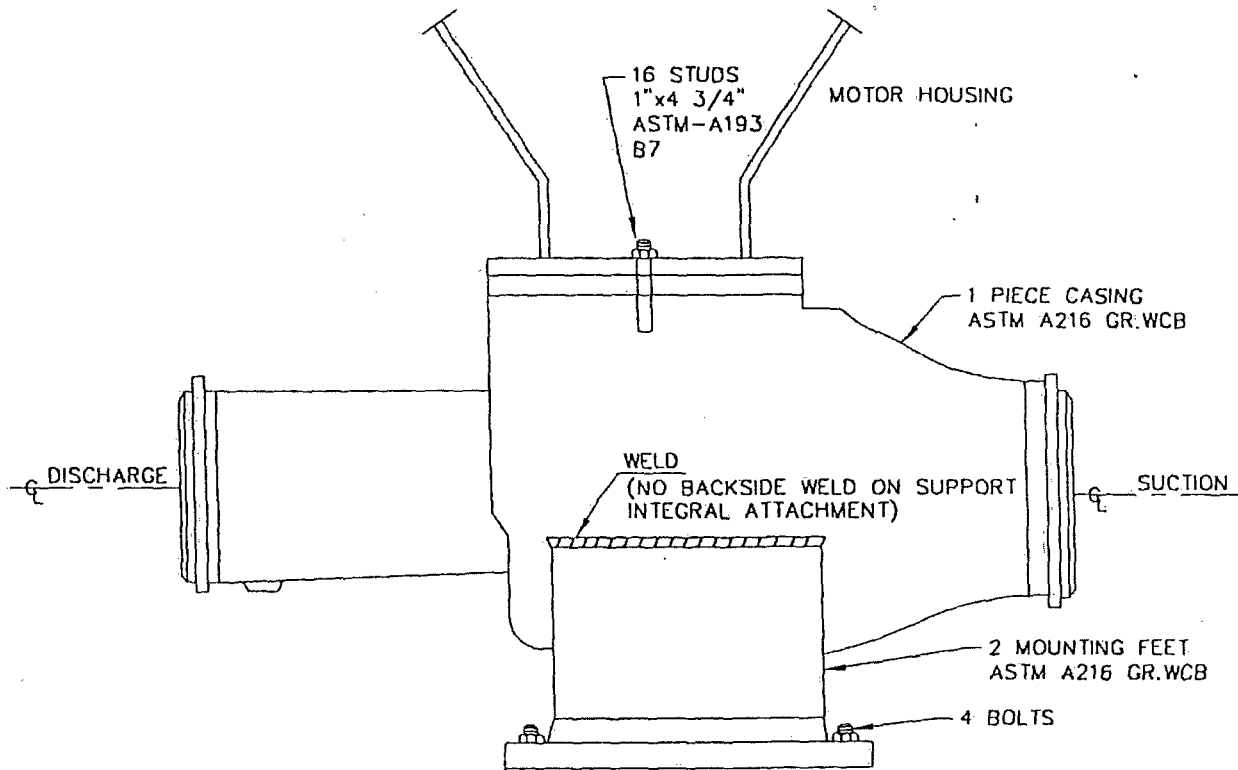
REF: NX-8290-62
N12A REF: NF-97010
N12B REF: NF-97009

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JP</i>	APPD: <i>MSJ</i>
SYSTEM: RX INSTRUMENT NOZZLES		
LINE: RLM3-1"-DCA & RLM4-1"-DCA		
DWG:	ISI-19	REV: 05

DM = DISSIMILAR METAL WELD



REACTOR CORE INJECTION COOLANT (RCIC) PUMP & TURBINE
RCIC ROOM EL. 896'-0"



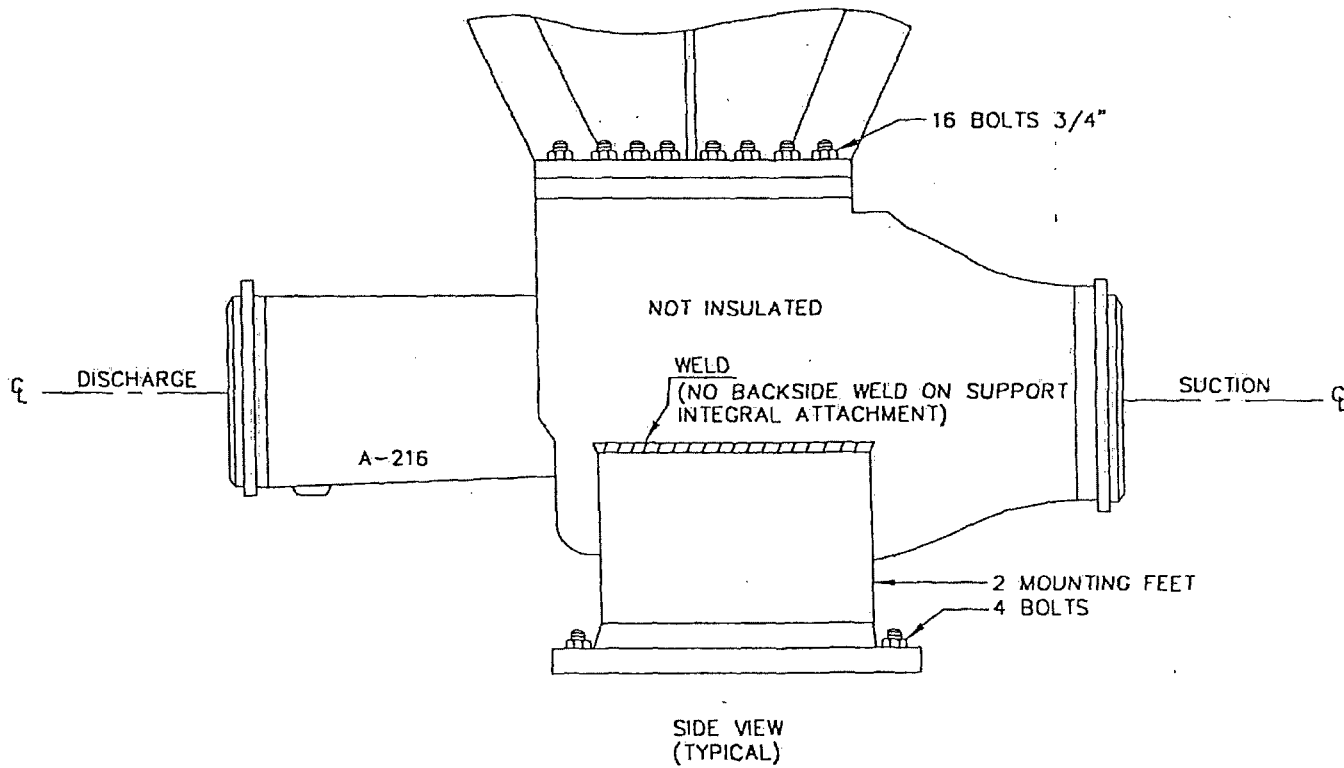
SIDE VIEW
(TYPICAL)

RHR PUMPS EL. 896'-0"

REF: NX-7905-18

SUPPORT NAME	PUMP NAME	LOCATION
SUPPORT "A"	P-202A	RHR "A" ROOM
SUPPORT "B"	P-202B	RHR "B" ROOM
SUPPORT "C"	P-202C	RHR "A" ROOM
SUPPORT "D"	P-202D	RHR "B" ROOM

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RJW</i>	APPD: <i>DW</i>
SYSTEM: RHR PUMPS		
LINE:		
DWG:	ISI-48	REV: 05



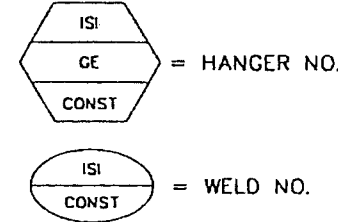
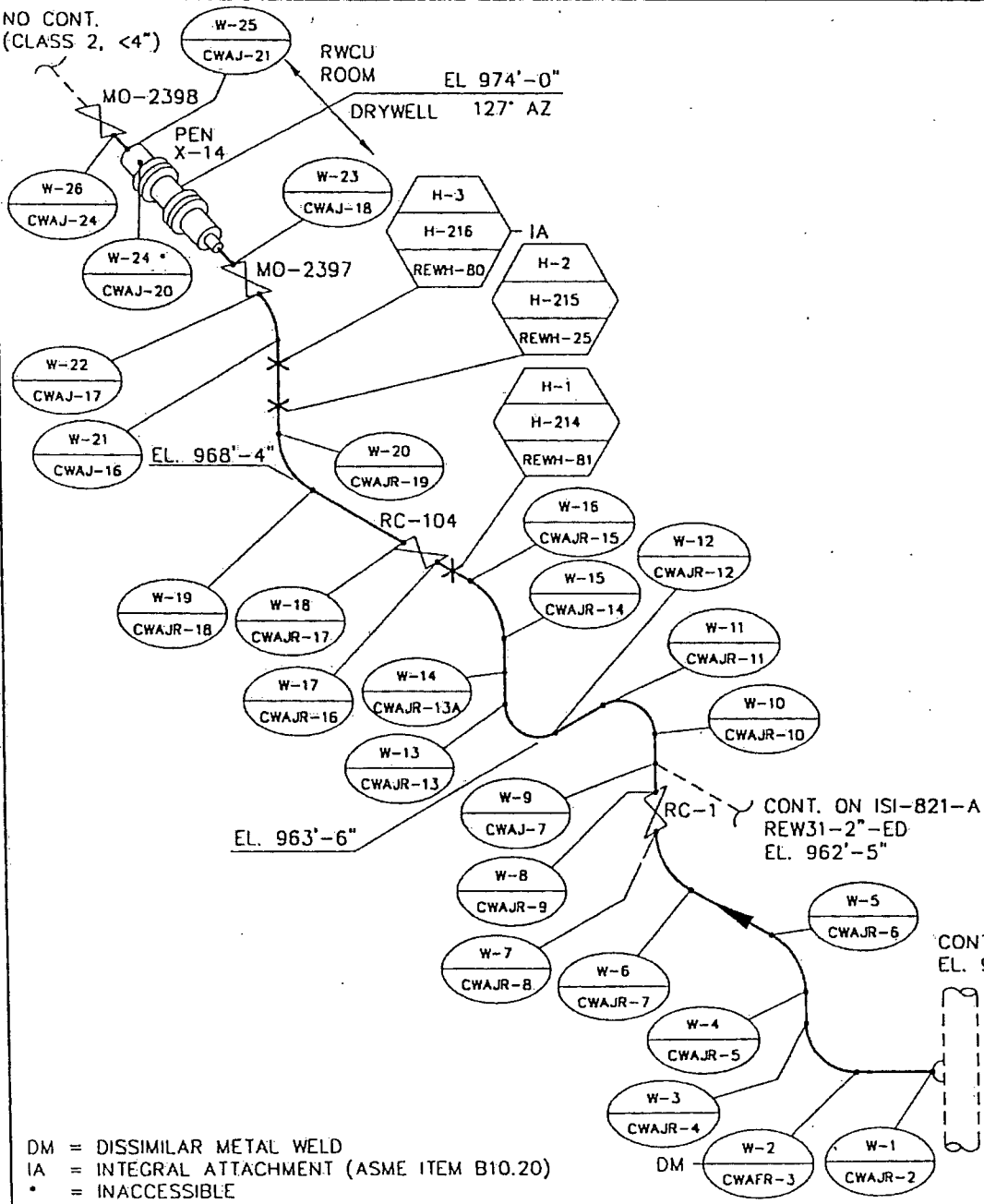
CORE SPRAY PUMPS EL. 896'-0"

REF: NX-7833-33

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>PAW</i>	APPD: <i>DAW</i>
SYSTEM: CORE SPRAY PUMP SUPPORTS		
LINE:		
DWG:	ISI-49	REV: 05

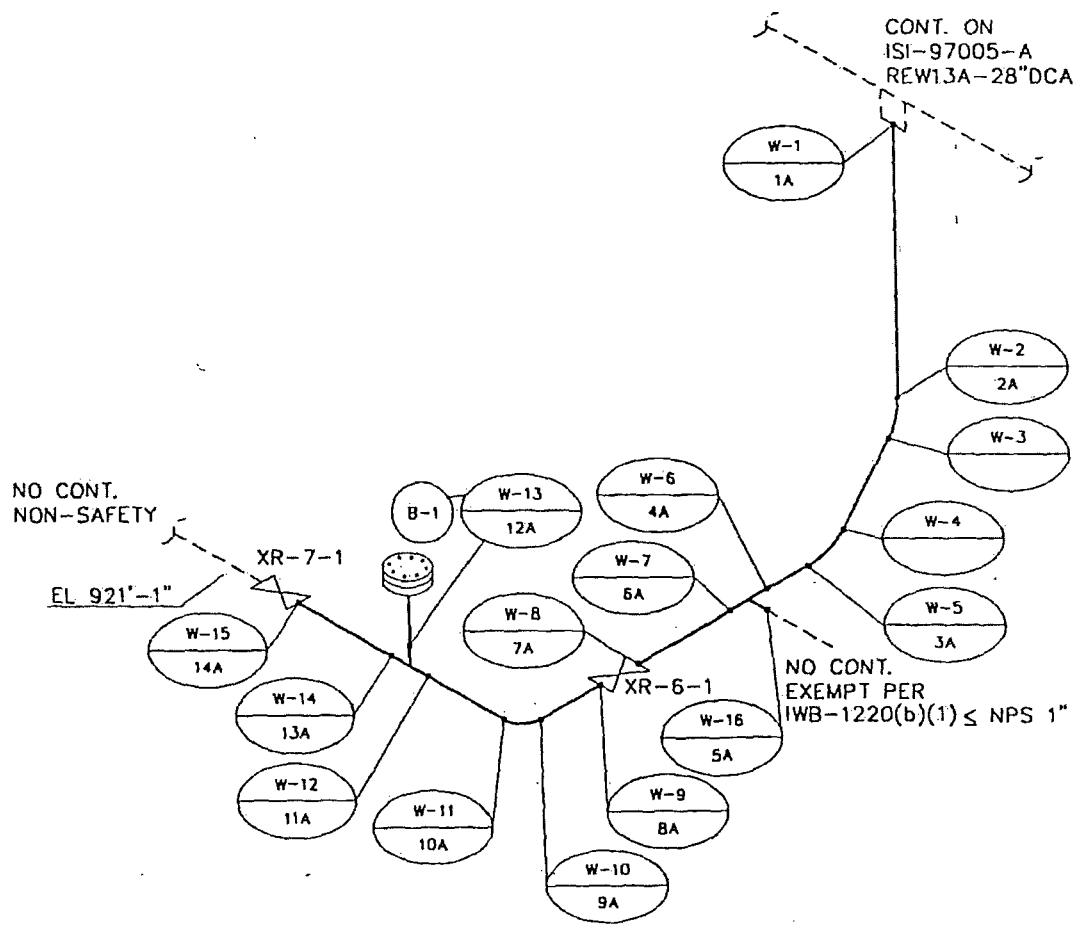
SUPPORT NAME	PUMP NAME	LOCATION	CONNECTS TO
SUPPORT "A"	P-208A	RHR "A" ROOM	NOZZLE N-5B
SUPPORT "B"	P-208B	RHR "B" ROOM	NOZZLE N-5A

NO CONT.
(CLASS 2, <4")



CONT. ON ISI-97006-A
 EL. 953'-11"
 NF-73880
 REF: NF-97006

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: R&D	APPD: <i>OSW</i>
SYSTEM: RWCU		
LINE: REW3-4"-ED/EDB/VCA		
DWG:	ISI-73880-A	REV: 04

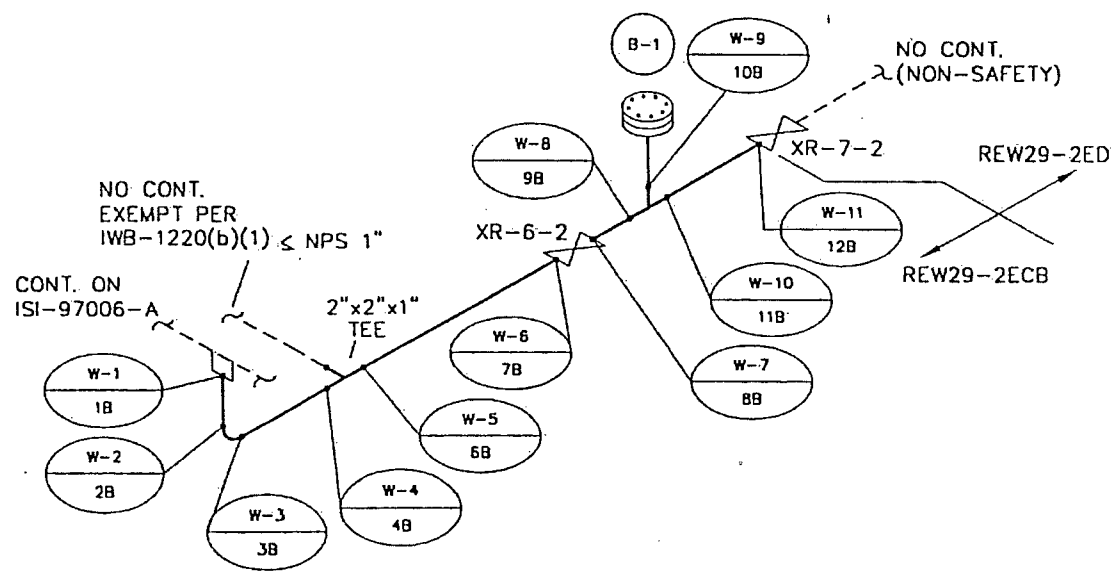


= WELD NO.
 = BOLT NO.

REF: NQ-74209-1

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RED</i>	APPD: <i>OW</i>
SYSTEM: RECIRC. "A" DRAIN		
LINE: REW28-2"-ECB		
DWG:	ISI-74209-1-A.	REV: 04

NOTE: LOCATED IN DRYWELL BELOW RECIRC PUMP P-200A SUCTION LINE



NO CONT.
EXEMPT PER
IWB-1220(b)(1) ≤ NPS 1"
CONT. ON
ISI-97006-A

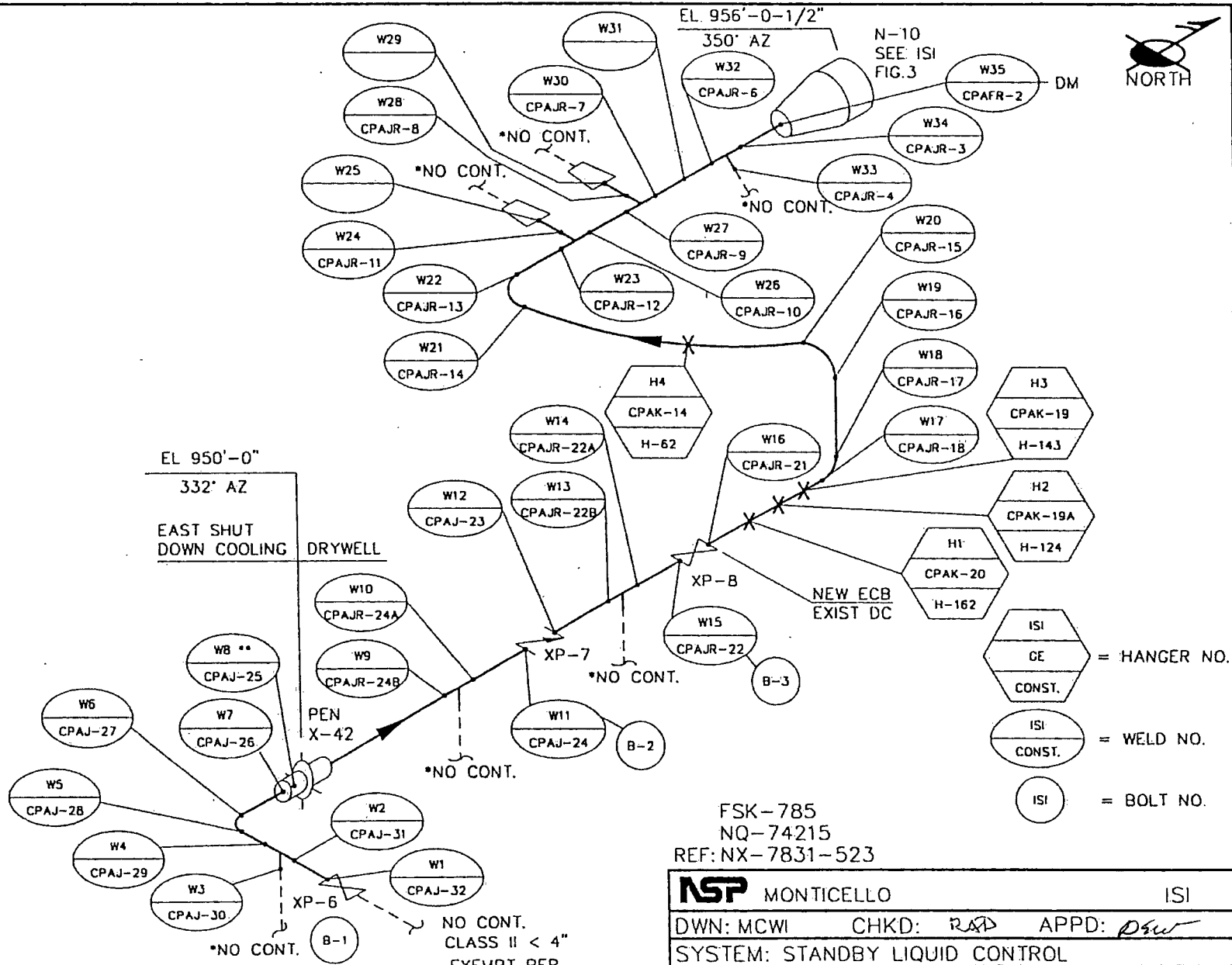
NO CONT.
λ (NON-SAFETY)

ISI
CONST. = WELD NO.
ISI = BOLT NO.

REF: NQ-74210-1

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>PSD</i>	APPD: <i>PSW</i>
SYSTEM: RECIRC. "B" DRAIN		
LINE: REW29-2"-ECB		
DWG:	ISI-74210-1-A	REV: 05

NOTE:
LOCATED IN DRYWELL BELOW RECIRC PUMP P-200B SUCTION LINE



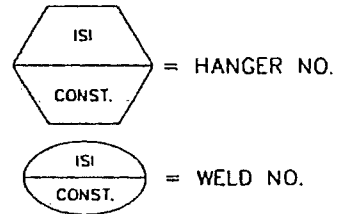
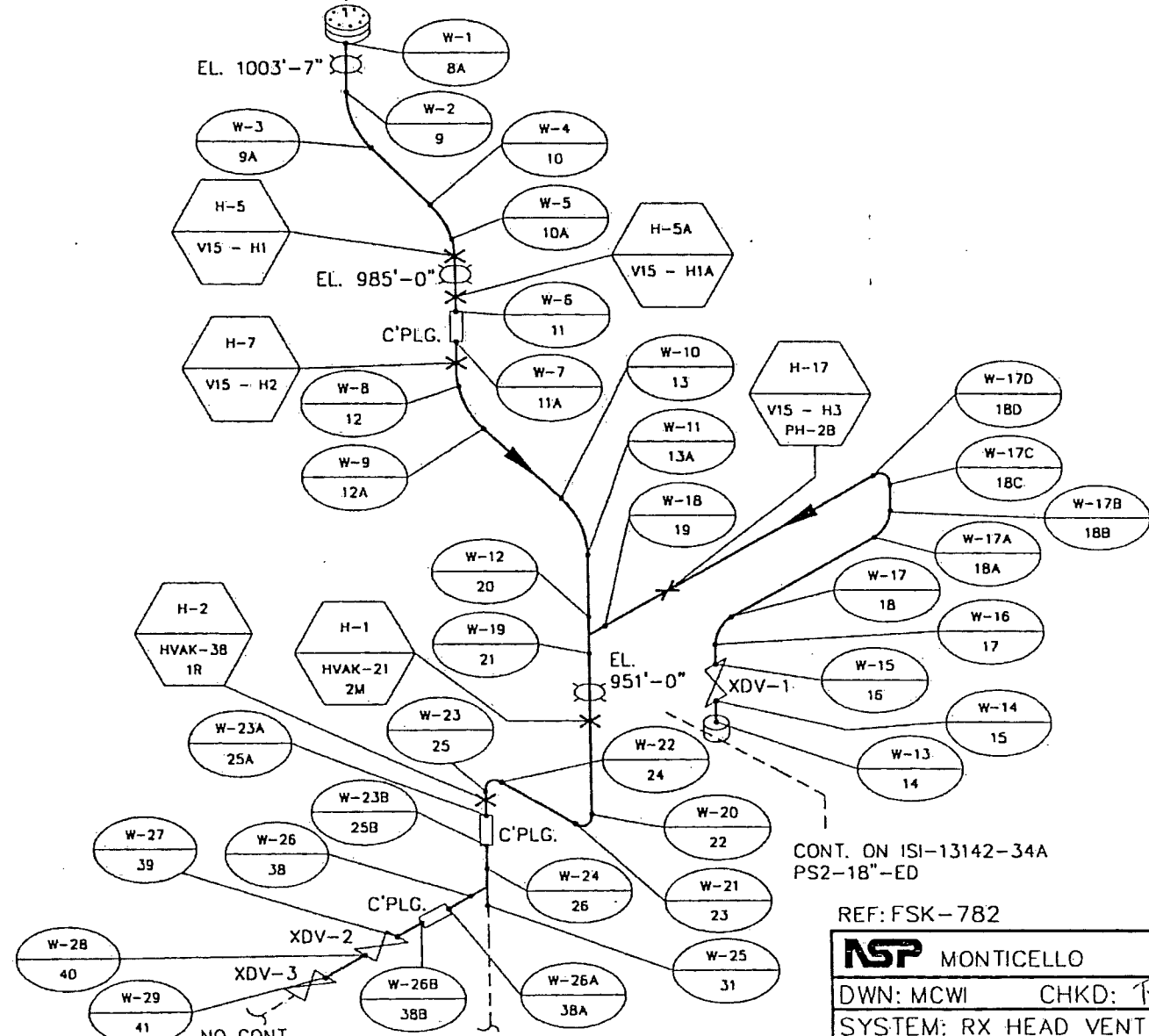
NOTE:
 * = EXEMPT PER IWB-1220(b)(1), NPS ≤ 1".
 ** = INACCESSIBLE
 DM = DISSIMILAR METAL WELD

NO CONT.
 CLASS II < 4"
 EXEMPT PER
 IWC-1222(a)

FSK-785
 NQ-74215
 REF: NX-7831-523

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RA</i>	APPD: <i>DW</i>
SYSTEM: STANDBY LIQUID CONTROL		
LINE: CH2-1.5"		
DWG:	ISI-74215-A	REV: 06

CONT. ON ISI-782A-A
EL. 1004'-7"

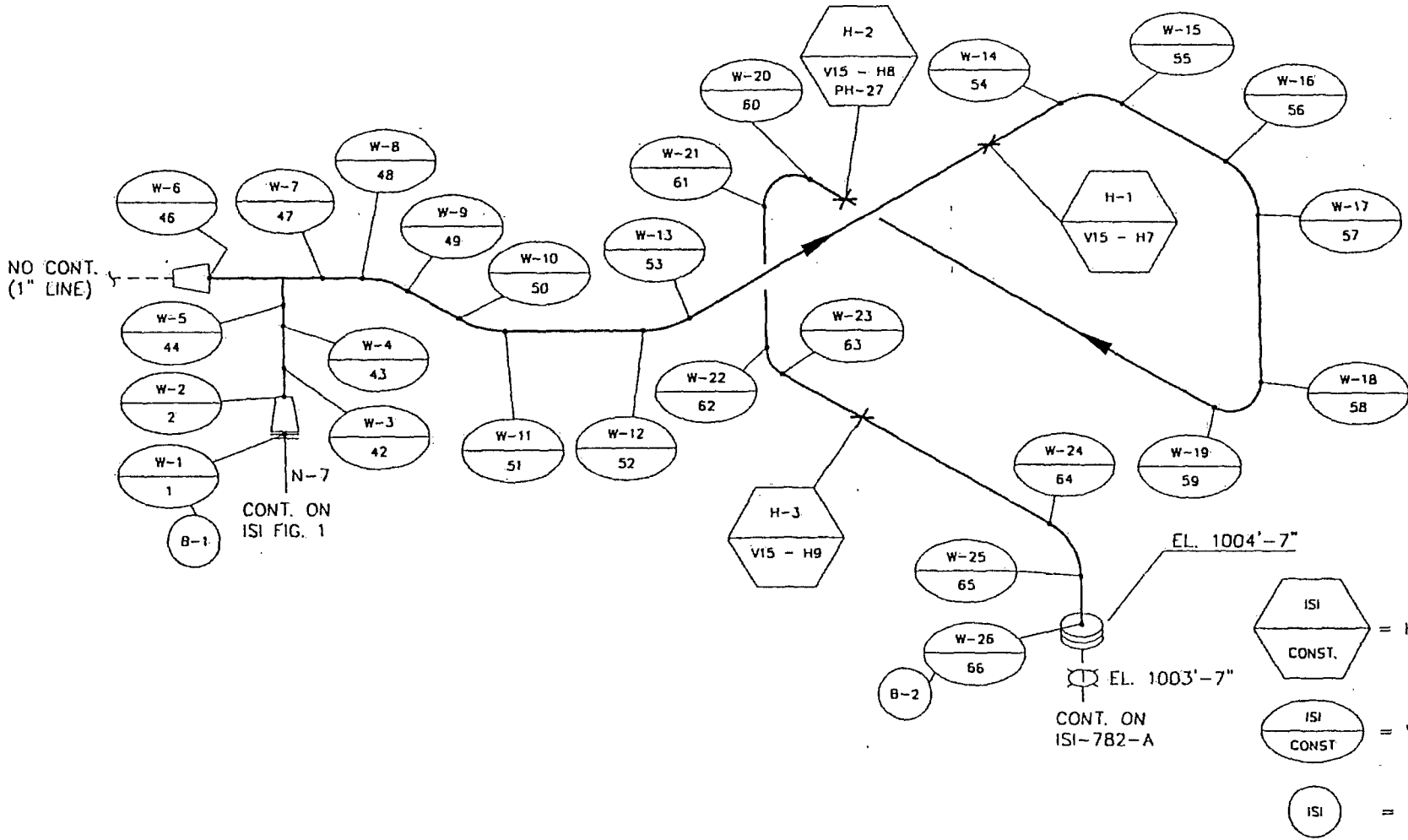


CONT. ON ISI-13142-34A
PS2-18"-ED

REF: FSK-782

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RSD</i>	APPD: <i>AW</i>
SYSTEM: RX HEAD VENT		
LINE: V15-2"-ED		
DWG: ISI-782-A	REV: 03	

NOTE: LOCATED IN DRYWELL EL. 938'-9"
NO CONT. (CLASS II)
NO CONT. (1" LINE)



NO CONT.
(1" LINE)

CONT. ON
ISI FIG. 1

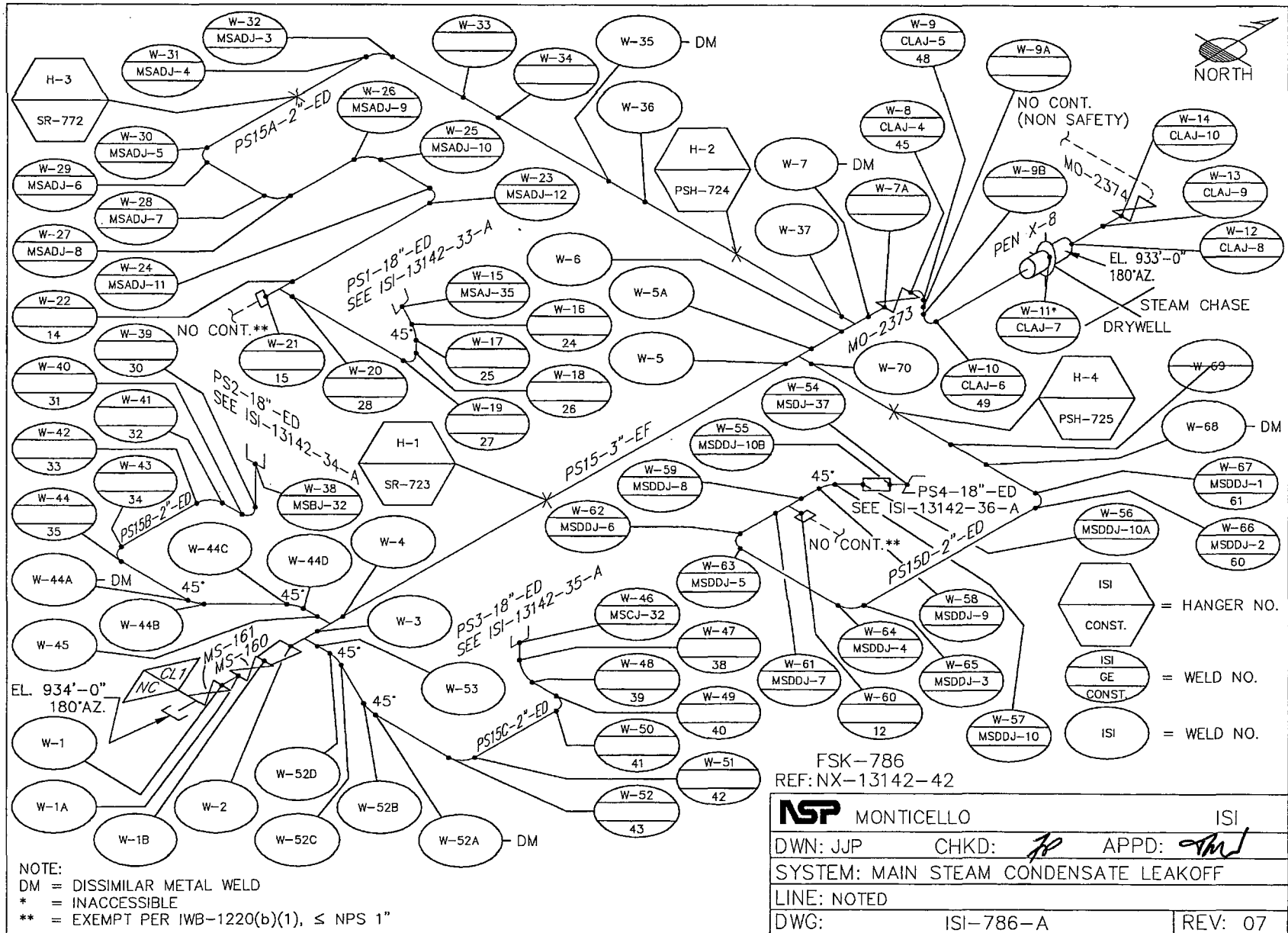
EL. 1003'-7"
CONT. ON
ISI-782-A

- = HANGER NO.
- = WELD NO.
- = BOLT NO.

REF: FSK-782A

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAJ</i>	APPD: <i>OSW</i>
SYSTEM: RX HEAD VENT		
LINE: V15-2"-ED		
DWG: ISI-782-A-A	REV: 04	

NOTE:
LOCATED ON REFUEL FLOOR DURING REFUELING OUTAGE

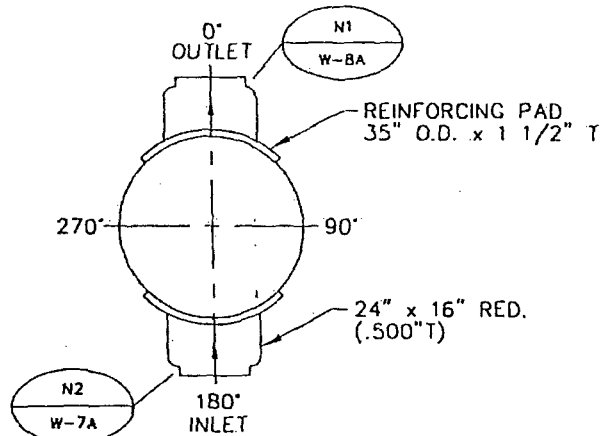
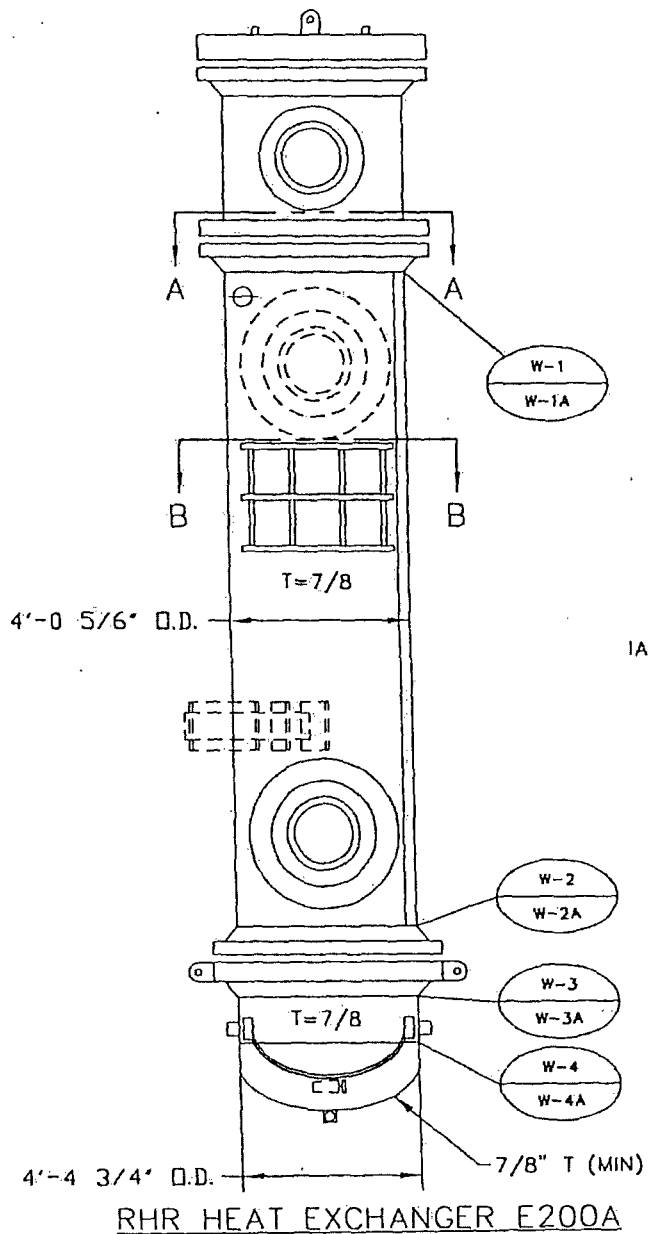


NOTE:
 DM = DISSIMILAR METAL WELD
 * = INACCESSIBLE
 ** = EXEMPT PER IWB-1220(b)(1), ≤ NPS 1"

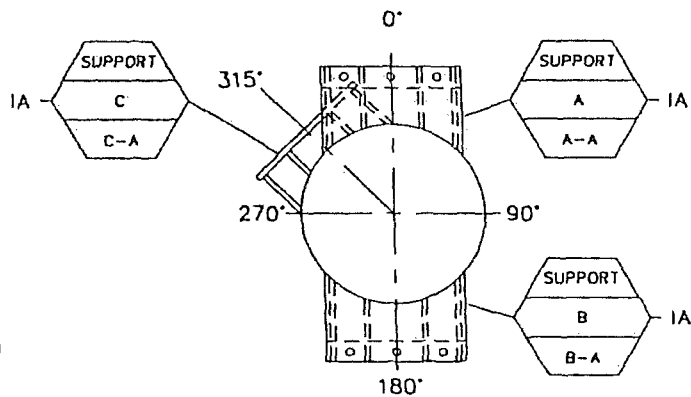
FSK-786
 REF: NX-13142-42

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JP</i>	APPD: <i>AMJ</i>
SYSTEM: MAIN STEAM CONDENSATE LEAKOFF		
LINE: NOTED		
DWG:	ISI-786-A	REV: 07

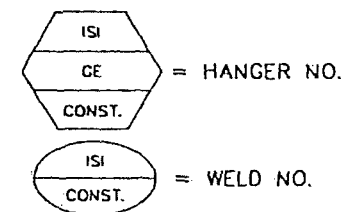
ISI = HANGER NO.
 CONST.
 ISI = WELD NO.
 GE CONST.
 ISI = WELD NO.



SECTION A-A



SECTION B-B

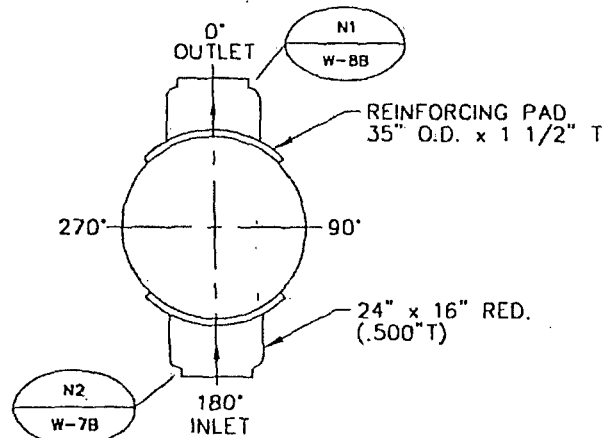
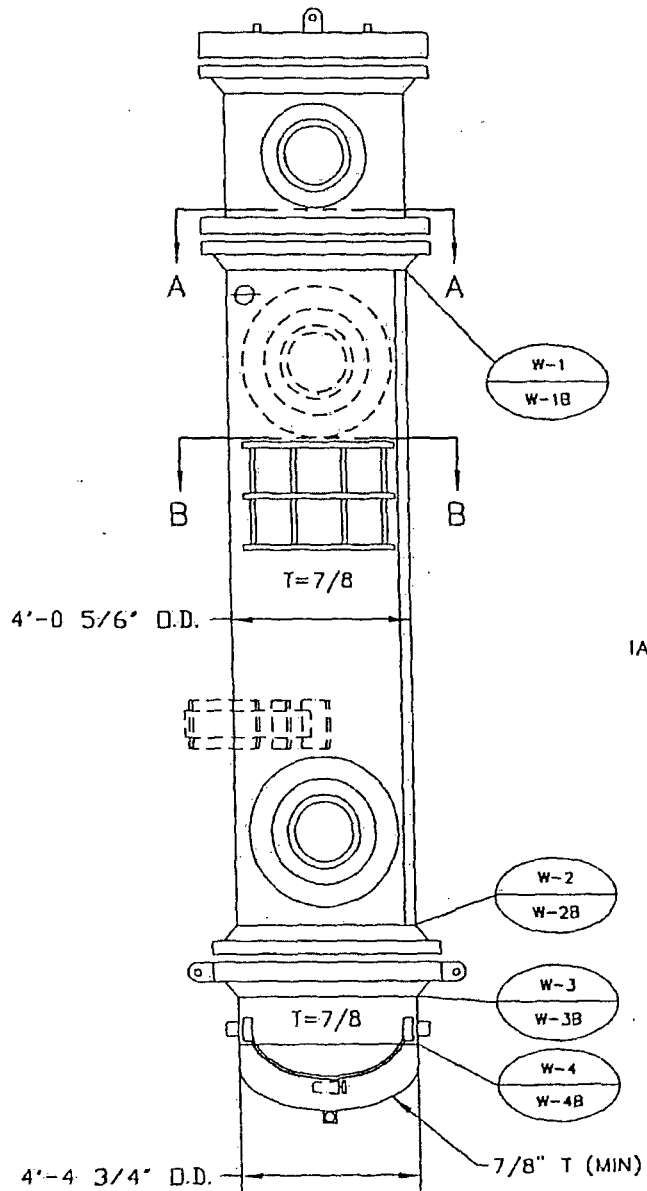


REF: NX-7905-32

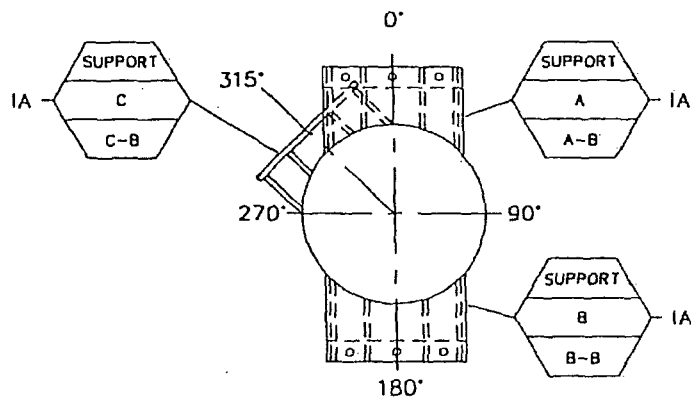
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAM</i>	APPD: <i>DGW</i>
SYSTEM: RHR HX "A"		
LINE:		
DWG: ISI-7905-32-A	REV: 04	

IA = INTEGRAL ATTACHMENT (ASME ITEM C3.10)

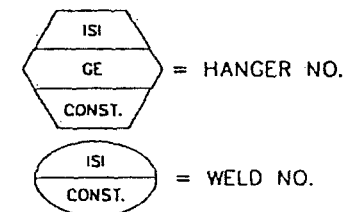
RHR HEAT EXCHANGER E200A



SECTION A-A



SECTION B-B

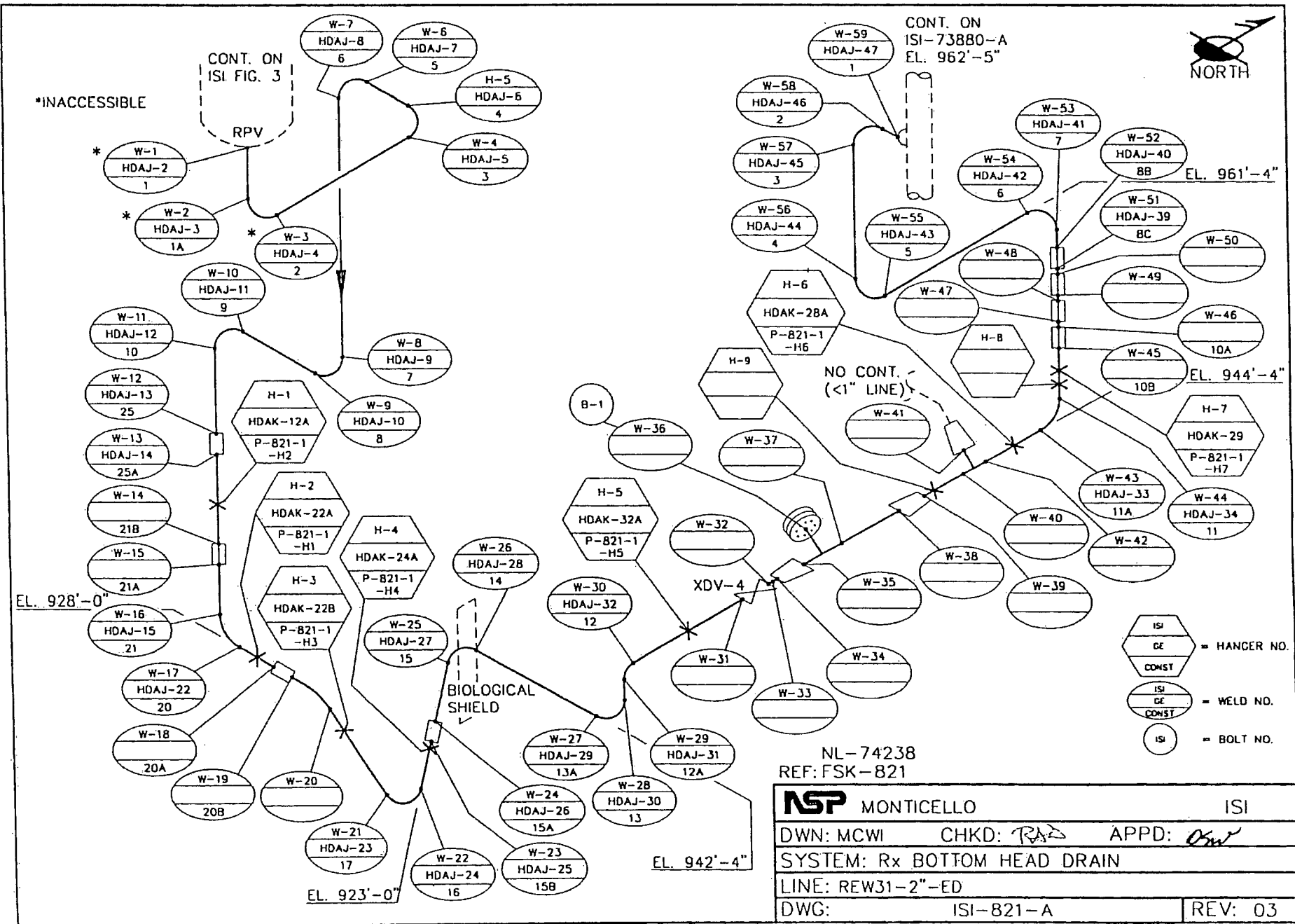


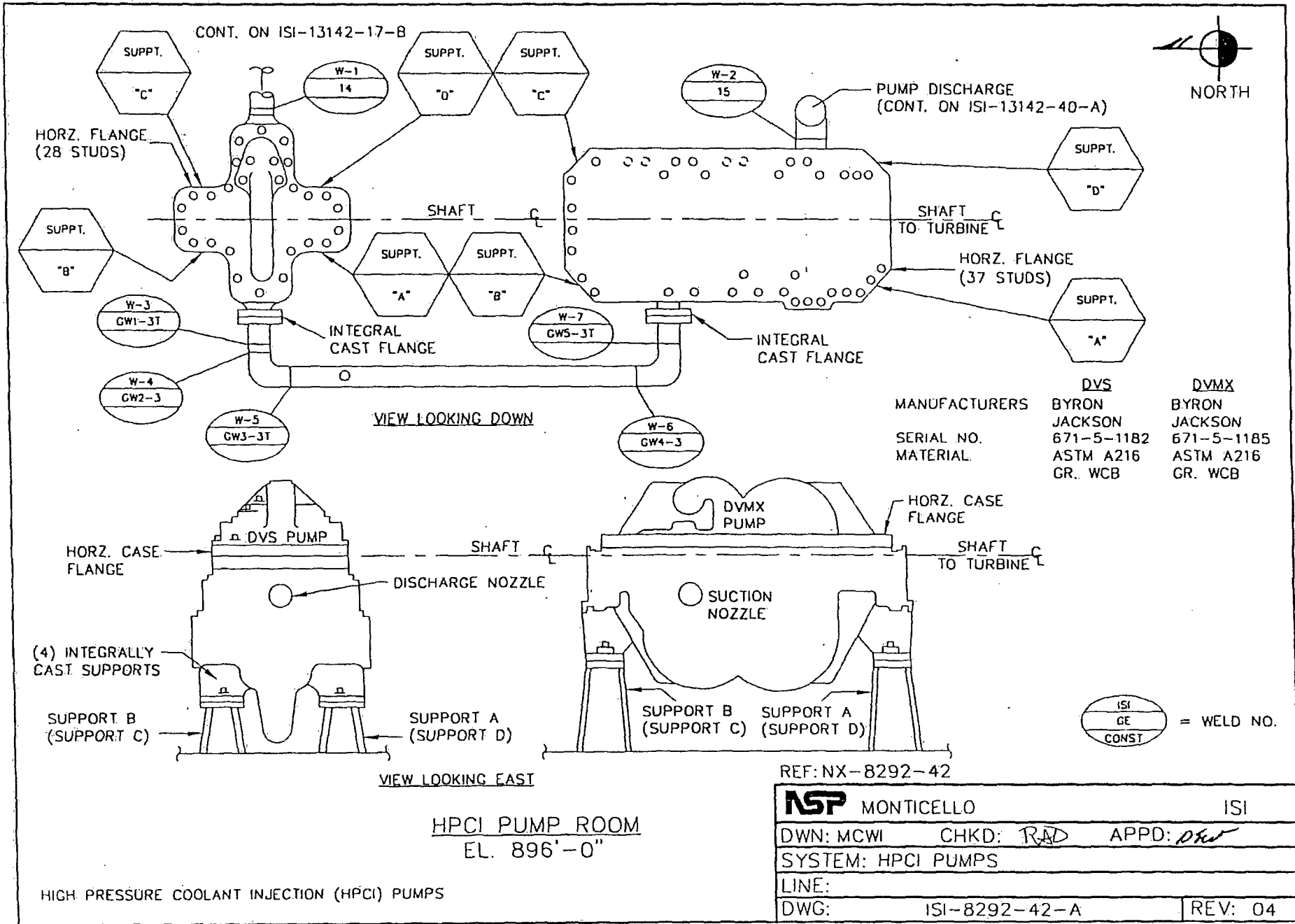
RHR HEAT EXCHANGER E200B

IA = INTEGRAL ATTACHMENT (ASME ITEM C3.10)

REF: NX-7905-32

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAO</i>	APPD: <i>DSW</i>
SYSTEM: RHR HX "B"		
LINE:		
DWG:	ISI-7905-32-B	REV: 04





CONT. ON ISI-13142-17-B



PUMP DISCHARGE
(CONT. ON ISI-13142-40-A)

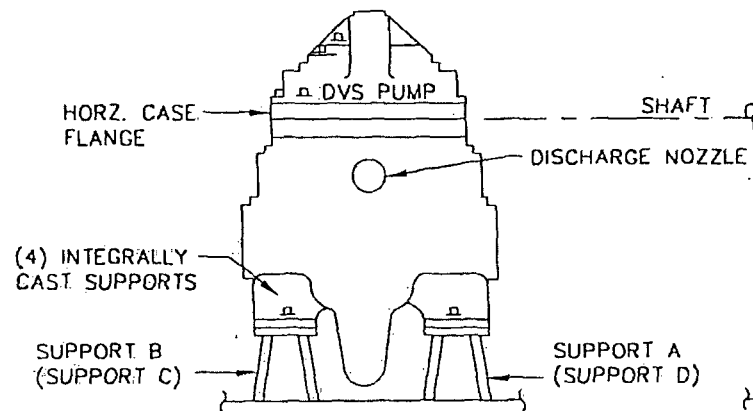
HORZ. FLANGE
(28 STUDS)

SHAFT
TO TURBINE

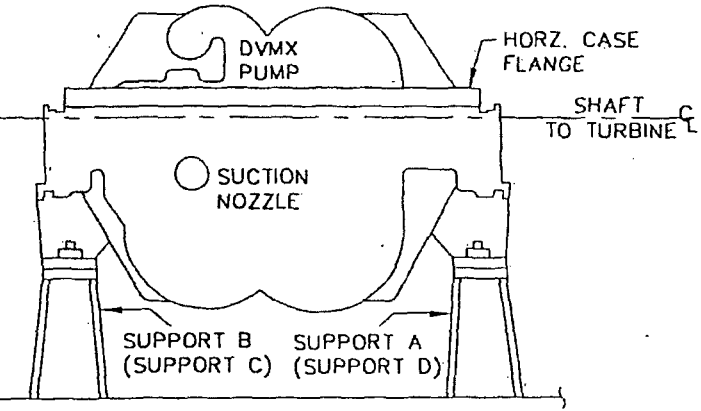
HORZ. FLANGE
(37 STUDS)

VIEW LOOKING DOWN

	DVS	DVMX
MANUFACTURERS	BYRON JACKSON	BYRON JACKSON
SERIAL NO.	671-5-1182	671-5-1185
MATERIAL.	ASTM A216	ASTM A216
	GR. WCB	GR. WCB



VIEW LOOKING EAST



REF: NX-8292-42

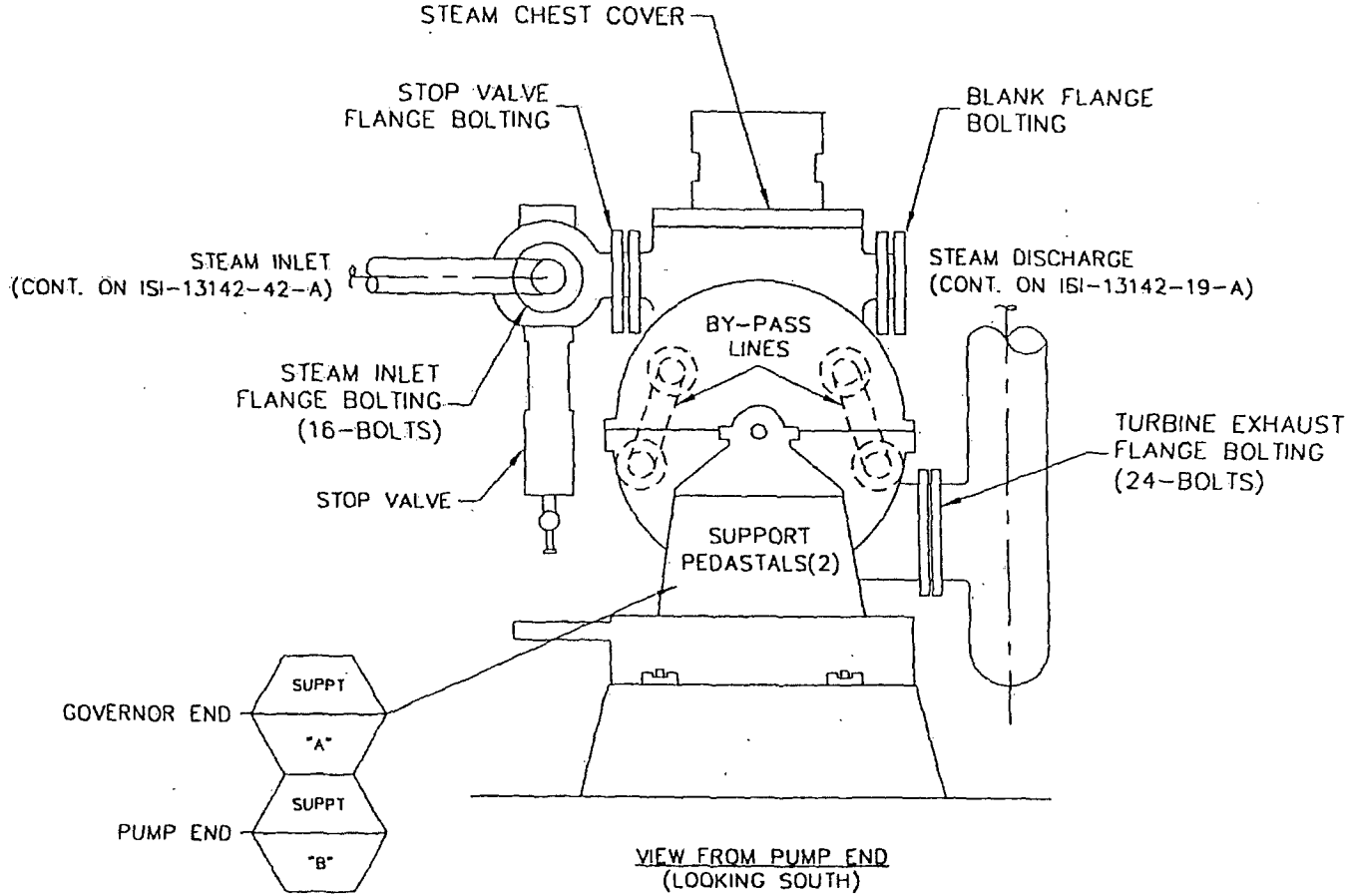
ISI
GE
CONST = WELD NO.

HPCI PUMP ROOM
EL. 896'-0"

HIGH PRESSURE COOLANT INJECTION (HPCI) PUMPS

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: DW
SYSTEM: HPCI PUMPS		
LINE:		
DWG:	ISI-8292-42-A	REV: 04

MANUFACTURER: TERRY STEAM TURBINE CO.
 SERIAL NO. 35932

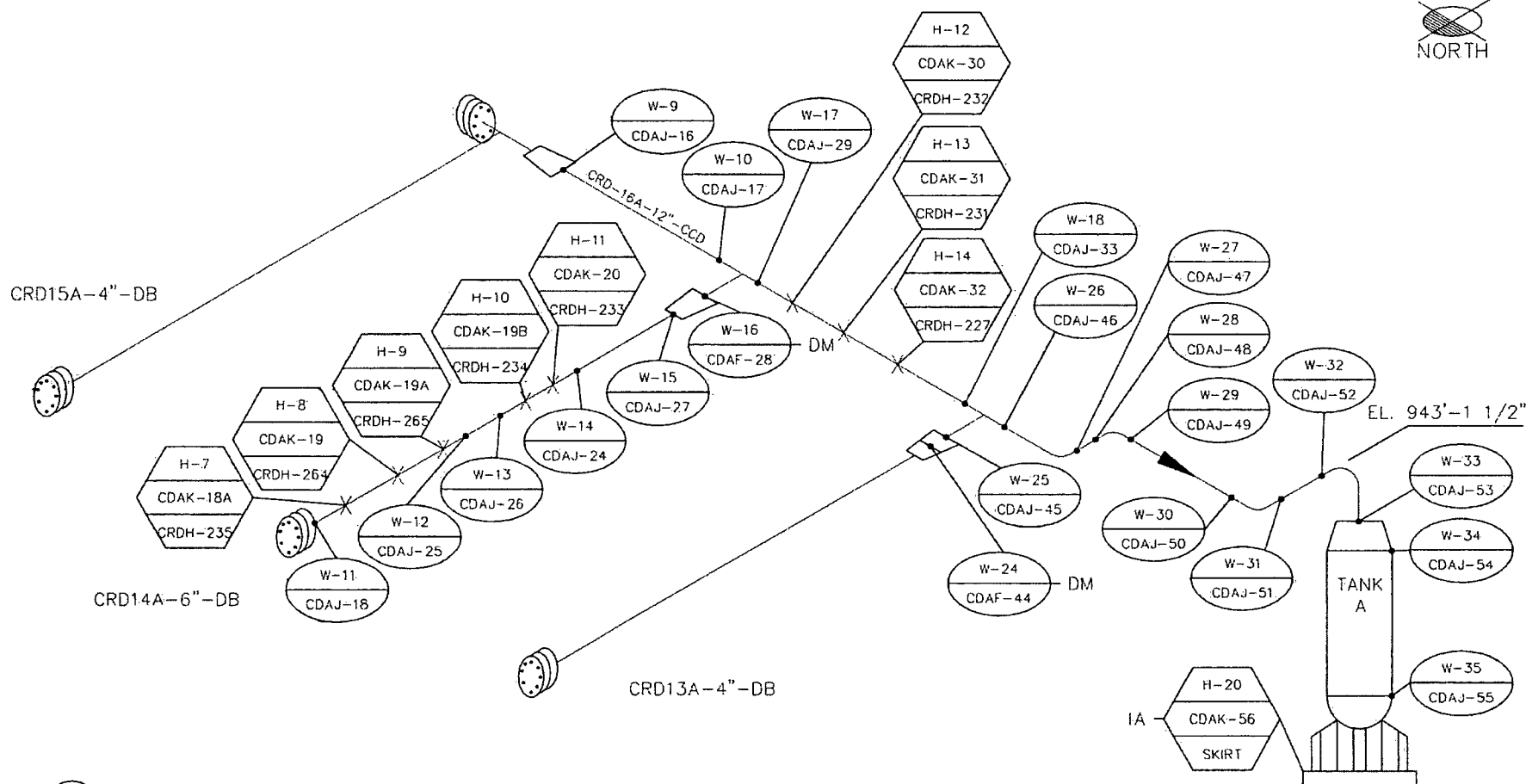



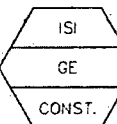
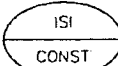
VIEW FROM PUMP END
 (LOOKING SOUTH)

HIGH PRESSURE COOLANT INJECTION (HPCI) TURBINE
 HPCI ROOM EL. 896'-0"

NX-8292-54
 REF: NX-8292-48

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: <i>[Signature]</i>
SYSTEM: HPCI TURBINE		
LINE:		
DWG:	ISI-8292-48-A	REV: 00



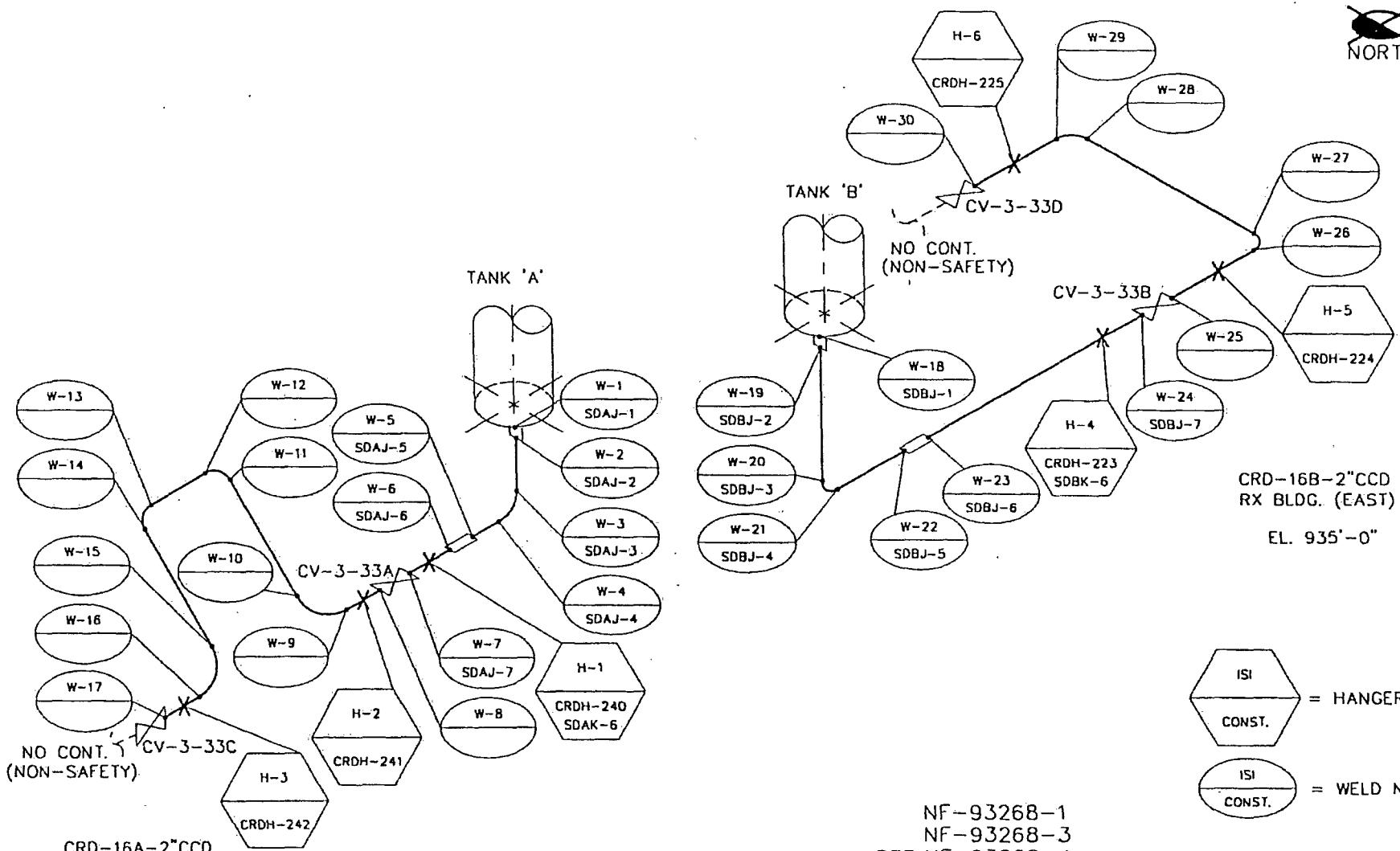
-  = BOLT NO.
-  = HANGER NO.
-  = WELD NO.

NOTE: LOCATED ON WEST SIDE OF Rx BLDG AT 935' ELEVATION

DM = DISSIMILAR METAL WELD
 IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

NF-93268-1
 NF-93268-4
 REF: NX-13142-77

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>gmu</i>	APPD: <i>RAD</i>
SYSTEM: CRD SCRAM HEADER "A"		
LINE: NOTED		
DWG:	ISI-93268-1-A	REV: 05

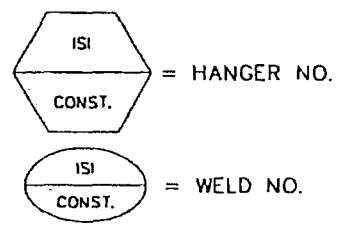


NO CONT. (NON-SAFETY) CV-3-33C

CRD-16A-2" CCD
RX BLDG. (WEST)
EL. 935'-0"

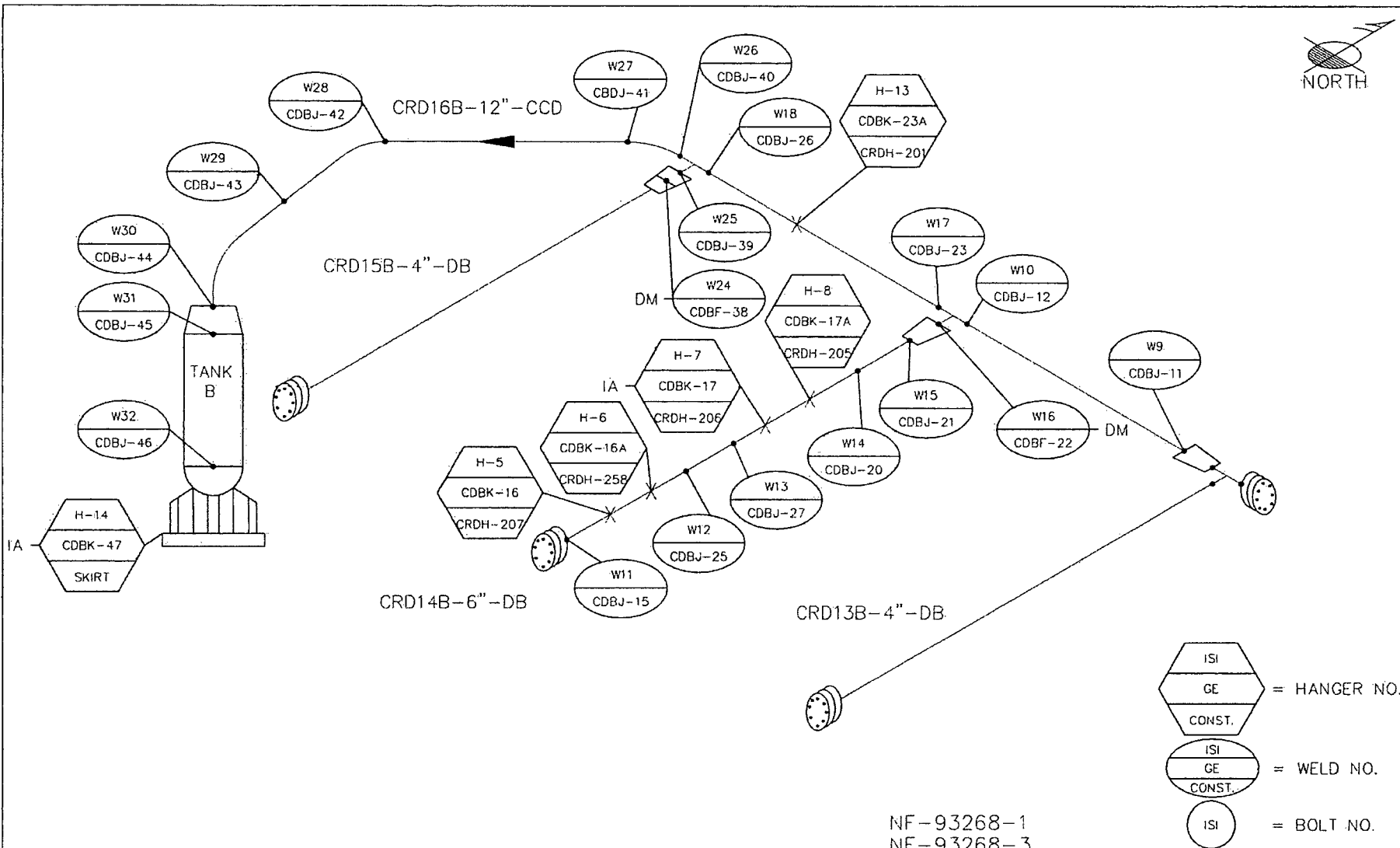
NO CONT. (NON-SAFETY)

CRD-16B-2" CCD
RX BLDG. (EAST)
EL. 935'-0"



NF-93268-1
NF-93268-3
REF: NF-93268-4

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: <i>DW</i>
SYSTEM: CRD SCRAM HEADER DISCHARGE		
LINE: CRD-16A-2" CCD & CRD-16B-2" CCD		
DWG: ISI-93268-1-B	REV: 03	

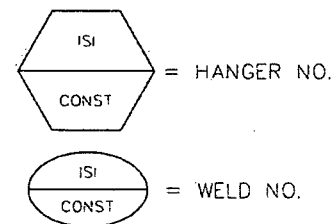
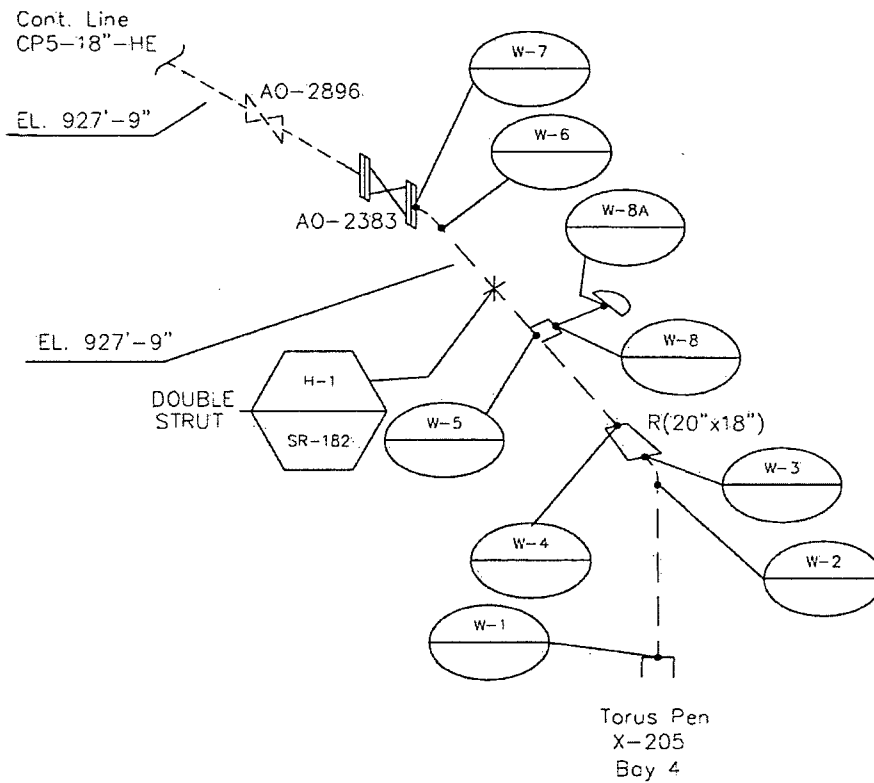


NF-93268-1
 NF-93268-3
 REF: NX-13142-77

NOTE: LOCATED ON EAST SIDE OF Rx BLDG @ 935' ELEVATION

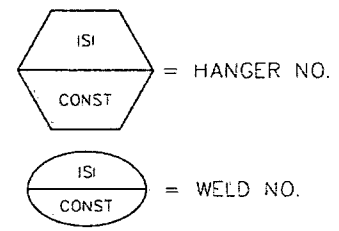
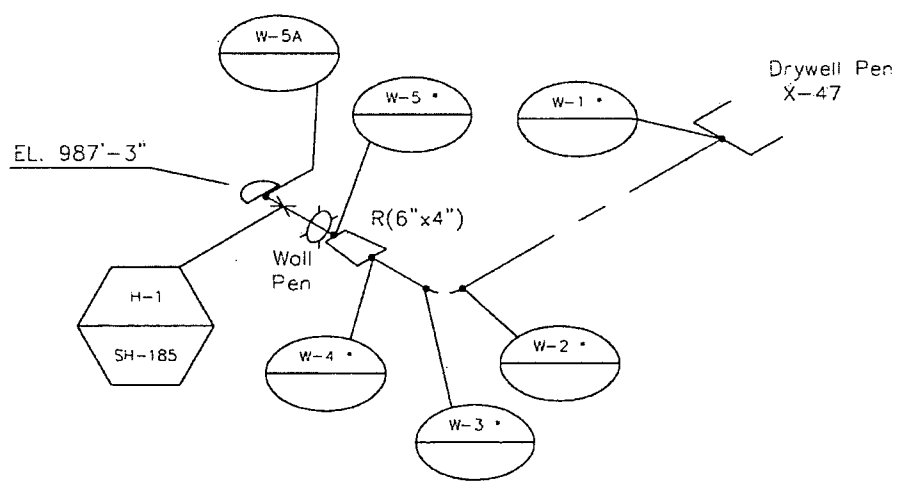
DM = DISSIMILAR METAL WELD
 IA = INTEGRAL ATTACHMENT (ASME ITEM C3.20)

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>gmj</i>	APPD: <i>RSD</i>
SYSTEM: CRD SCRAM HEADER "B"		
LINE: NOTED		
DWG:	ISI-93268-3-A	REV: 06



NH-36258
NH-94878
REF: NH-94699

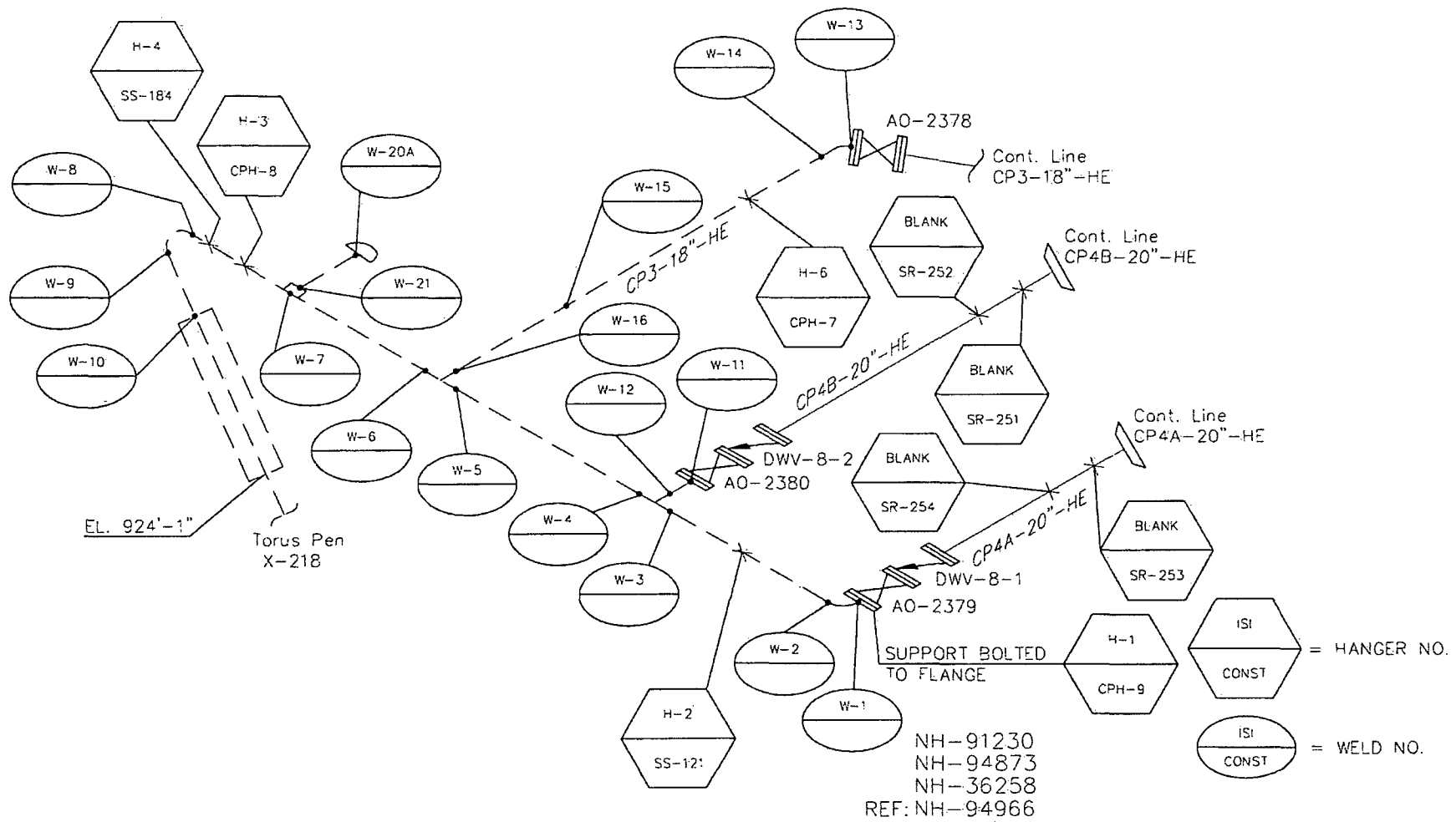
NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>gmj</i>	APPD: <i>RAD</i>
SYSTEM: PRI. CONT. & ATMOS. CONTROL		
LINE: CP5-18"-HE		
DWG:	ISI-94699-A	REV: 03



NH-91230
 NH-36258
 REF: NH-94879

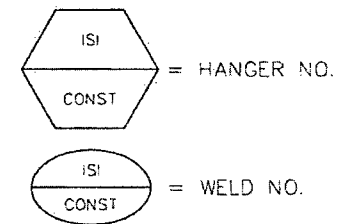
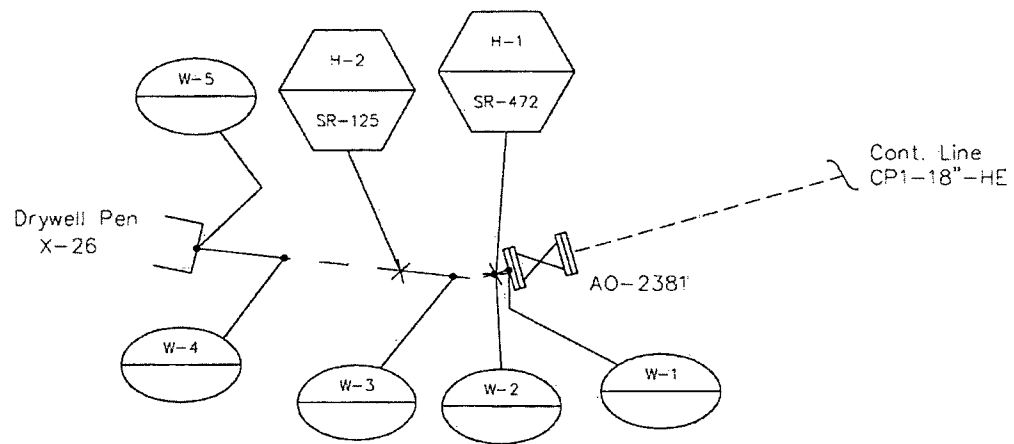
NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>CSM</i>	APPD: <i>RAD</i>
SYSTEM: SPARE PENETRATION X-47		
LINE: CGC1-6"-CB		
DWG:	ISI-94879-A	REV: 03

* = INACCESSIBLE



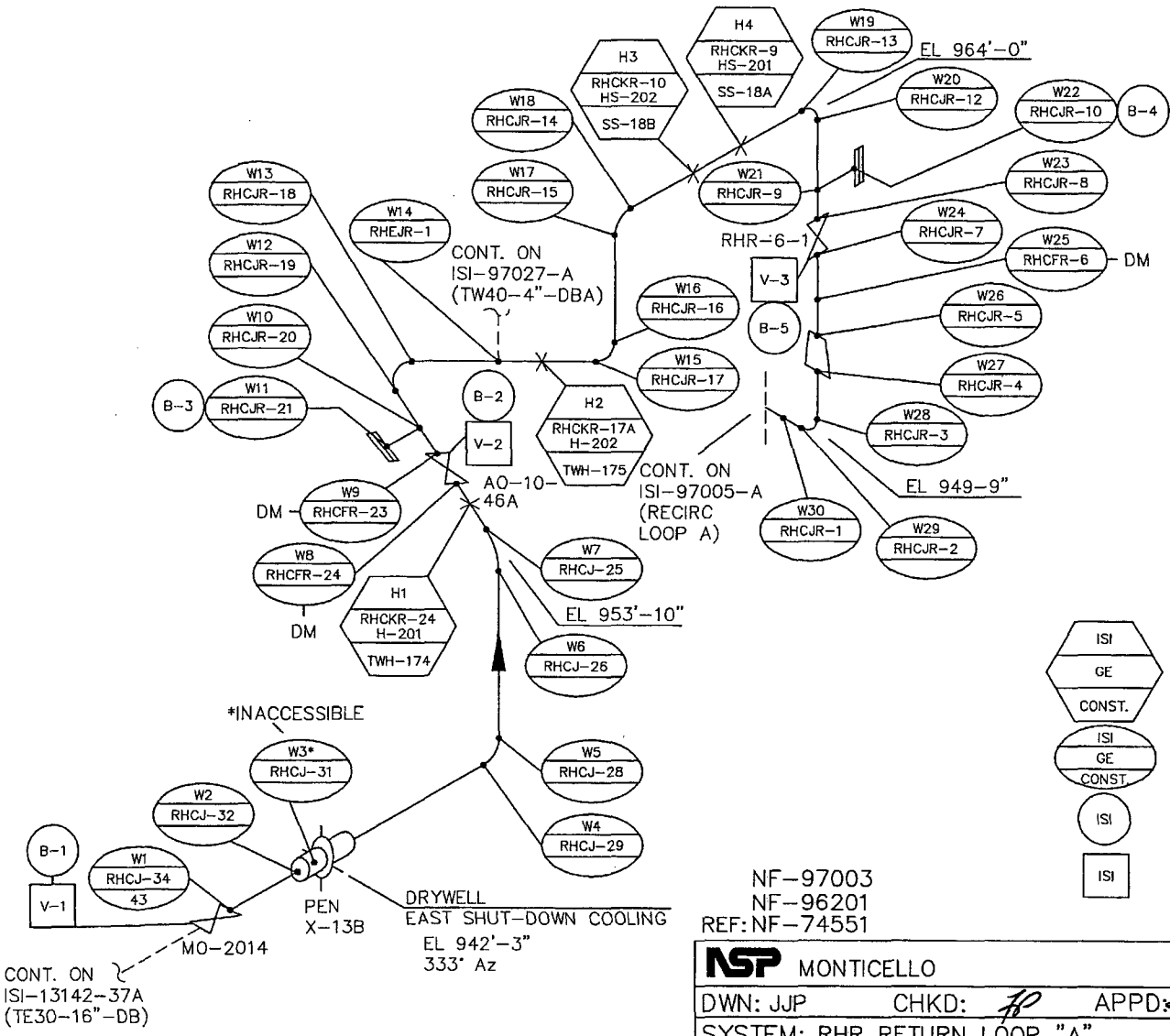
NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>[Signature]</i>	APPD: <i>RAJ</i>
SYSTEM: PRI. CONT. & ATMOS. CONTROL		
LINE: CP4-20"-HE & CP3-18"-HE		
DWG:	ISI-94966-A	REV: 03

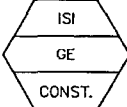



NOTE:
 LOCATED ABOVE TORUS BAYS 12 & 13 (ABOVE INBOARD HANDRAIL OF CATWALK)



NH-36258
REF: NH-94966

NSP MONTICELLO	ISI
DWN: BLL	CHKD: <i>amj</i> APPD: <i>RAO</i>
SYSTEM: CONTAINMENT AIR PURGE	
LINE: CP1-18"-HE	
DWG: ISI-94966-B	REV: 03



-  = HANGER NO.
-  = WELD NO.
-  = BOLT NO.
-  = VALVE NO.

NF-97003
 NF-96201
 REF: NF-74551

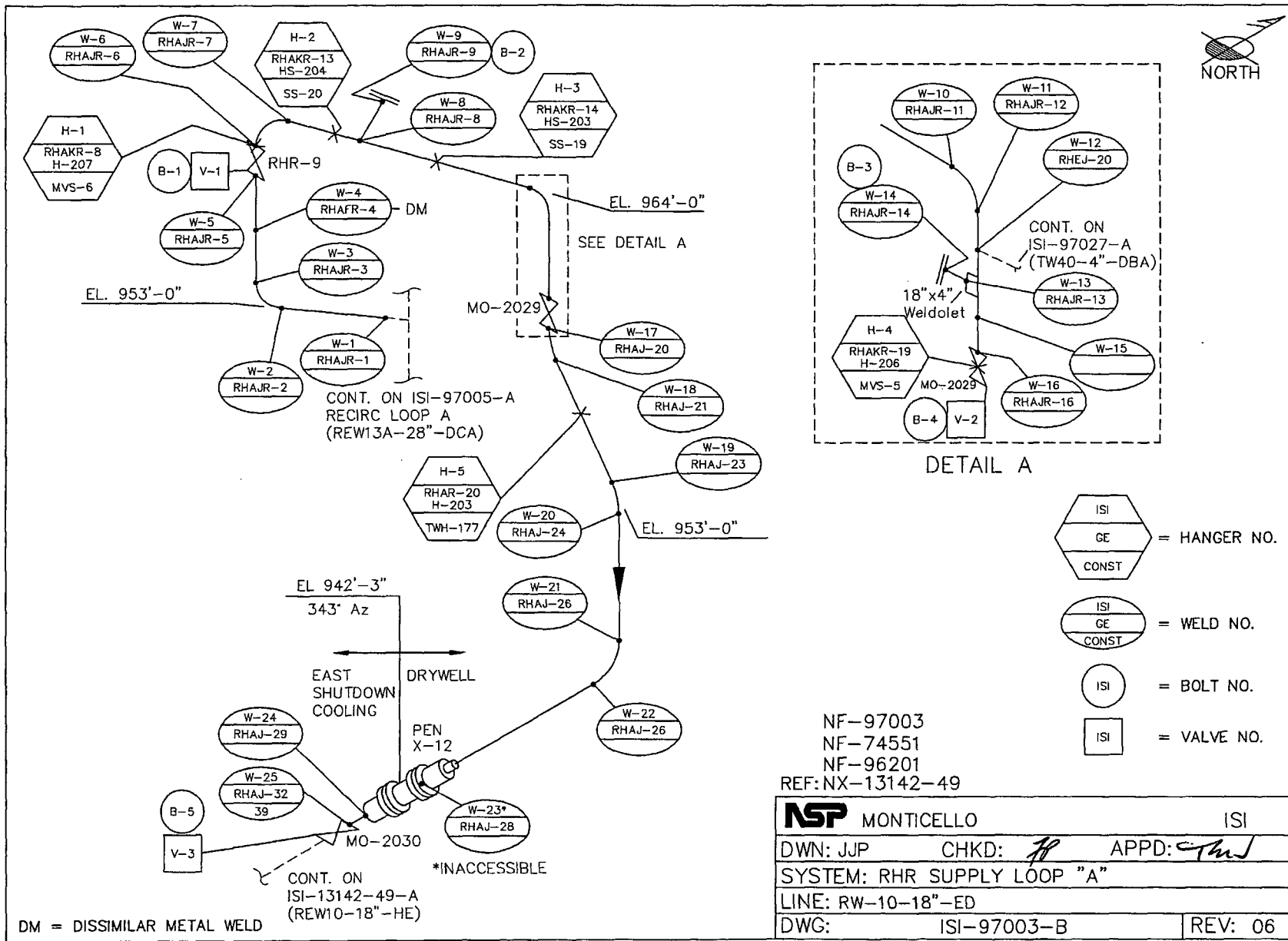
NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JP</i>	APPD: <i>[Signature]</i>
SYSTEM: RHR RETURN LOOP "A"		
LINE: TW30"-16-DB & DLA & DCA		
DWG:	ISI-97003-A	REV: 05

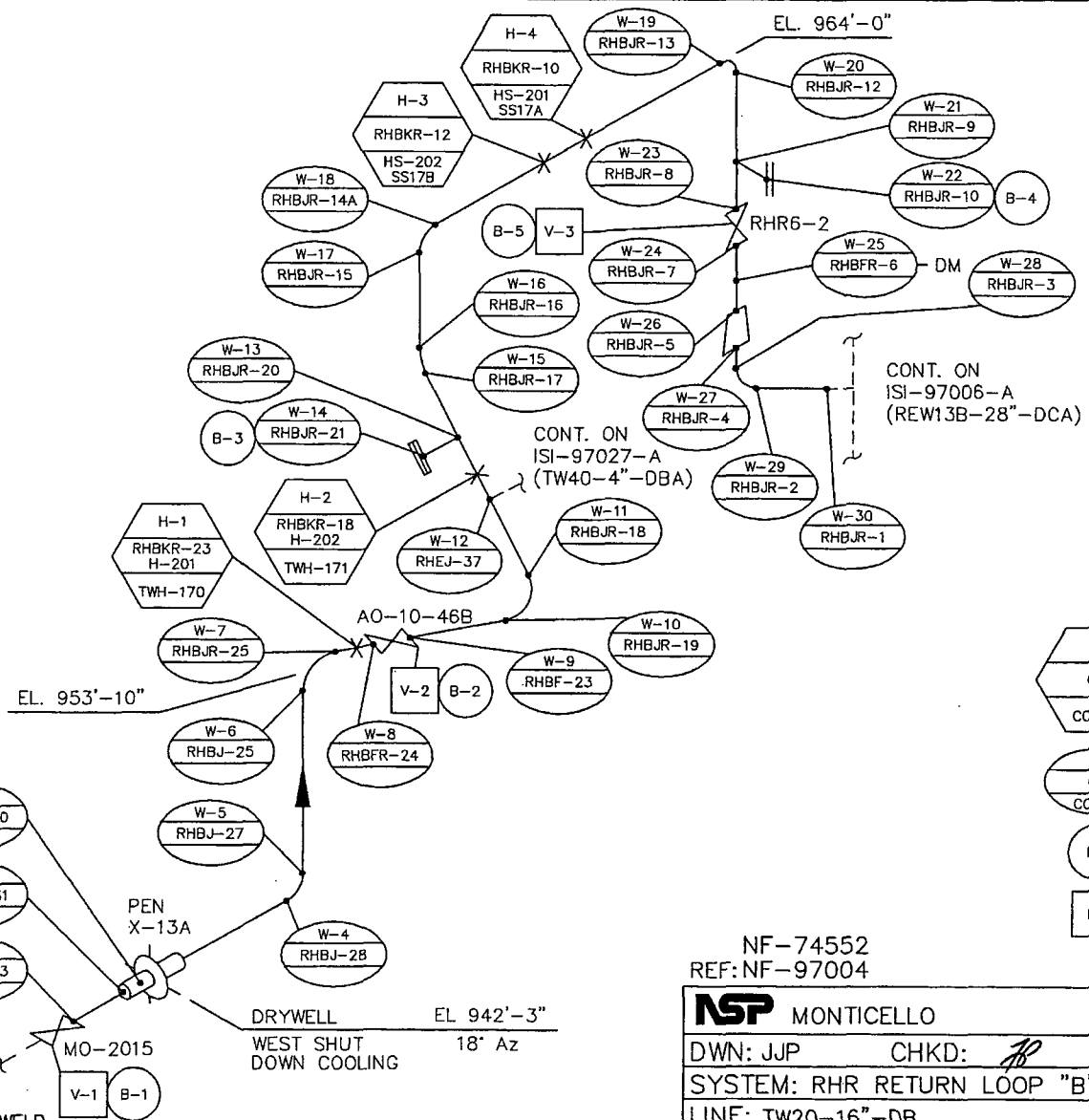
DM = DISSIMILAR METAL WELD

CONT. ON
 ISI-13142-37A
 (TE30-16"-DB)

*INACCESSIBLE

DRYWELL
 EAST SHUT-DOWN COOLING
 EL 942'-3"
 333' Az

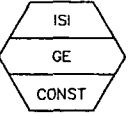
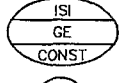






CONT. ON
ISI-97006-A
(REW13B-28"-DCA)

CONT. ON
ISI-97027-A
(TW40-4"-DBA)

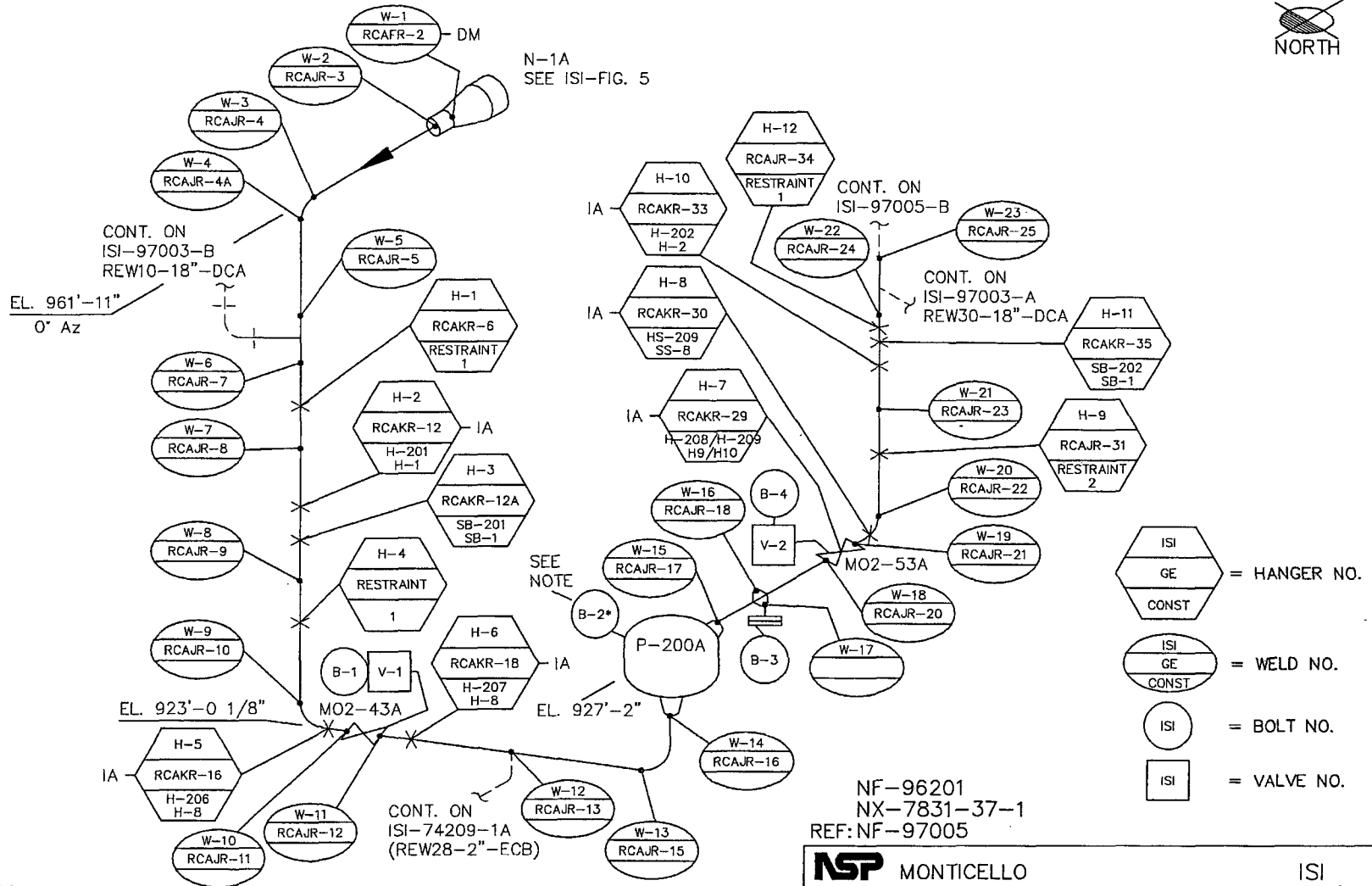
CONT. ON
ISI-13142-18A
(TW20-16"-DB)

-  = HANGER NO.
-  = WELD NO.
-  = BOLT NO.
-  = VALVE NO.

DM = DISSIMILAR METAL WELD
* = INACCESSIBLE

NF-74552
REF: NF-97004

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>JP</i>	APPD: <i>[Signature]</i>
SYSTEM: RHR RETURN LOOP "B"		
LINE: TW20-16"-DB		
DWG:	ISI-97004-A	REV: 05



N-1A
SEE ISI-FIG. 5

CONT. ON
ISI-97003-B
REW10-18"-DCA

EL. 961'-11"
0° Az

CONT. ON
ISI-97005-B

CONT. ON
ISI-97003-A
REW30-18"-DCA

SEE
NOTE

EL. 923'-0 1/8"

EL. 927'-2"

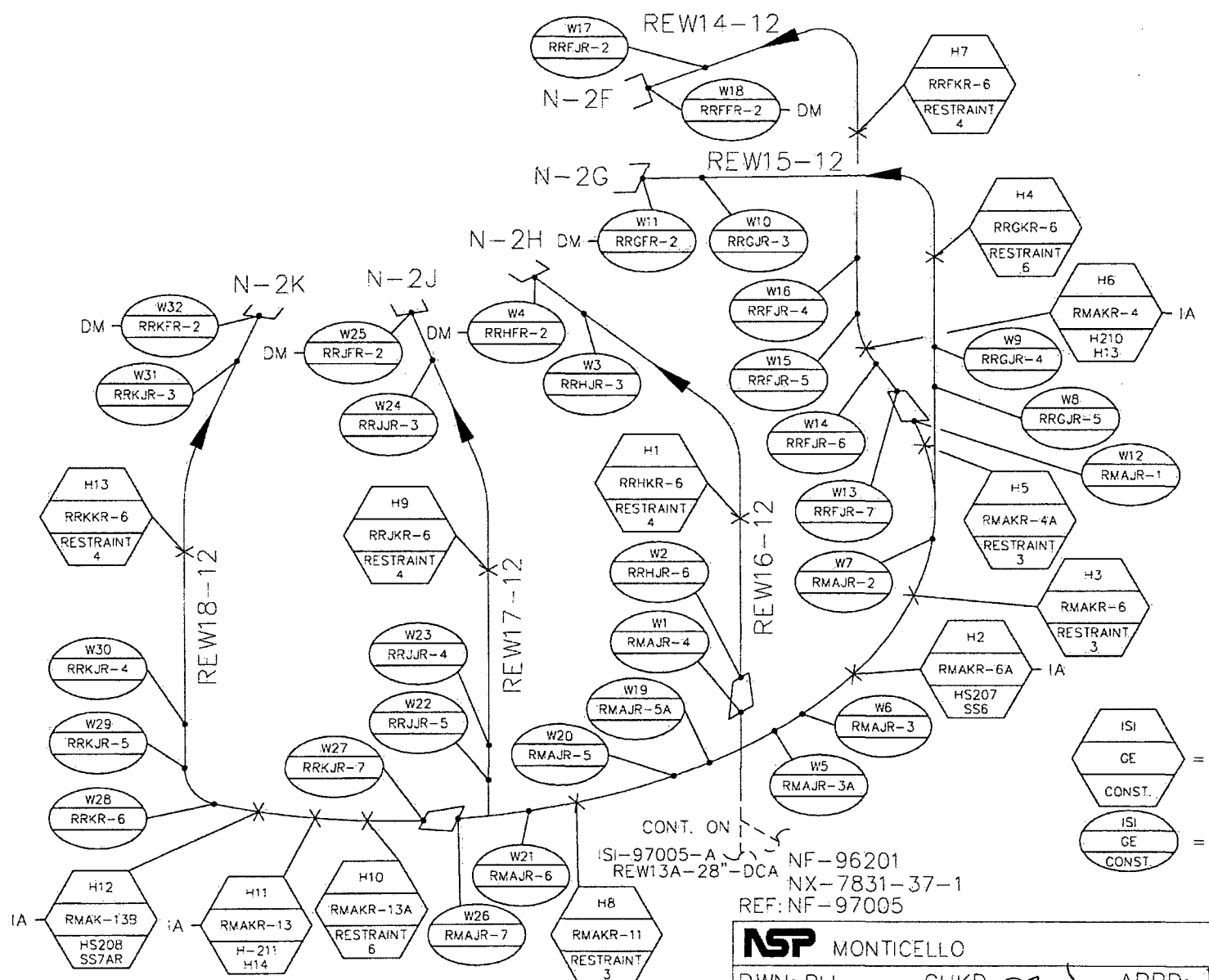
NF-96201
NX-7831-37-1
REF: NF-97005

- ISI (hexagon) = HANGER NO.
- ISI (circle) = WELD NO.
- ISI (circle) = BOLT NO.
- ISI (square) = VALVE NO.

NOTE:
LOCATED IN DRYWELL
*B2= BOLTS NUMBERED CLOCKWISE. BOLT (# 1) IN-LINE WITH INLET PIPING.

DM = DISSIMILAR METAL WELD
IA = INTEGRAL ATTACHMENT (ASME ITEM B10.20)

NSP MONTICELLO		ISI
DWN: JJP	CHKD: JP	APPD: [Signature]
SYSTEM: RECIRC LOOP "A"		
LINE: REW13A-28"-DCA		
DWG:	ISI-97005-A	REV: 06

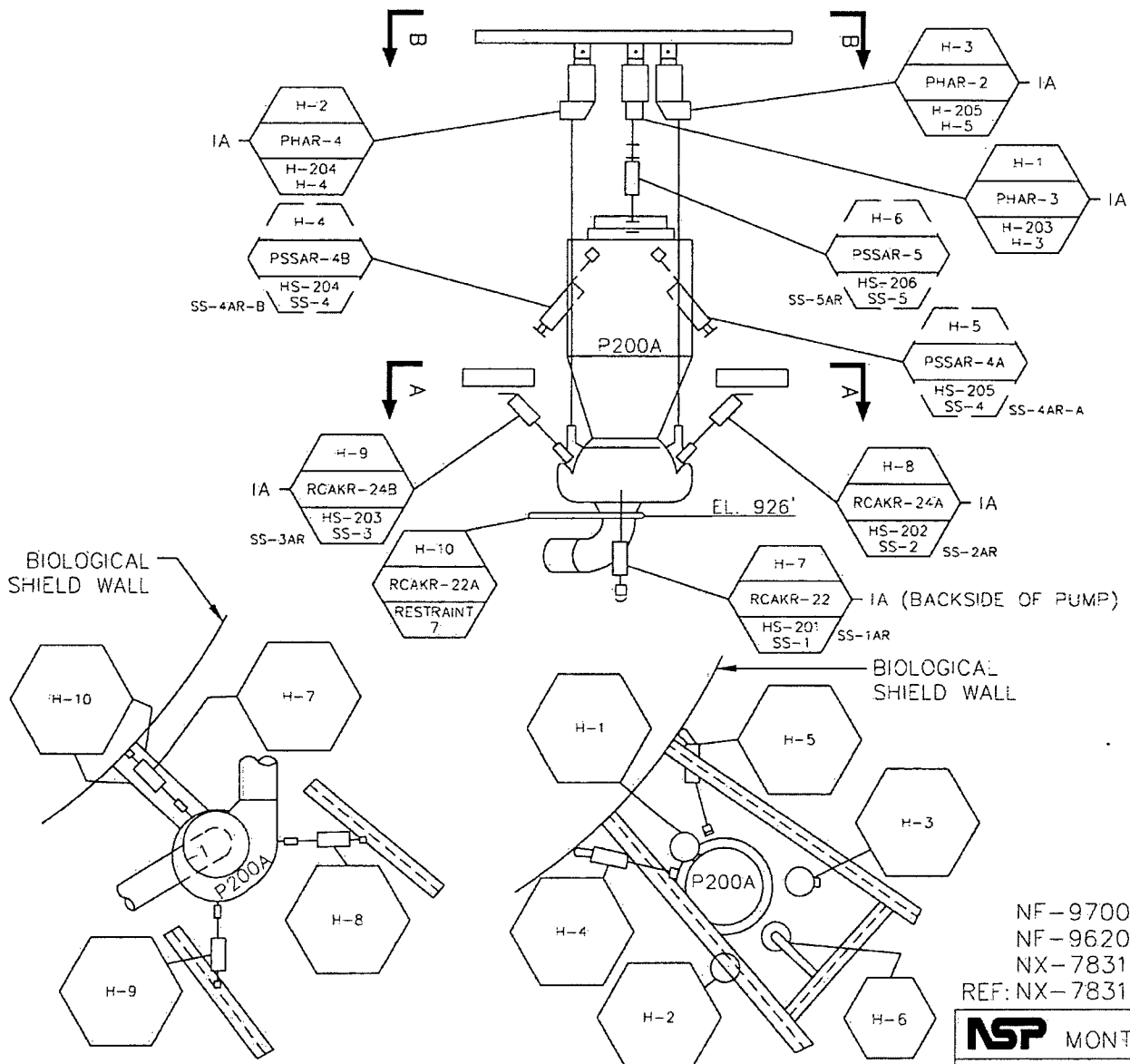


ISI
 GE = HANGER NO.
 CONST.
 ISI
 GE = WELD NO.
 CONST.

CONT. ON
 ISI-97005-A
 REW13A-28"-DCA NF-96201
 NX-7831-37-1
 REF: NF-97005

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>amj</i>	APPD: <i>RAO</i>
SYSTEM: RECIRC. MANIFOLD "A"		
LINE: REW32-22"		
DWG: ISI-97005-B	REV: 05	

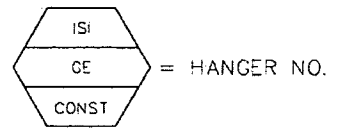
DM = DISSIMILAR METAL WELD
 IA = INTEGRAL ATTACHMENT (ASME ITEM B10.20)



PLAN 'A-A'
EL. 935'-0"

DRYWELL

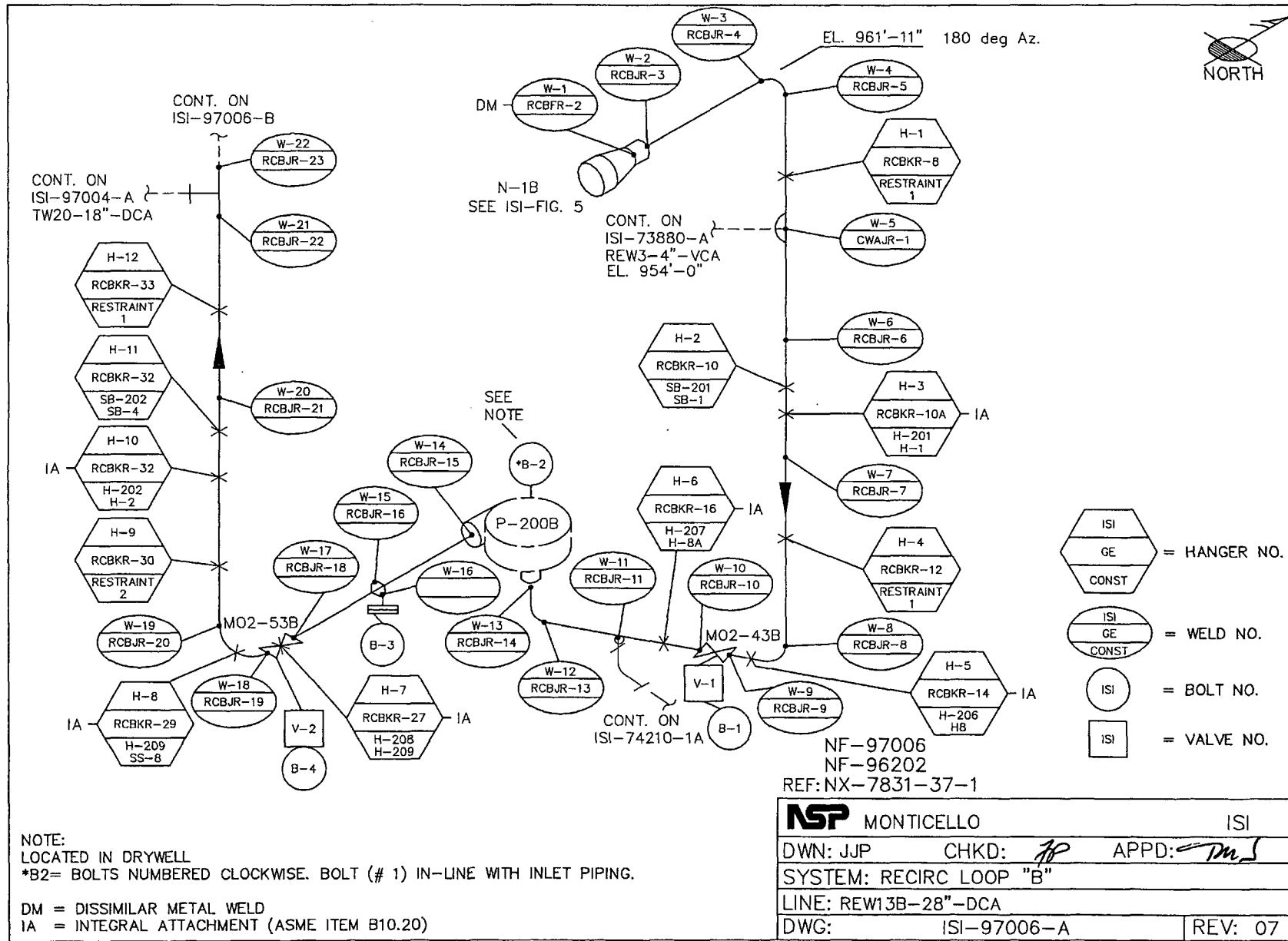
PLAN 'B-B'
EL. 952'-0"

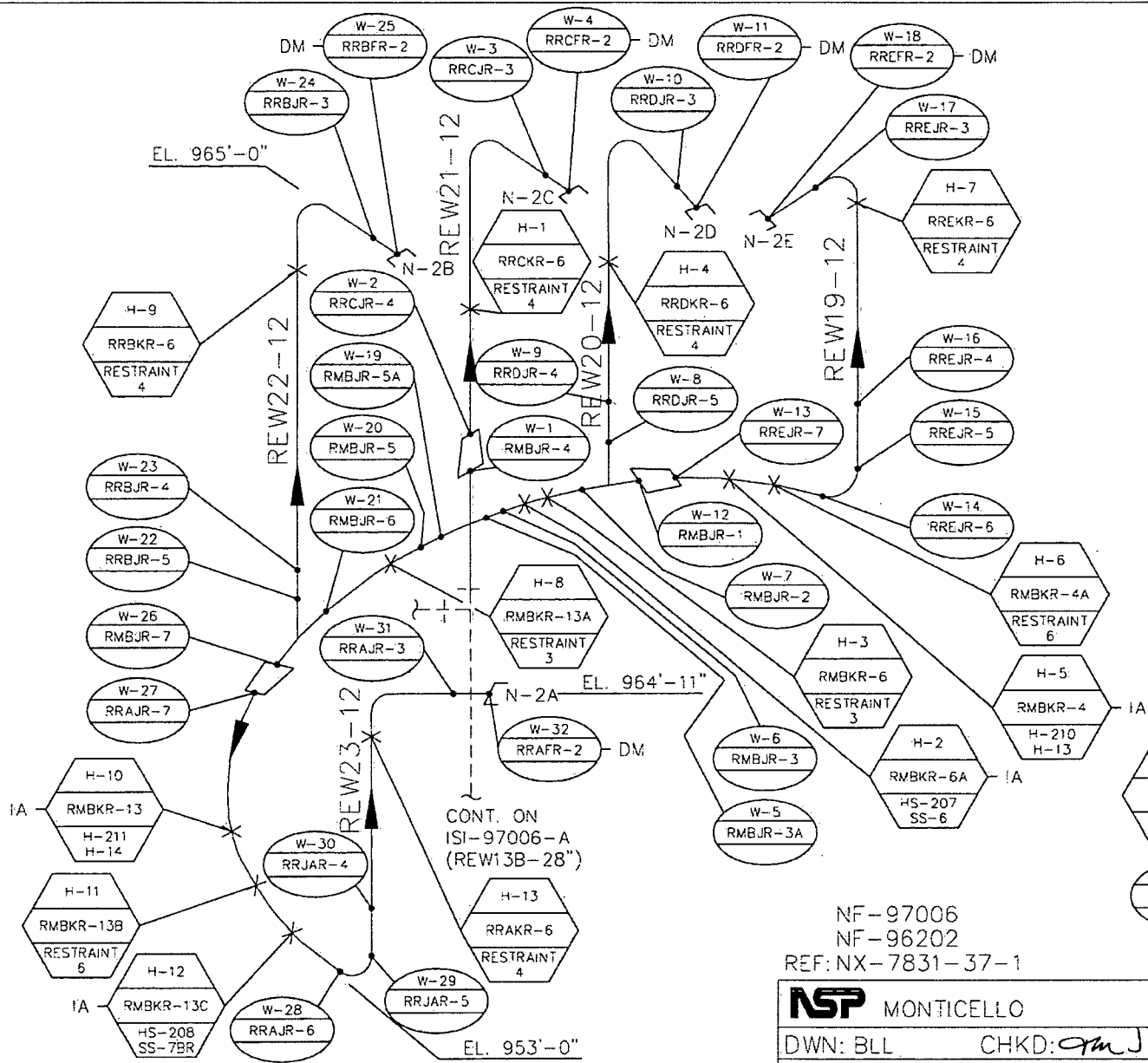


NF-97005
NF-96201
NX-7831-34
REF: NX-7831-37-3

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: RECIRC PUMP A SUPPORTS		
LINE:		
DWG:	ISI-97005-C	REV: 06

IA = INTEGRAL ATTACHMENT (ASME ITEM B10.30)





ISI
 GE = HANGER NO.
 CONST

 ISI
 GE = WELD NO.
 CONST

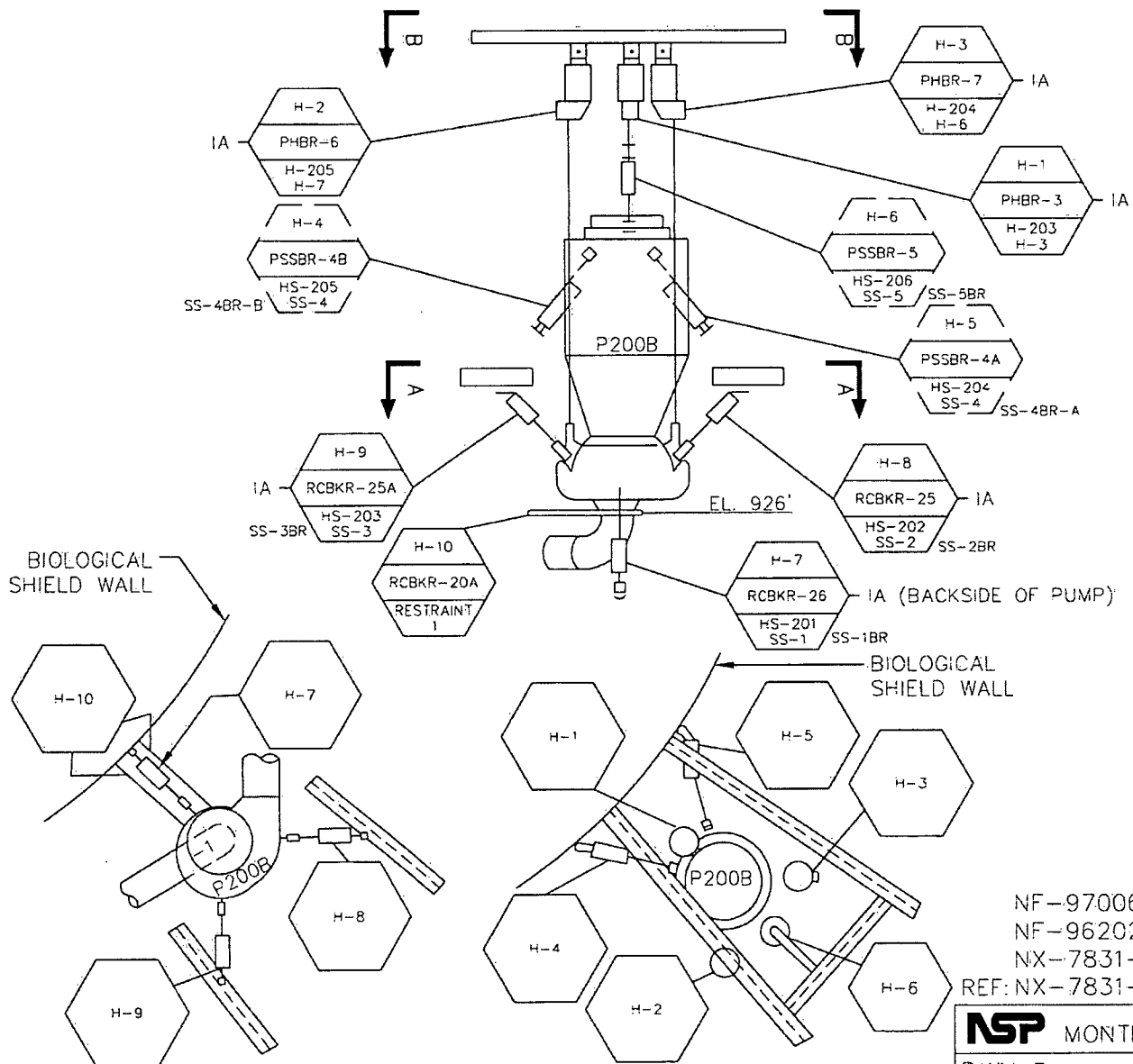
NF-97006
 NF-96202
 REF: NX-7831-37-1

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>cmj</i>	APPD: <i>RBO</i>
SYSTEM: RECIRC MANIFOLD "B"		
LINE: REW32-22"		
DWG:	ISI-97006-B	REV: 05

DM = DISSIMILAR METAL WELD
 IA = INTEGRAL ATTACHMENT (ASME ITEM B10.20)

DRYWELL

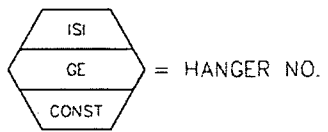
CONT. ON
 ISI-97006-A
 (REW13B-28")



PLAN 'A-A'
EL. 935'-0"

DRYWELL

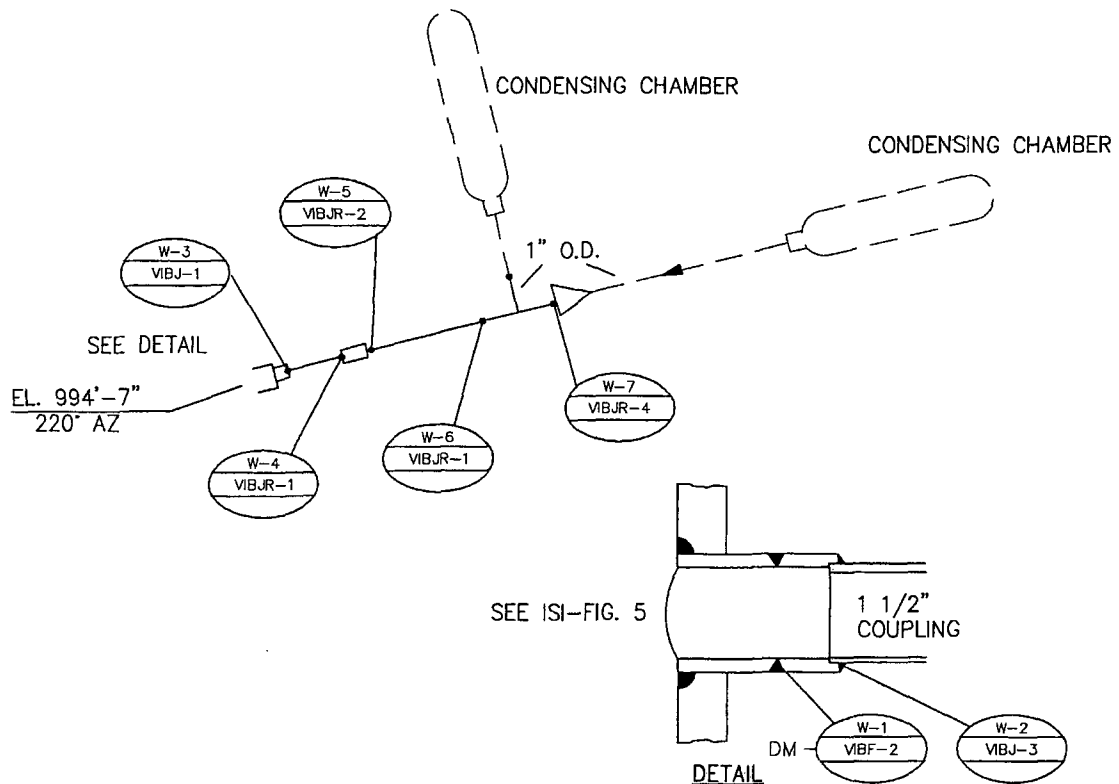
PLAN 'B-B'
EL. 952'-0"



NF-97006
NF-96202
NX-7831-34
REF: NX-7831-37-3

IA = INTEGRAL ATTACHMENT (ASME ITEM B10.30)

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>cmj</i>	APPD: <i>RBO</i>
SYSTEM: RECIRC PUMP B: SUPPORTS		
LINE:		
DWG:	ISI-97006-C	REV: 07



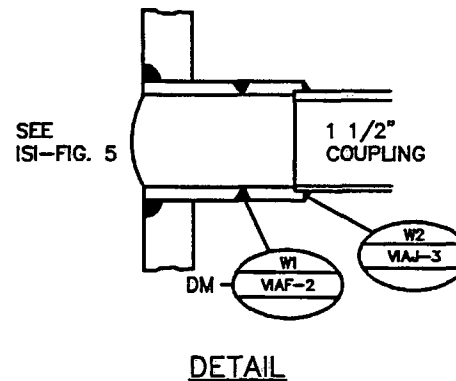
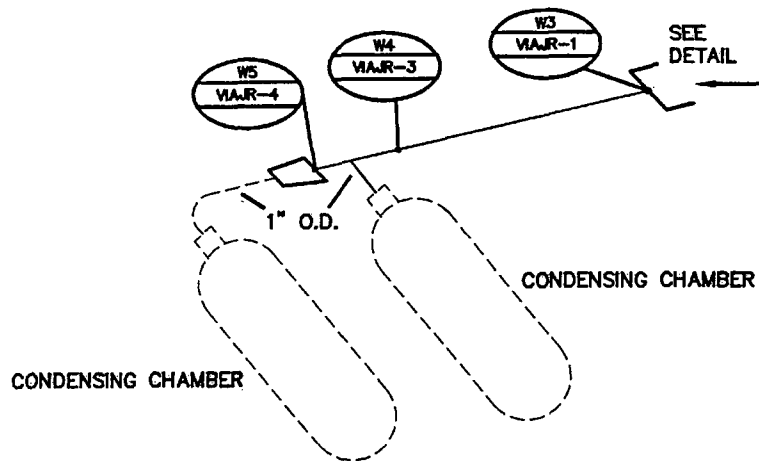
ISI
GE
CONST = WELD NO.

REF: NX-8290-62
REF: NF-97007

NSP MONTICELLO		ISI
DWN: JJP	CHKD: JP	APPD: <i>CPM</i>
SYSTEM: RX INST. NOZZLE N-11B		
LINE: RLM2- 1 1/2"-DCA		
DWG:	ISI-97007-A	REV: 05

NOTE:
LOCATED IN DRYWELL

DM = DISSIMILAR METAL WELD



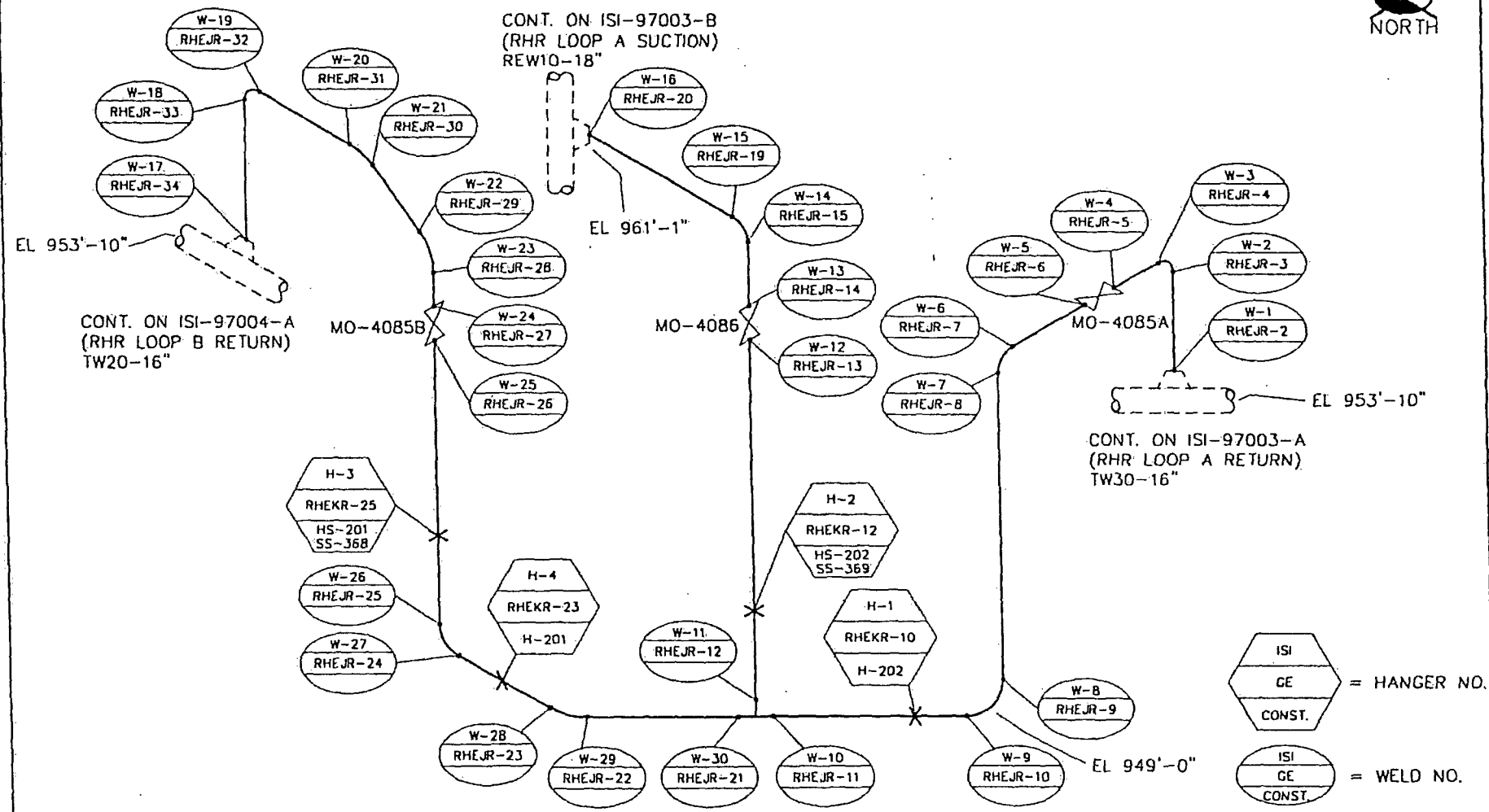
ISI
GE
CONST = WELD NO.

REF: NX-8290-62
REF: NF-97008

NSP MONTICELLO		ISI
DWN: JJP	CHKD: <i>P</i>	APPD: <i>com</i>
SYSTEM: RX INST. NOZZLE N-11A		
LINE: RLM1-1/2"-DCA		
DWG:	ISI-97008-A	REV: 05

NOTE:
LOCATED IN DRYWELL

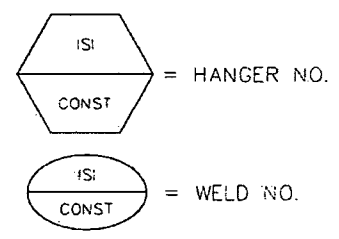
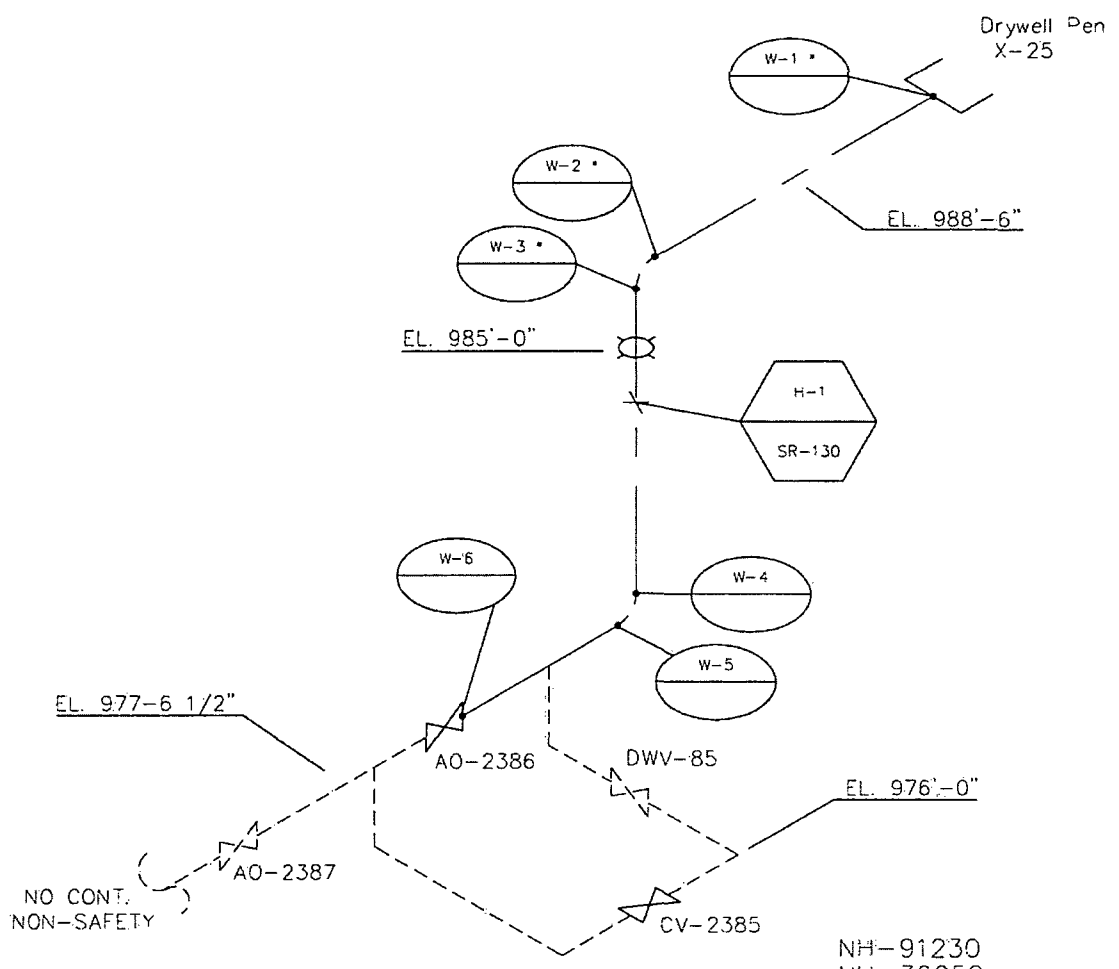
DM = DISSIMILAR METAL WELD



NOTE:
LOCATED IN DRYWELL

REF: NF-97027

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: RHR EQUALIZER		
LINE: TW40-4"-DBA		
DWG: ISI-97027-A	REV: 05	

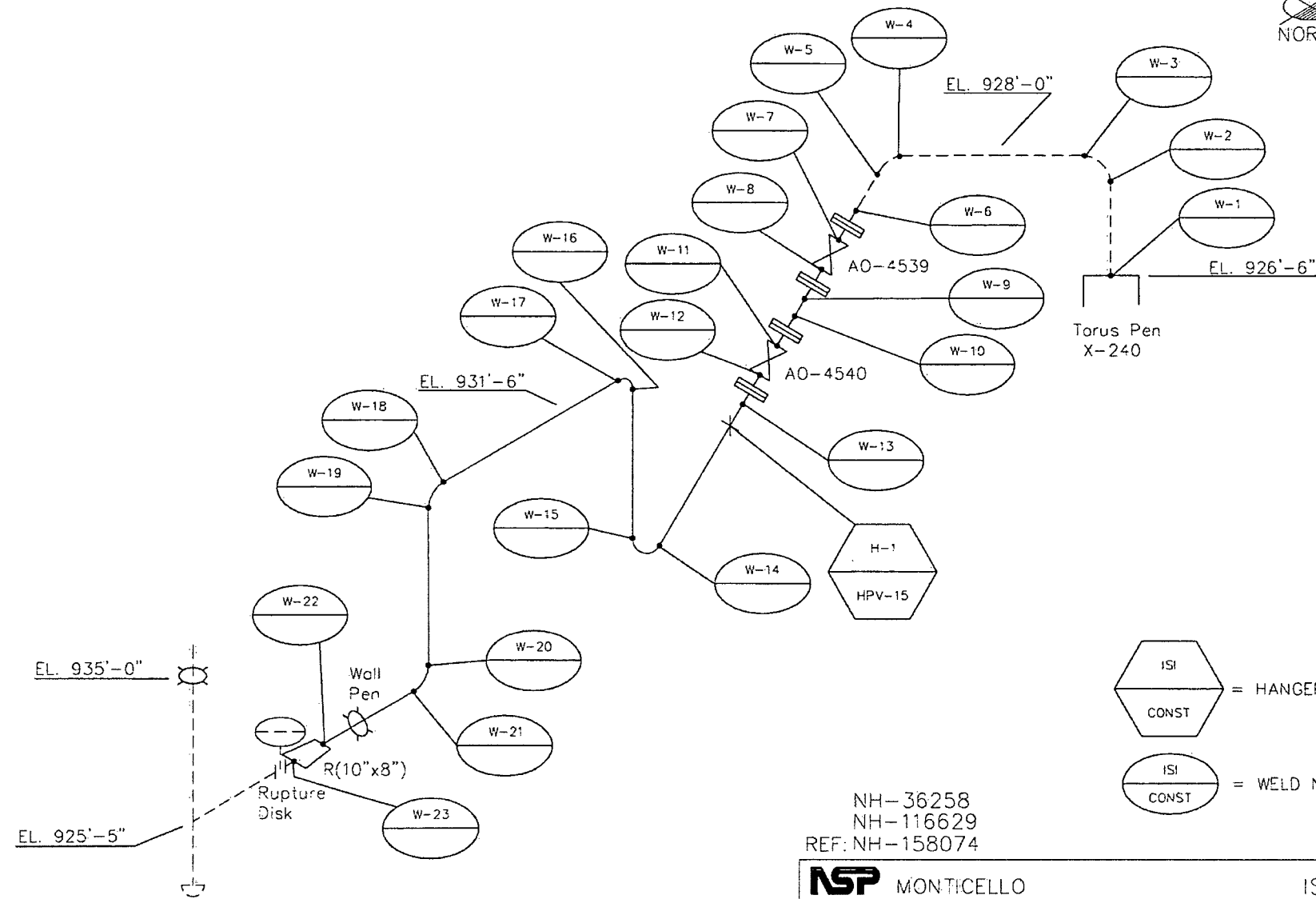


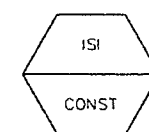
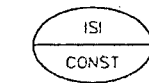
NH-91230
 NH-36258
 REF: NH-105531

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>ThJ</i>	APPD: <i>RSD</i>
SYSTEM: STANDBY GAS TRTMT & RX PLENUM		
LINE: CP2-18"-HE		
DWG:	ISI-105531-A	REV: 03

NOTE:
 COMPONENTS BELOW 985' ARE IN RWCJ ROOM

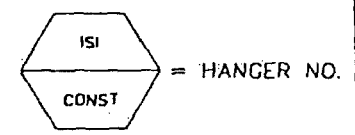
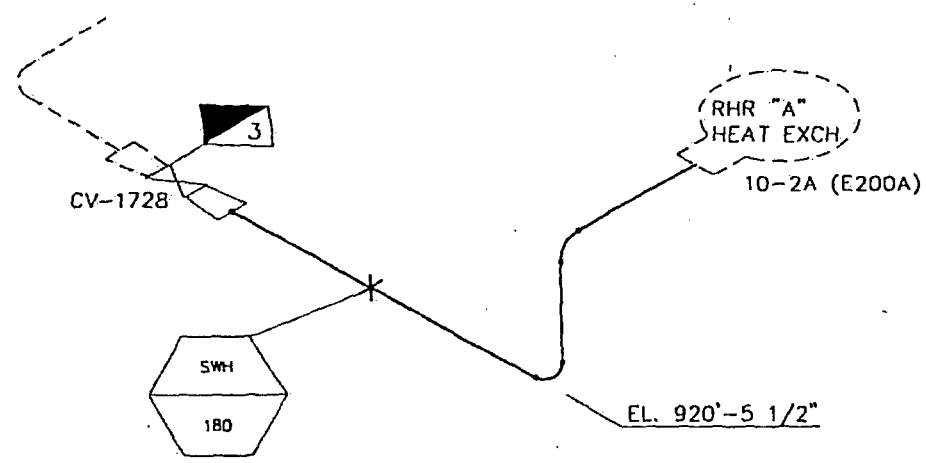
* = INACCESSIBLE



 = HANGER NO.
 = WELD NO.

NH-36258
 NH-116629
 REF: NH-158074

NSP MONTICELLO		ISI
DWN: BLL	CHKD: <i>CMJ</i>	APPD: <i>RKD</i>
SYSTEM: TORUS HARD PIPE VENT		
LINE: HPV-8"-HE		
DWG:	ISI-158074-A	REV: 04



REF: NX-13142-16

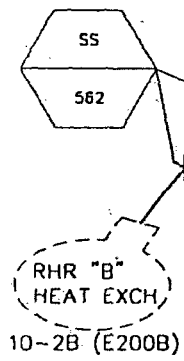
NSP MONTICELLO	ISI
DWN: MCWI	CHKD: <i>RA</i> APPD: <i>DAW</i>
SYSTEM: RHR SERVICE WATER	
LINE: SW11-16"-GF	
DWG: ND-ISI-100	REV: 02

NOTE:
LOCATED IN RHR "A" ROOM

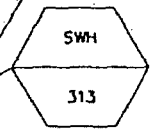
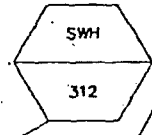
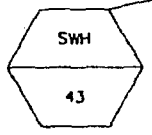
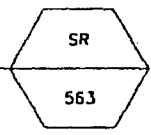


RHR "B" ROOM | TORUS ROOM

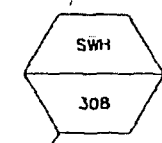
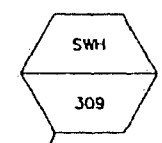
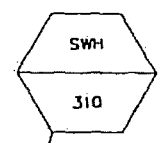
SW10-16"-GF



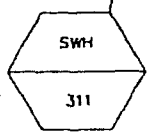
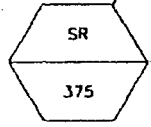
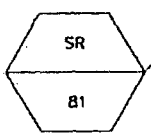
EL. 923'-10"
RHR-SW-3-2



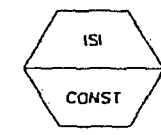
SW10-18"-GF



CONT ON DWG
ND-ISI-102



EL. 897'-3"



= HANGER NO.

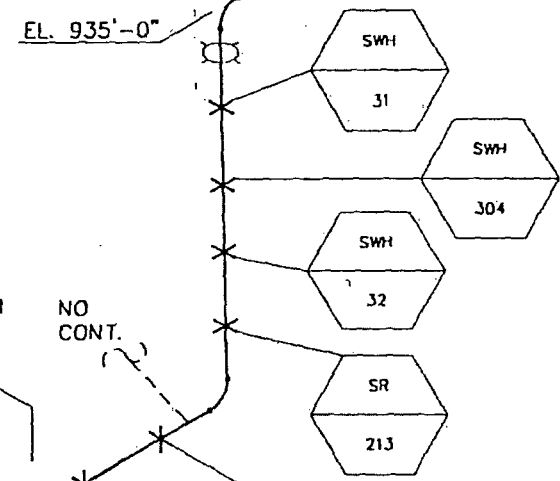
REF: NX-13142-50

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RJD</i>	APPD: <i>OSW</i>
SYSTEM: RHR SERVICE WATER		
LINE: AS NOTED		
DWG:	ND-ISI-101	REV: 02

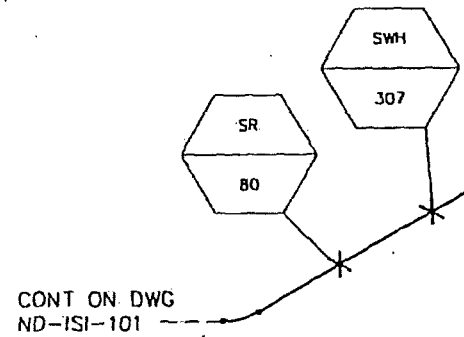
NOTE:
LOCATED IN REACTOR BLDG



EL. 944'-3"
 TURBINE BLDG
 CONDENSER ROOM
 RX BLDG
 CONT ON
 ND-ISI-110

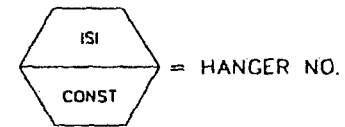
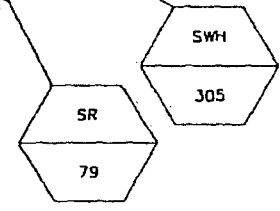
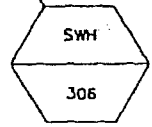


RCIC ROOM
 TORUS ROOM
 NO CONT.



CONT ON DWG
 ND-ISI-101

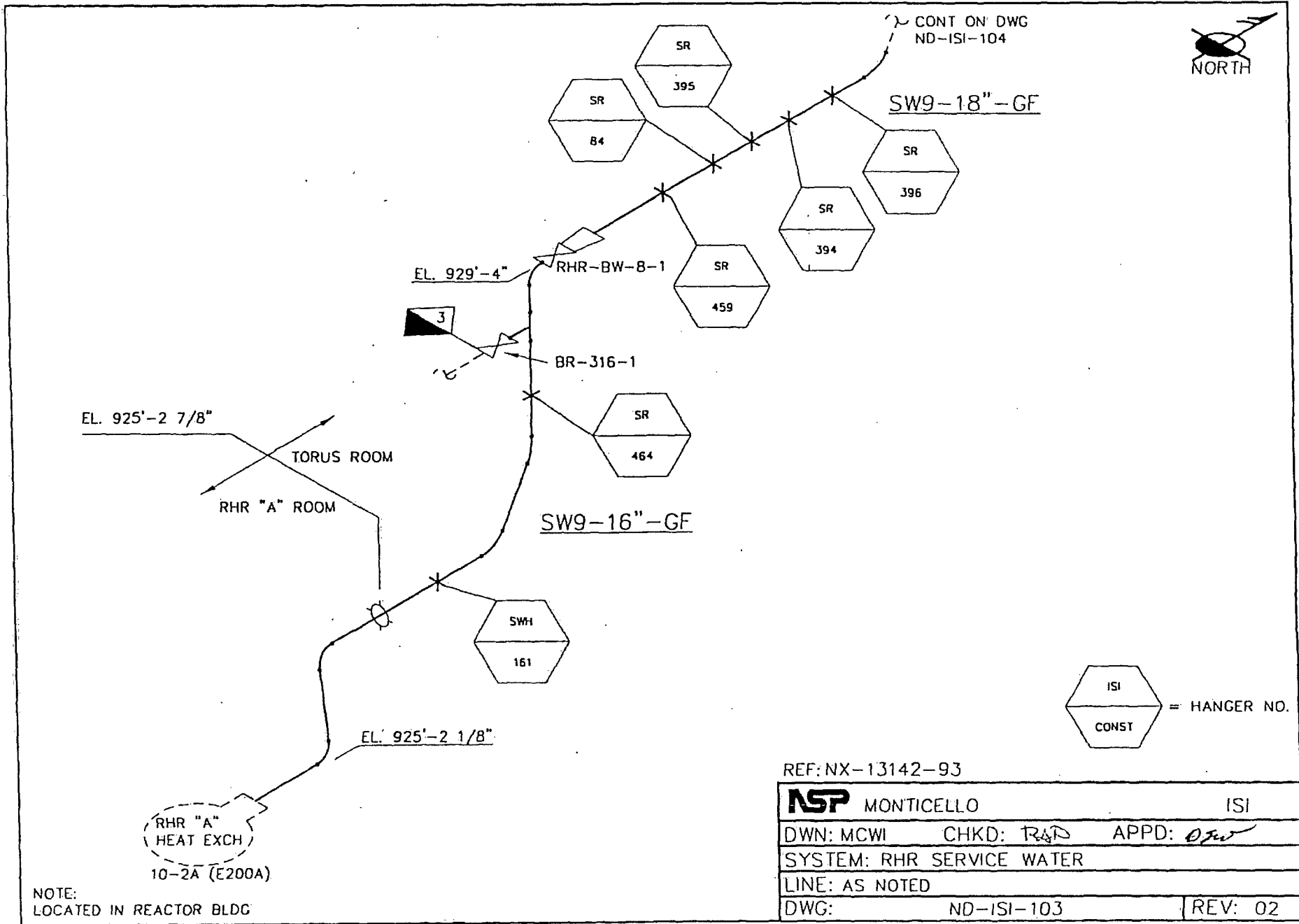
EL. 897'-3"



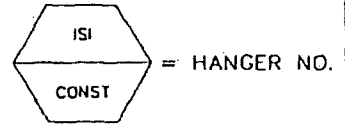
REF: NX-13142-50

NSP MONTICELLO		ISI
DWN: MCWJ	CHKD: <i>TRD</i>	APPD: <i>DW</i>
SYSTEM: RHR SERVICE WATER		
LINE: SW10-18"-GF		
DWG: ND-ISI-102	REV: 01	

NOTE: LOCATED IN REACTOR BLDG

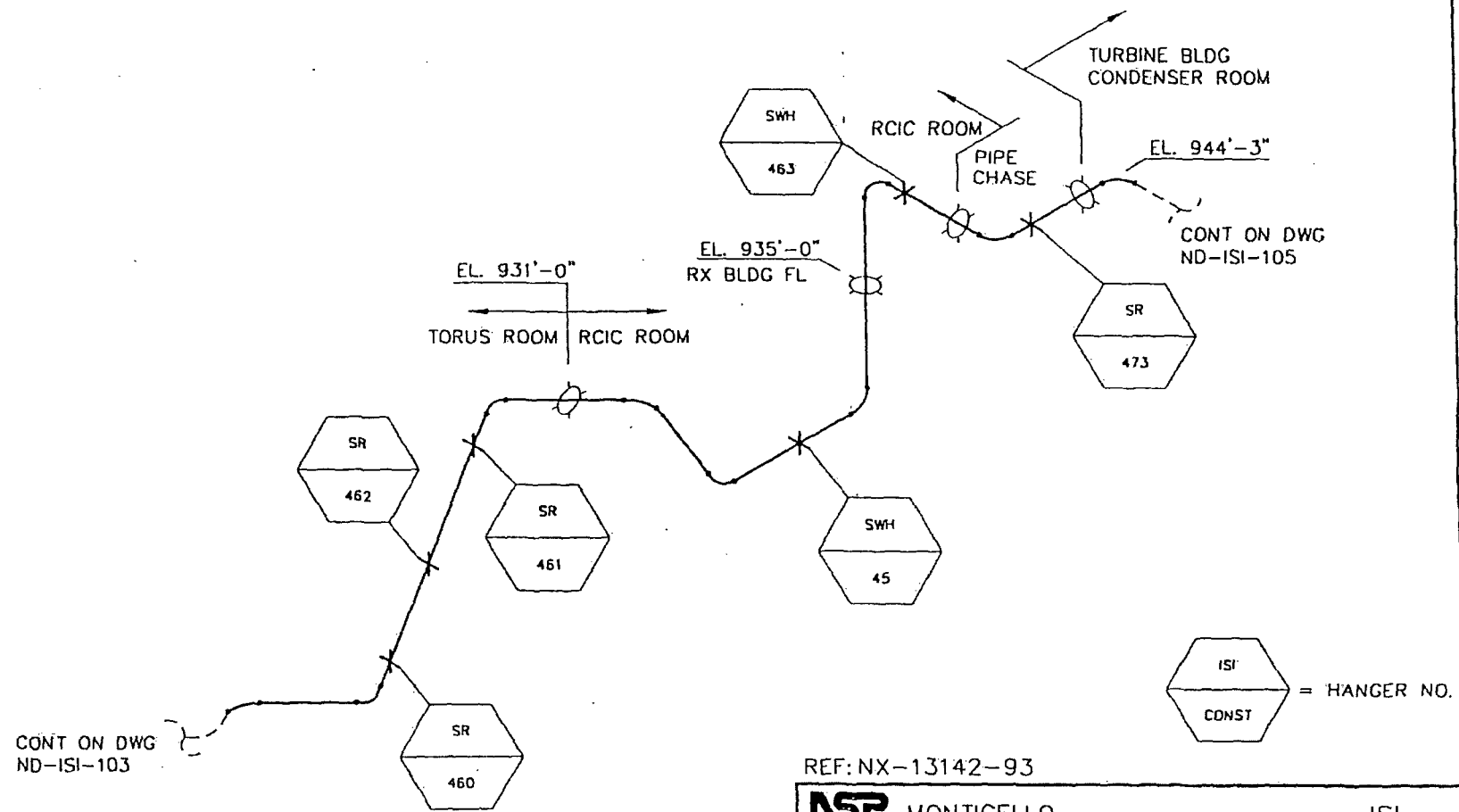


CONT ON DWG
ND-ISI-104



REF: NX-13142-93	
NSP MONTICELLO	ISI
DWN: MCWI	CHKD: TRP APPD: <i>DFW</i>
SYSTEM: RHR SERVICE WATER	
LINE: AS NOTED	
DWG: ND-ISI-103	REV: 02

NOTE:
LOCATED IN REACTOR BLDG



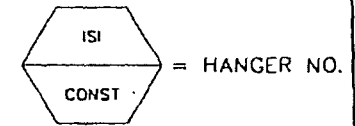
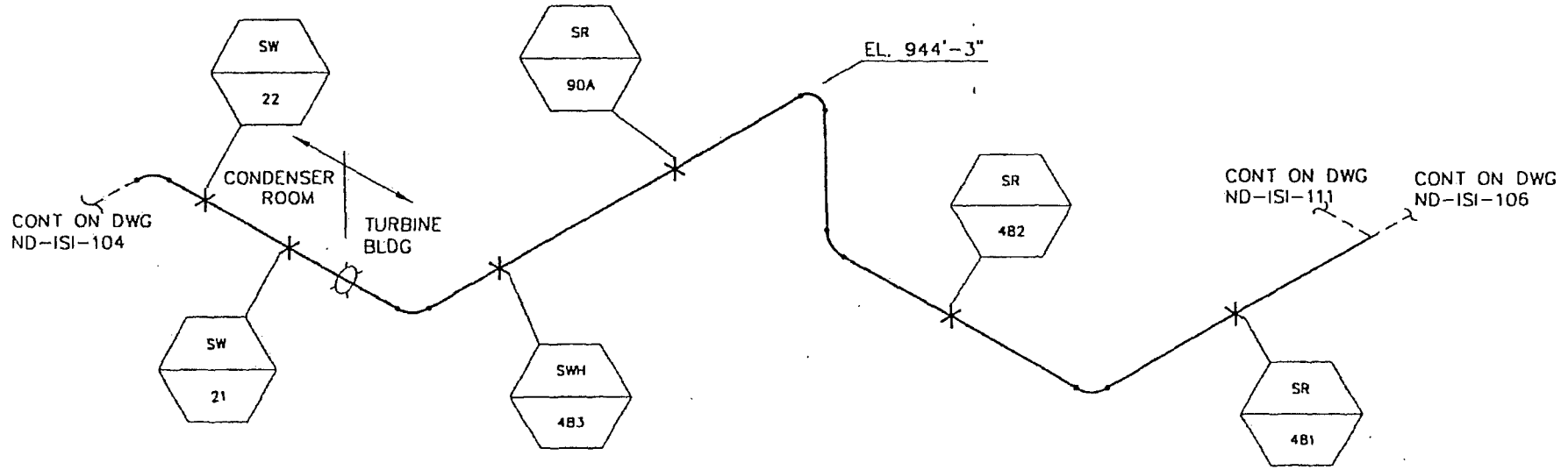
CONT ON DWG
ND-ISI-103

ISI
CONST = HANGER NO.

REF: NX-13142-93

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: <i>DSW</i>
SYSTEM: RHR SERVICE WATER		
LINE: SW9-18"-GF		
DWG: ND-ISI-104	REV: 01	

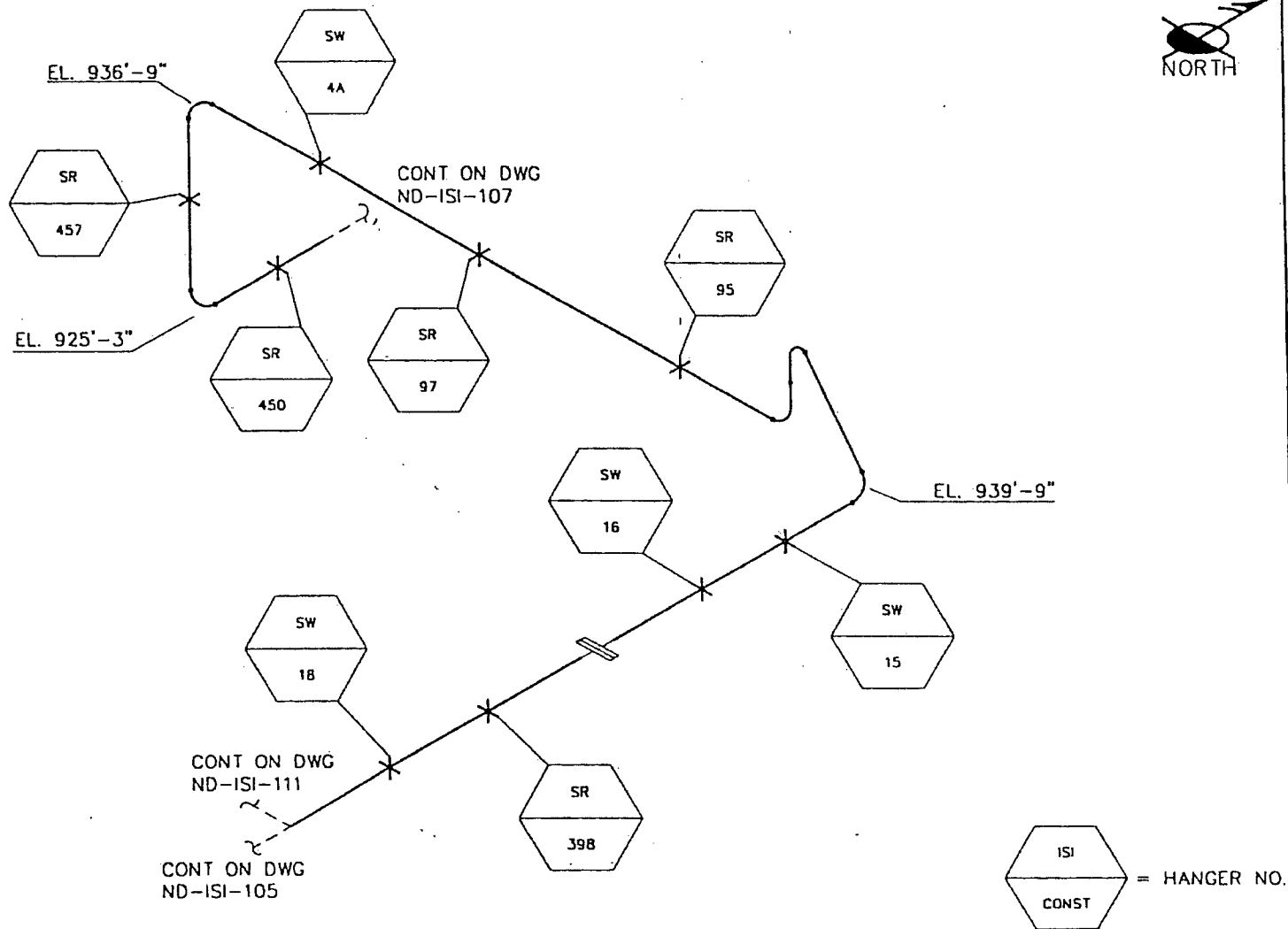
NOTE: LOCATED IN REACTOR BLDG



NOTE: LOCATED IN TURBINE BLDG

REF: NX-13142-12

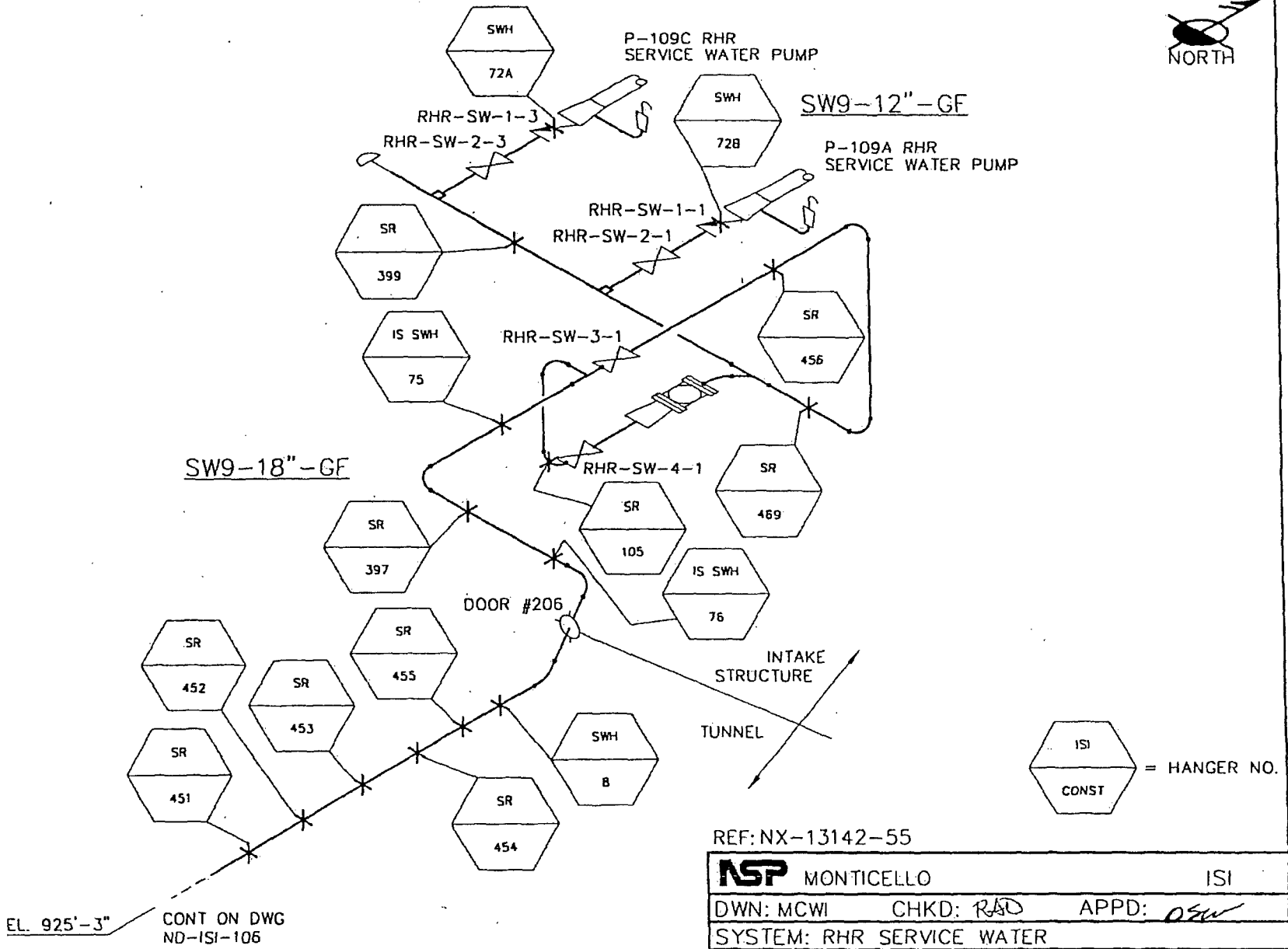
NSP MONTICELLO	ISI
DWN: MCWI CHKD: <i>RA</i>	APPD: <i>OSW</i>
SYSTEM: RHR SERVICE WATER	
LINE: SW9-18"-GF	
DWG: ND-ISI-105	REV: 01



NOTE:
LOCATED IN TURBINE BLDG

REF: NX-13142-12

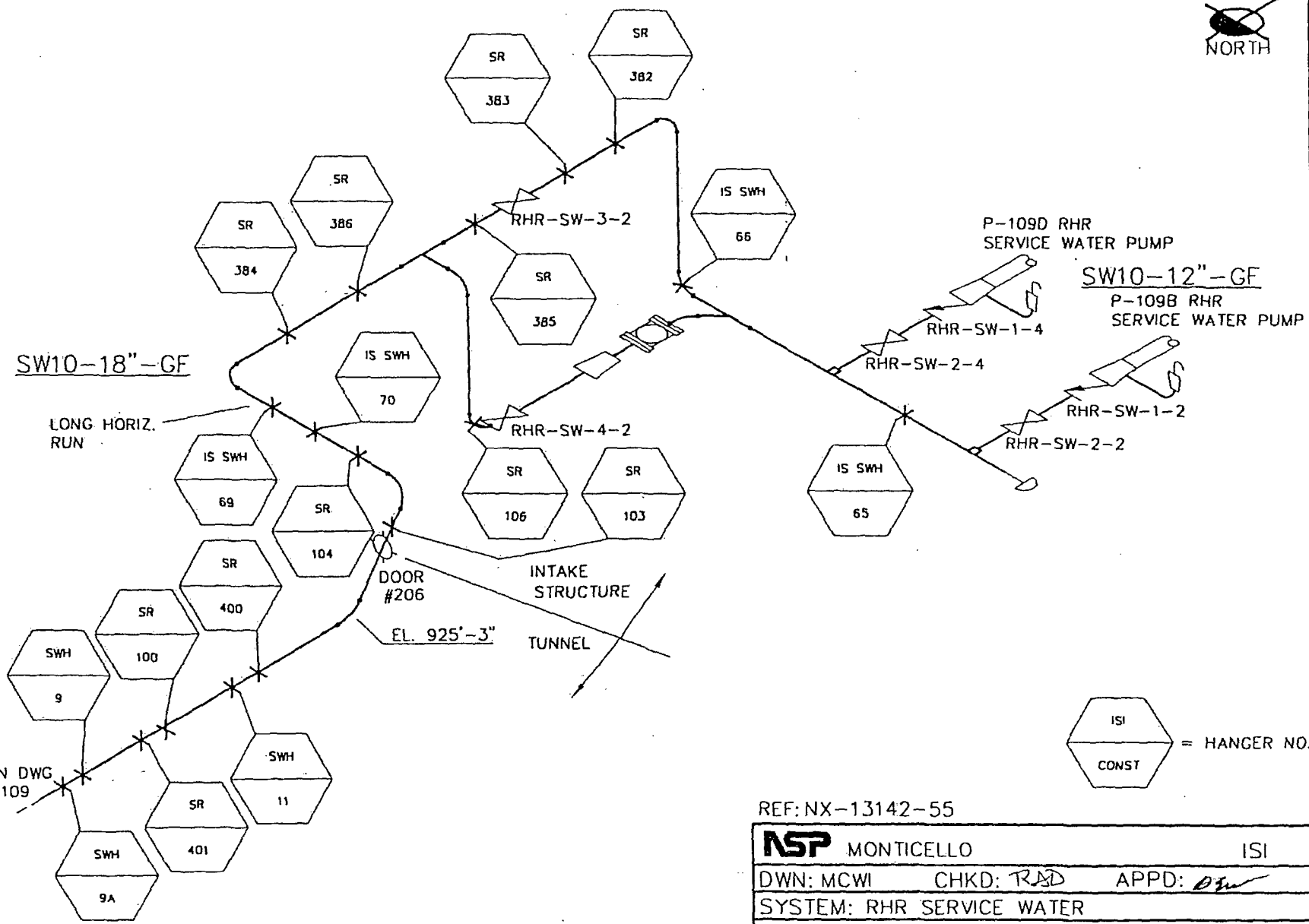
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>TRW</i>	APPD: <i>OSW</i>
SYSTEM: RHR SERVICE WATER		
LINE: SW9-18"-GF		
DWG: ND-ISI-106	REV: 02	



REF: NX-13142-55

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RAD</i>	APPD: <i>OSW</i>
SYSTEM: RHR SERVICE WATER		
LINE: AS NOTED		
DWG: ND-ISI-107	REV: 02	

NOTE:
LOCATED IN TURBINE BLDG

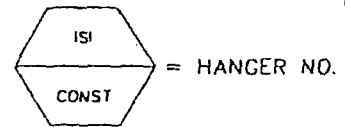


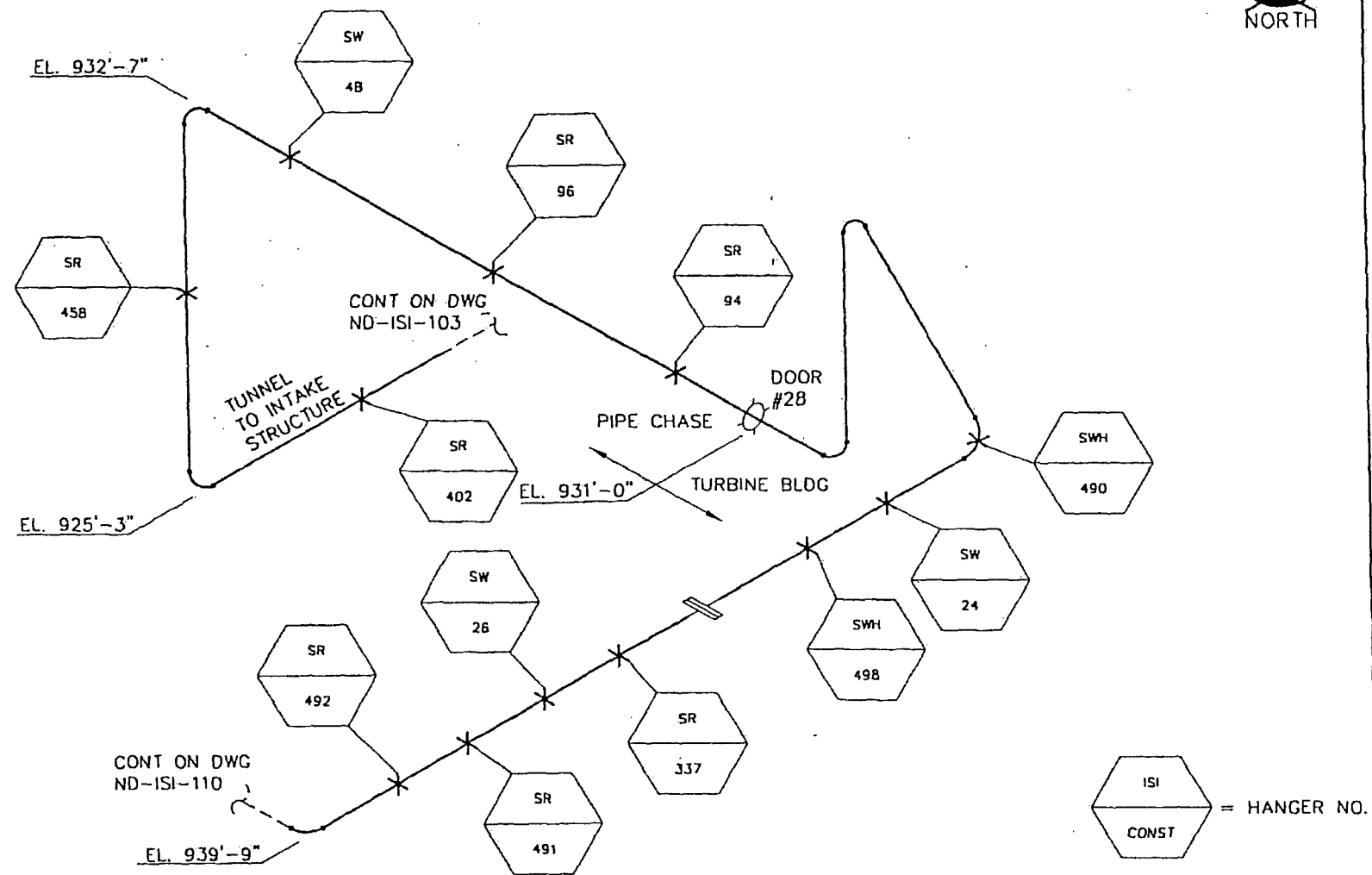
CONT ON DWG
ND-ISI-109

NOTE:
LOCATED IN TURBINE BLDG

REF: NX-13142-55

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: RAD	APPD: <i>DR</i>
SYSTEM: RHR SERVICE WATER		
LINE: AS NOTED		
DWG:	ND-ISI-108	REV: 02





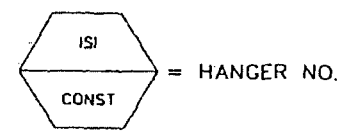
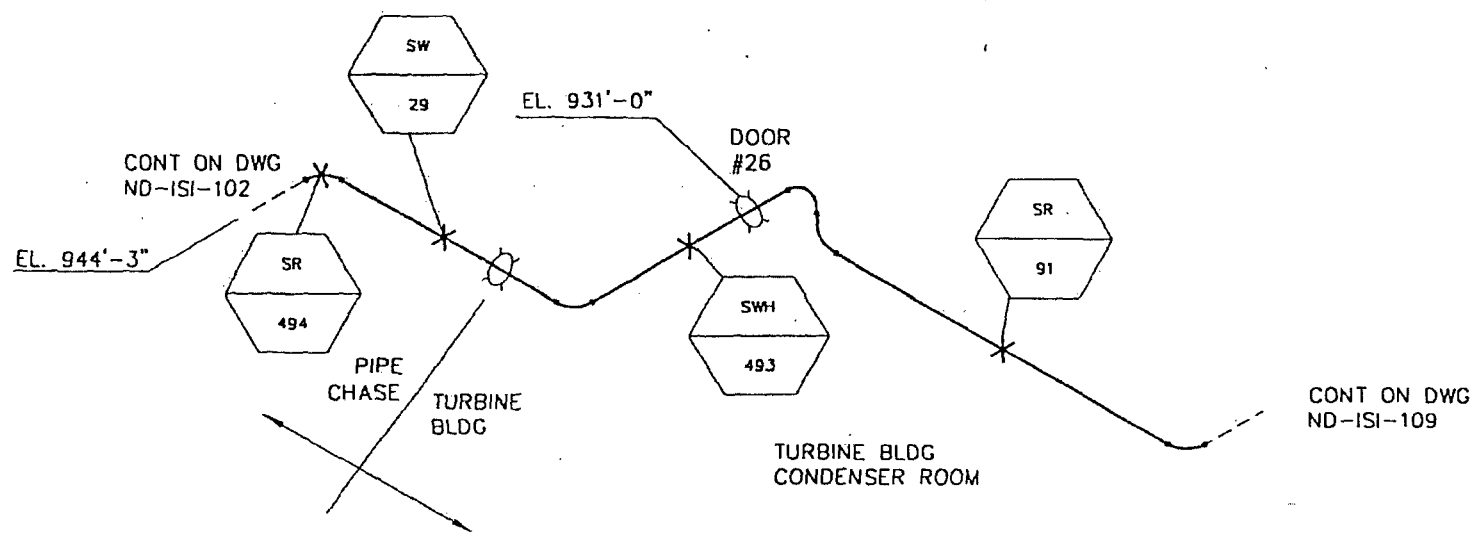
CONT ON DWG
ND-ISI-110

CONT ON DWG
ND-ISI-103

REF: NX-13142-92

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RD</i>	APPD: <i>DSW</i>
SYSTEM: RHR SERVICE WATER		
LINE: SW10-18"-GF		
DWG: ND-ISI-109	REV: 02	

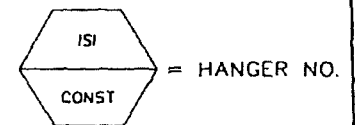
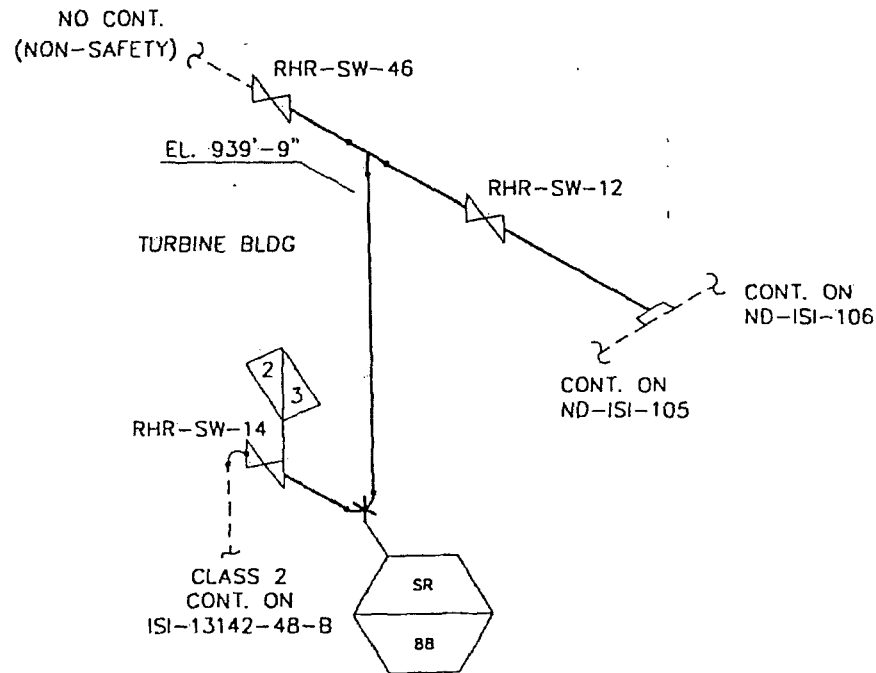
NOTE:
LOCATED IN TURBINE BLDG



REF: NX-13142-92

NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>RJS</i>	APPD: <i>DSW</i>
SYSTEM: RHR SERVICE WATER		
LINE: SW10-18"-GF		
DWG:	ND-ISI-110	REV: 01

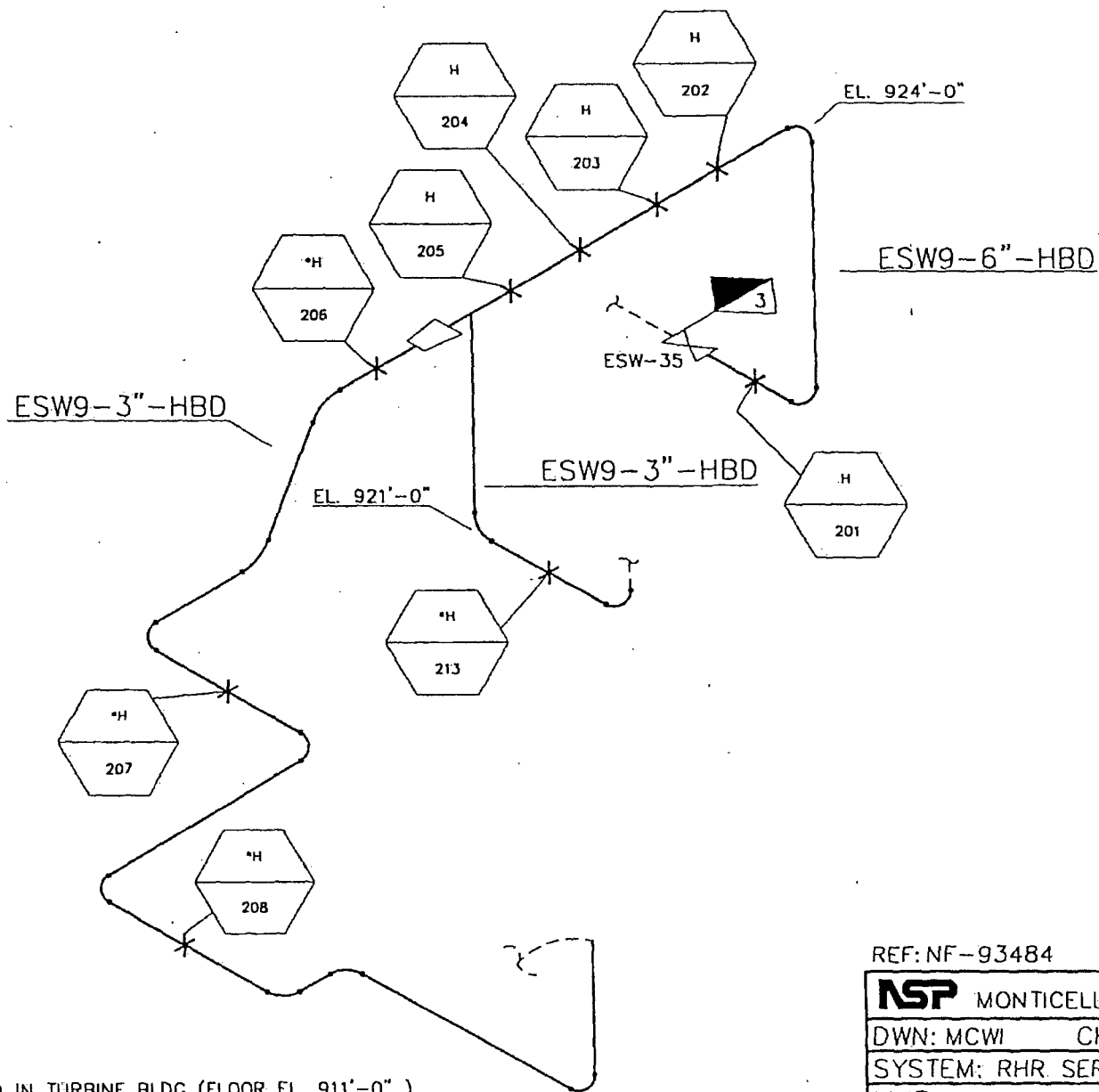
NOTE: LOCATED IN TURBINE BLDG



NH-91187-1
REF: NX-13142-48

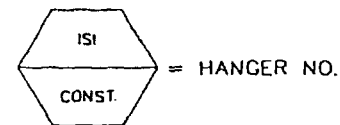
NSP MONTICELLO		ISI
DWN: MCWI	CHKD: <i>TRSD</i>	APPD: <i>DSW</i>
SYSTEM: RHR SERVICE WATER		
LINE: SW9-8"-GF		
DWG:	ND-ISI-111	REV: 03

NOTE:
LOCATED IN TURBINE BLDG (FLOOR EL. 931'-0")



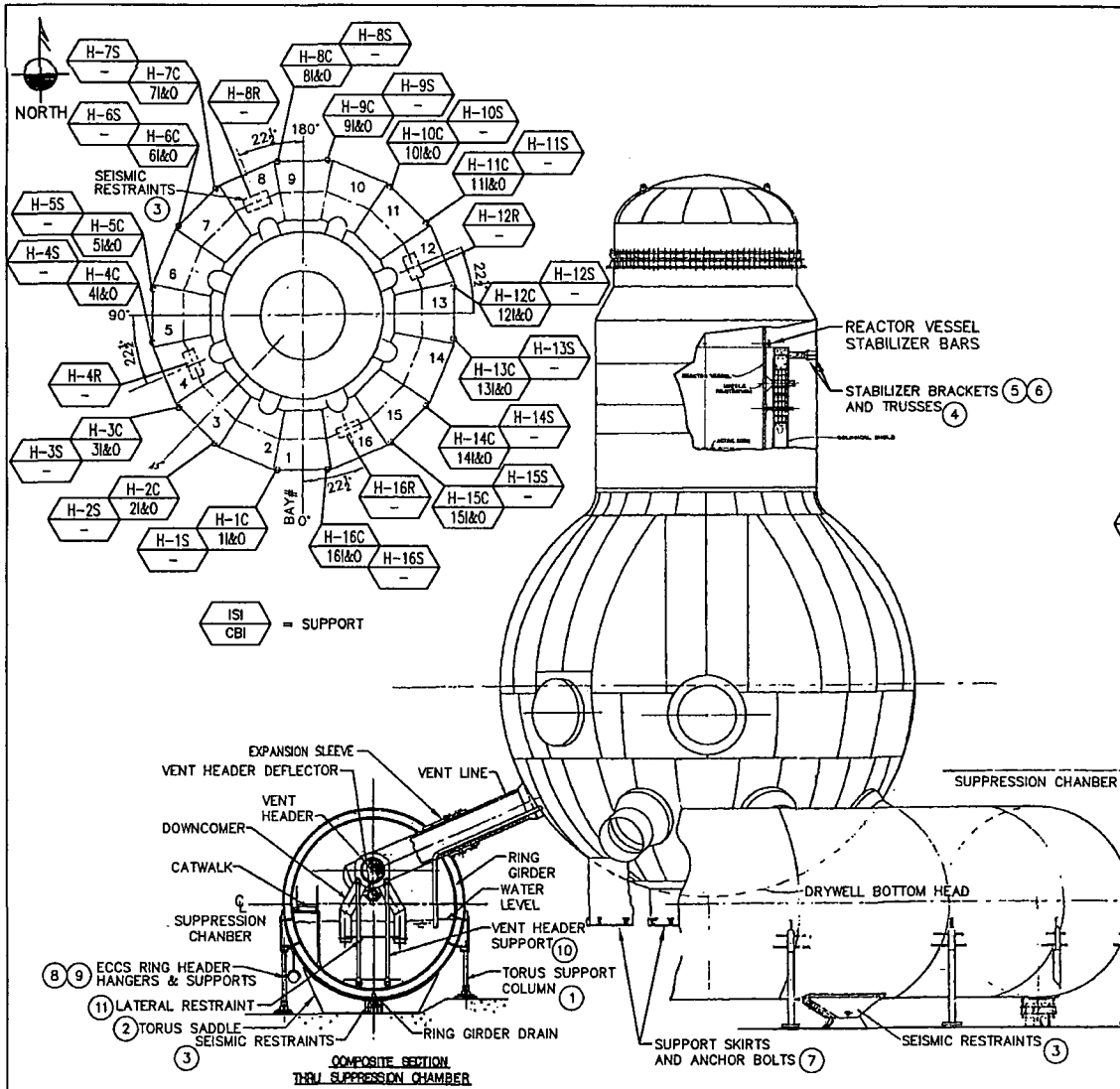
NOTE:
LOCATED IN TURBINE BLDG (FLOOR EL. 911'-0")

* = SUPPORT IS EXEMPT PER IWF-1230 (IWD-1220(o))

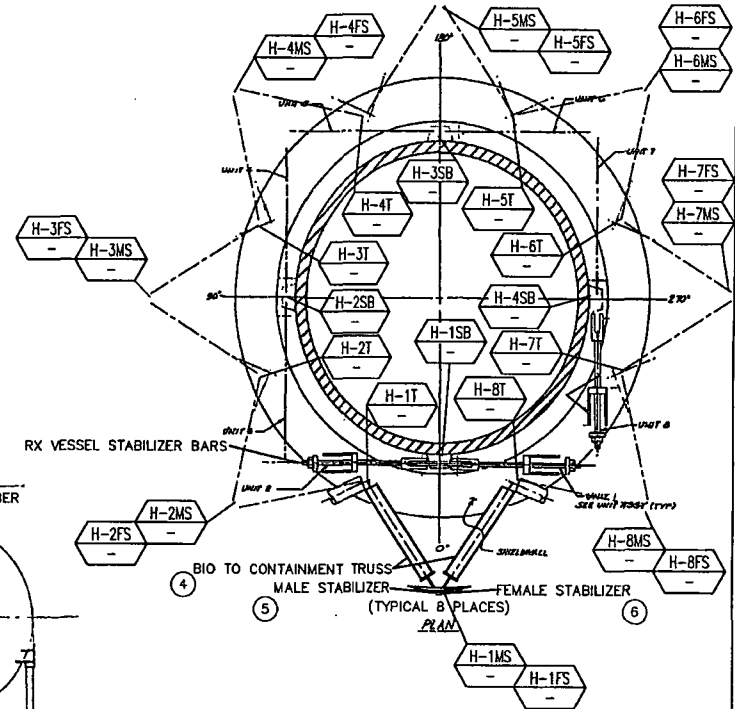


REF: NF-93484

NSP MONTICELLO	ISI	
DWN: MCWI	CHKD: RAD	APPD: <i>OSW</i>
SYSTEM: RHR. SERVICE WATER		
LINE: AS NOTED		
DWG: ND-ISI-123	REV: 02	



ASME CLASS MC SUPPORTS		
Item	Description	Plant ISO
1	Torus Inboard and Outboard Columns	NX-8291-20, -76, NH-73025-1, -2, NH-73028, NH-73027, NH-73028
2	Torus Saddles	NH-91989-1, -2, NH-91990-1, -2
3	Torus Seismic Restraints	NX-8291-20, -26, -76
4	Shield Stabilizers & Trusses	NX-7823-9, NF-36423
5	Drywell Male Stabilizers	NX-8291-37, 1.5.78
6	Drywell Female Stabilizers	NX-8291-38, 1.5.78
7	Drywell Support Skin & Anchor Bolts	NX-8291-10, -104, -105, -107, -108, -109, -111
8	ECCS Ring Header Hangers	NL-95931-3, NX-8291-52, NH-95932
9	ECCS Header Seismic Restraints / Struts	NH-95919, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32
10	Vent Header Columns	NH-78799, NX-8291-25, -34, 40
11	Downcomer Bracing / Restraints	NX-8291-25, NH-66911, NH-91155-2, NH-94692-1

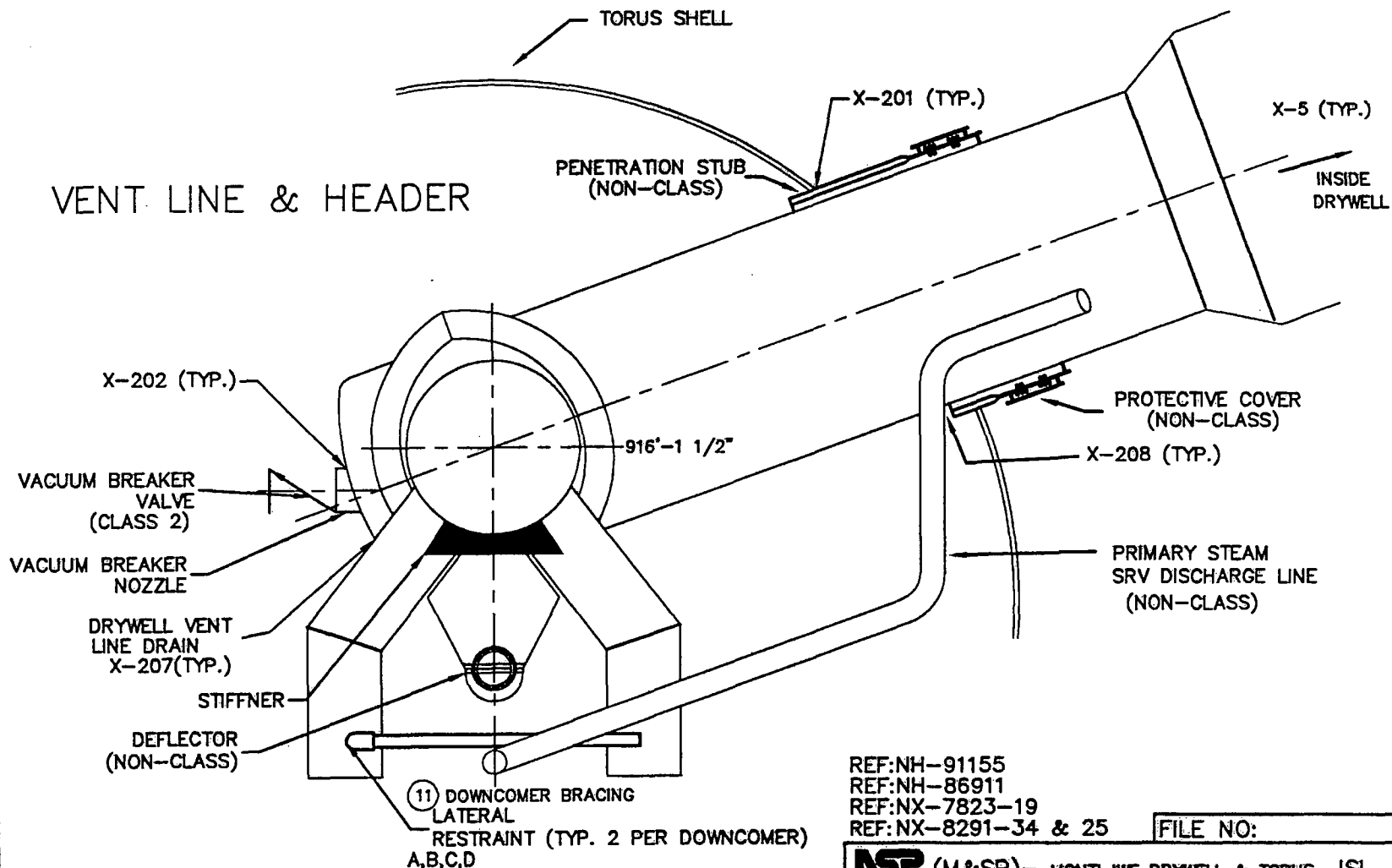


REF: NF-36423
 REF: NX-8291-37
 REF: NX-8291-26
 REF: NH-91990
 REF: NH-73028
 REF: NH-73027
 REF: NX-8291-20
 REF: NH-73026
 REF: NH-73025

FILE NO:		ISI
NSP (M&SP) - MONTI		ISI
DWN: JJP	CHKD: JJP	APPD: <i>[Signature]</i>
SYSTEM:		
REF: NX-8291-76		
DWG:	ISI-8291-76	REV: 00

F:\SA\Monti\ISI-8291-76 rev 0.dwg

VENT LINE & HEADER



NOTE: BOUNDARY FOR THE VACUUM BREAKERS IS AT THE 1ST FACE FLANGE.
BOLTING, GASKETS, VALVES & BLANK FLANGES ARE CLASS 2.

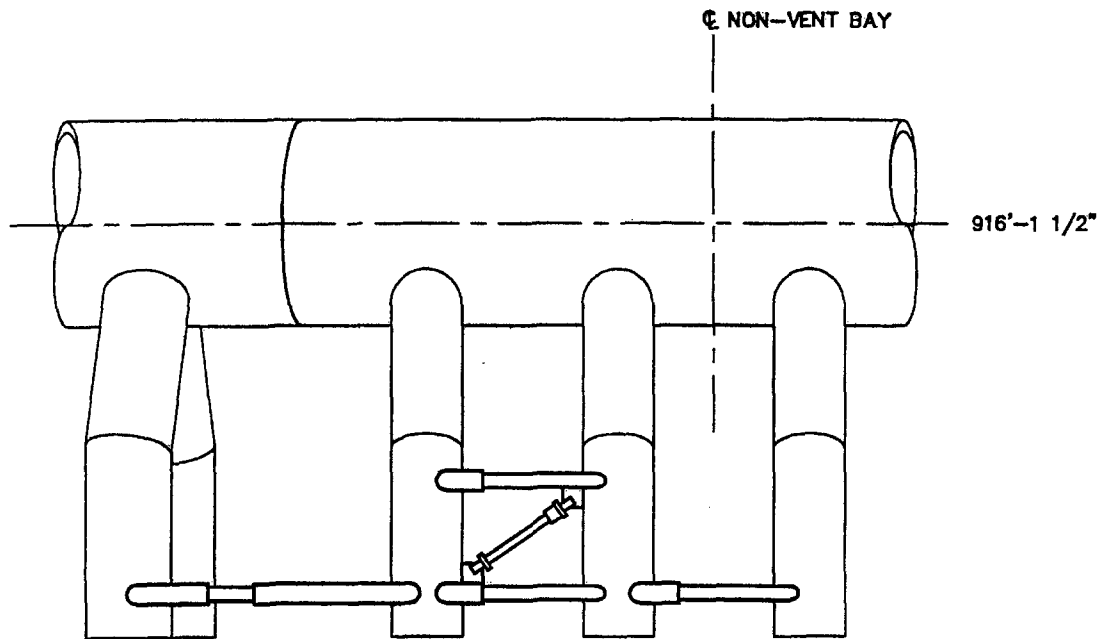
ALL SURFACES ARE CLASS 1C EXCEPT WHERE NOTED.

WORK IN CONJUNCTION WITH DWGS: 1.5.55 ; 1.5.70 ; 1.5.82
NX-8291-34-A ; NX-8291-34-B

REF:NH-91155
REF:NH-86911
REF:NX-7823-19
REF:NX-8291-34 & 25

FILE NO:

NSP (M&SP) - MONTI IWE DRYWELL & TORUS ISI		
DWN: JJP	CHKD: <i>[Signature]</i>	APPD: <i>[Signature]</i>
SYSTEM: PRIMARY CONTAINMENT		
LINE:		
DWG:	1.5.81	REV: 01



⑪ DOWNCOMER BRACING

VENT LINE & HEADER RESTRAINTS

E,F (INBOARD & OUTBOARD, TYP. EACH NON-VENT BAY)

REF: NH-94692-1 & 2

REF: NX-8291-34

FILE NO:

NSP (M&SP) - MONTI IWE DRYWELL & TORUS ISI

DWN: JJP CHKD: *JJP* APPD: *MD*

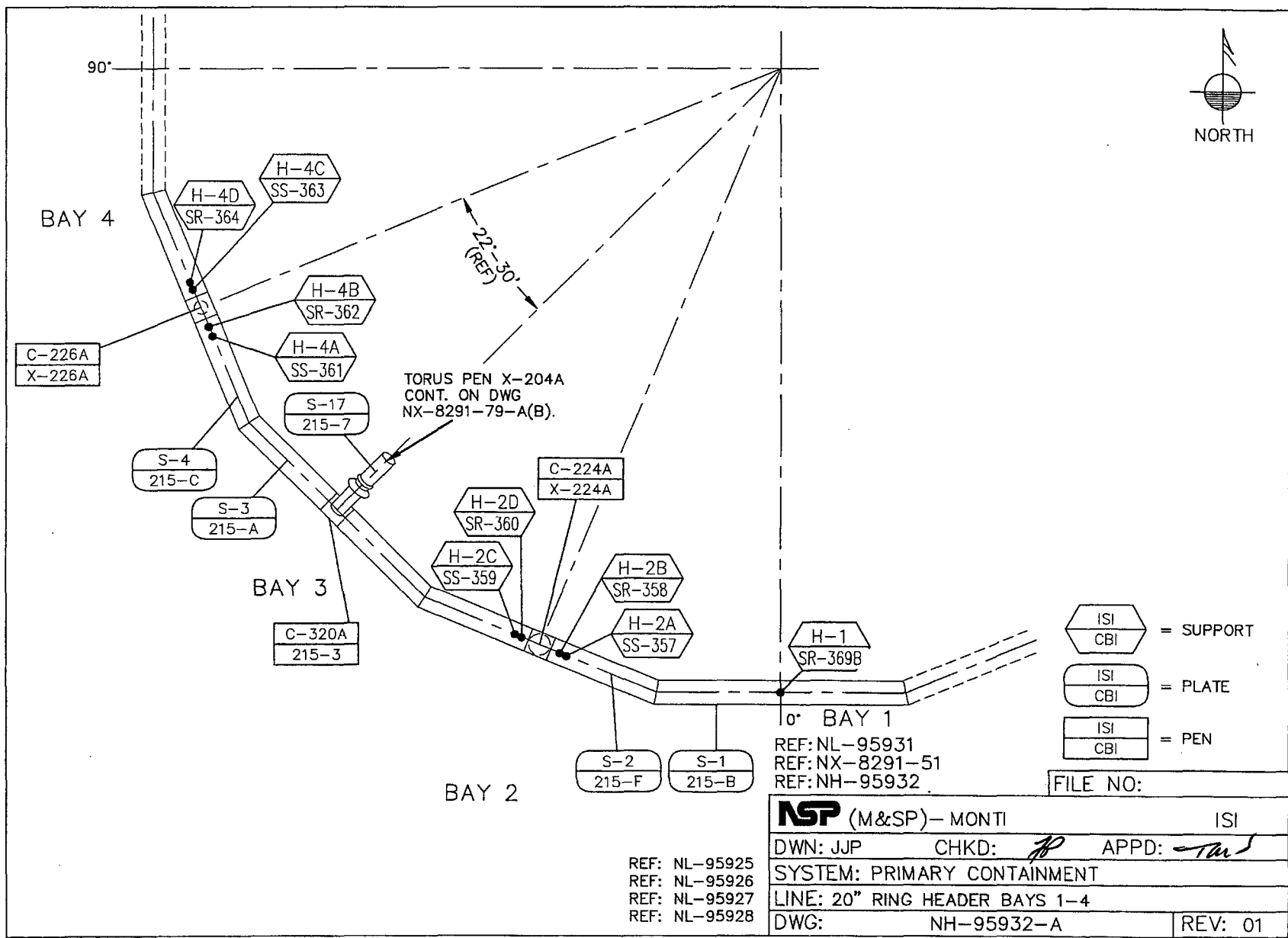
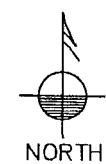
SYSTEM: PRIMARY CONTAINMENT

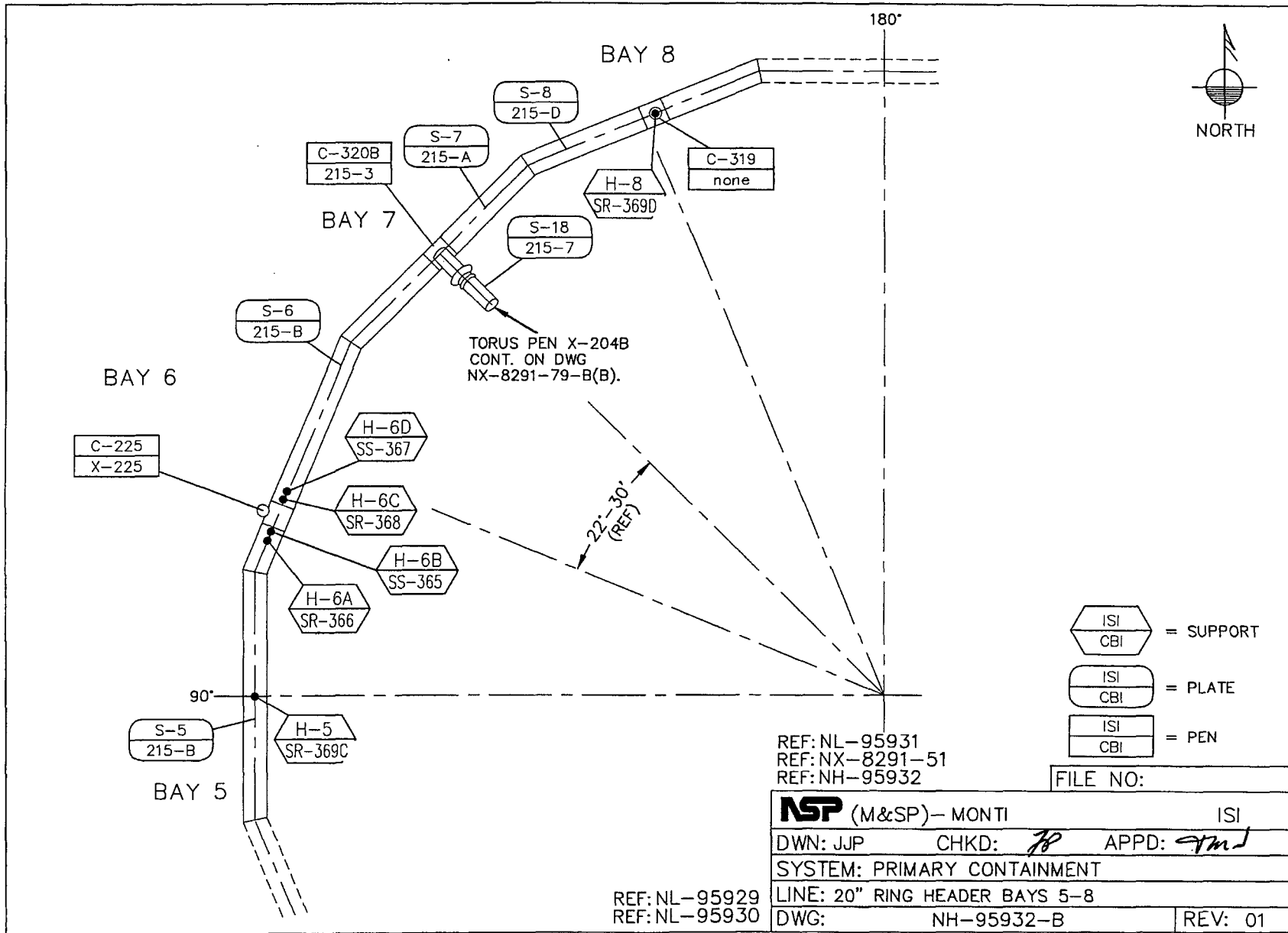
LINE:

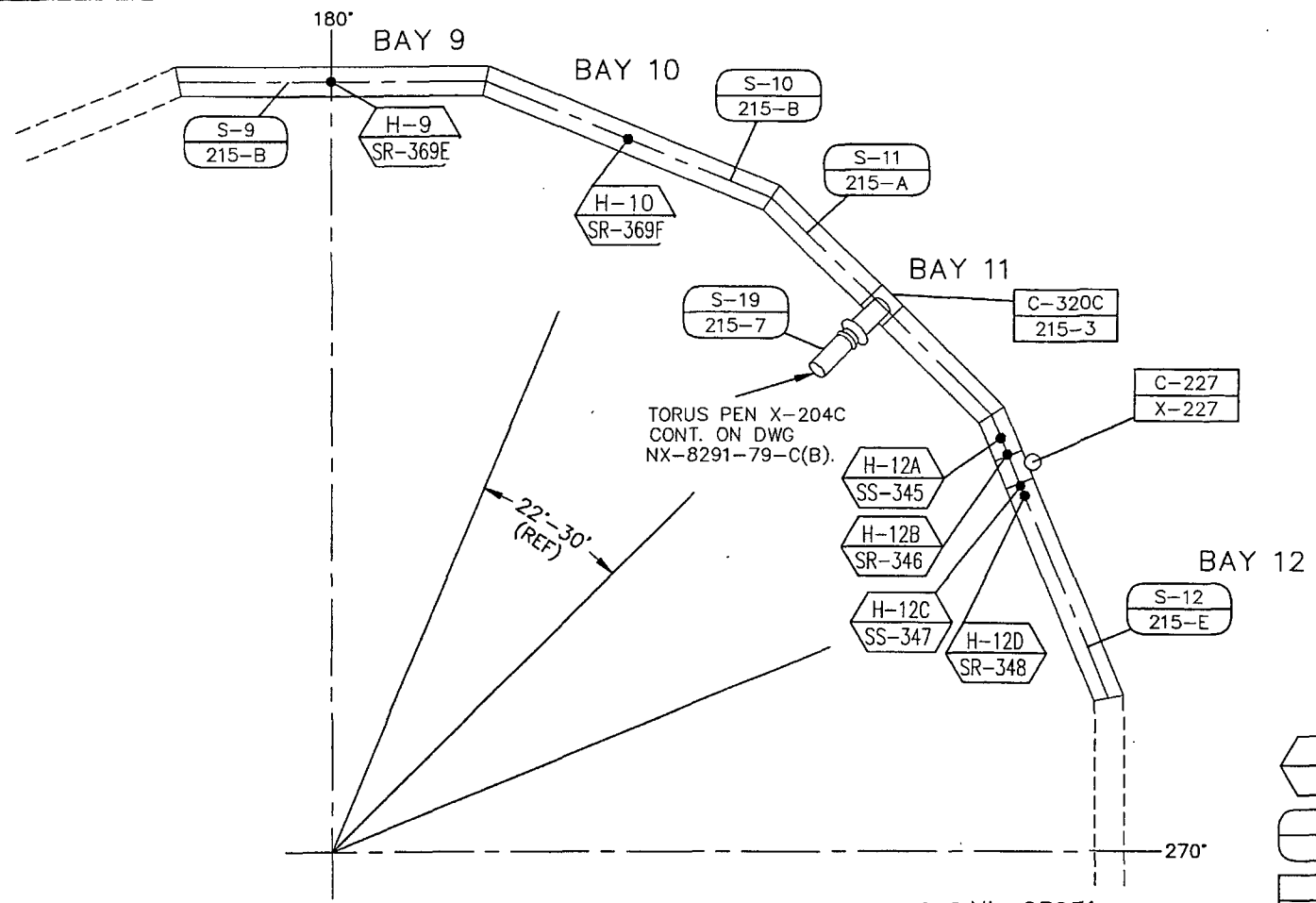
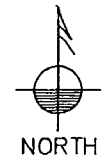
DWG: 1.5.82

REV: 01

NOTE: WORK IN CONJUNCTION WITH DWGS: 1.5.81 ; NX-8291-34-A ; NX-8291-34-B

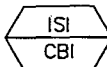
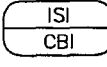
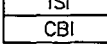






TORUS PEN X-204C
CONT. ON DWG
NX-8291-79-C(B).

22'-30'
(REF)

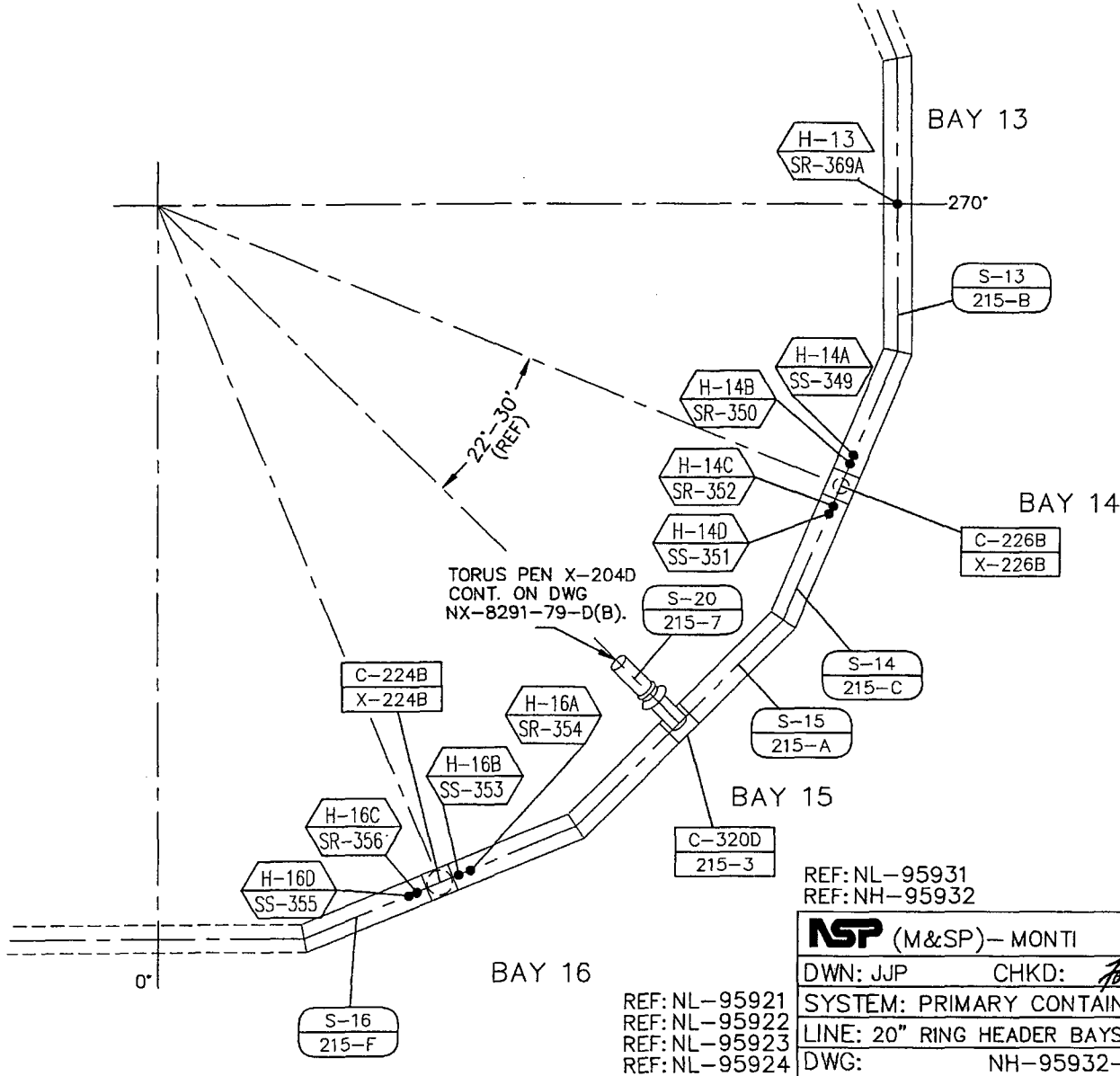
-  = SUPPORT
-  = PLATE
-  = PEN

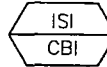
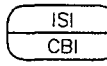
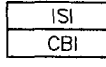
REF: NL-95931
REF: NX-8291-51
REF: NH-95932

FILE NO:

NSP (M&SP) - MONTI		ISI
DWN: JJP	CHKD: <i>JP</i>	APPD: <i>gmd</i>
SYSTEM: PRIMARY CONTAINMENT		
LINE: 20" RING HEADER BAYS 9-12		
DWG: NH-95932-C	REV: 01	

REF: NL-95919
REF: NL-95920



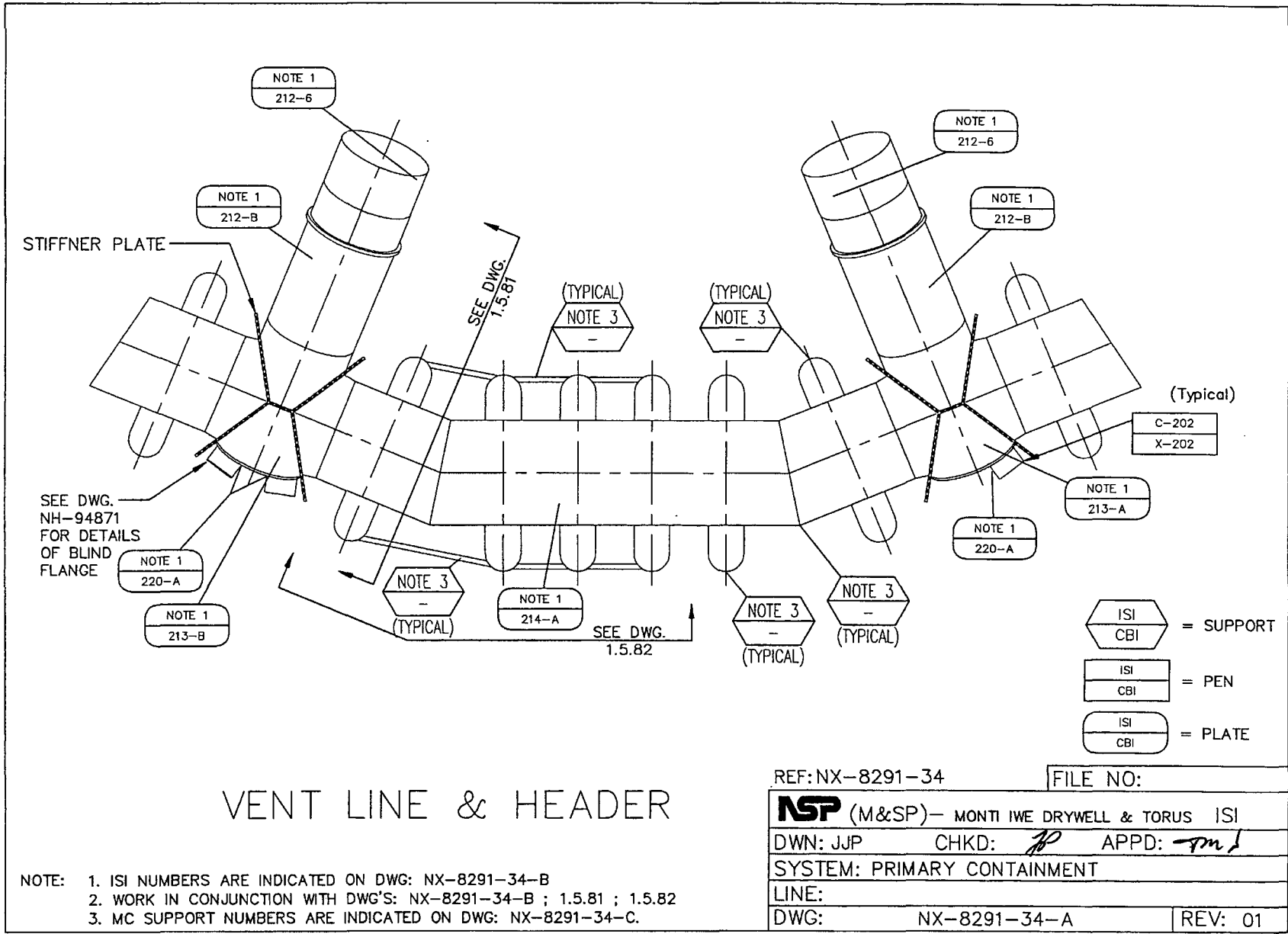
-  = SUPPORT
-  = PLATE
-  = PEN

REF: NL-95931
REF: NH-95932

FILE NO:

NSP (M&SP) - MONTI		ISI
DWN: JJP	CHKD: <i>JJP</i>	APPD: <i>cm</i>
SYSTEM: PRIMARY CONTAINMENT		
LINE: 20" RING HEADER BAYS 13-16		
DWG: NH-95932-D	REV: 01	

REF: NL-95921
REF: NL-95922
REF: NL-95923
REF: NL-95924



VENT LINE & HEADER

- NOTE: 1. ISI NUMBERS ARE INDICATED ON DWG: NX-8291-34-B
 2. WORK IN CONJUNCTION WITH DWG'S: NX-8291-34-B ; 1.5.81 ; 1.5.82
 3. MC SUPPORT NUMBERS ARE INDICATED ON DWG: NX-8291-34-C.

REF: NX-8291-34	FILE NO:
NSP (M&SP) - MONTI IWE DRYWELL & TORUS ISI	
DWN: JJP	CHKD: JP APPD: [signature]
SYSTEM: PRIMARY CONTAINMENT	
LINE:	
DWG: NX-8291-34-A	REV: 01

F:\ISI\Monti\NX-8291-34-A REV 1.DWG

BAY #	DOWNCOMER ISI	DOWNCOMER CBI	VENT HEADER ASS'Y ISI	VENT HEADER ASS'Y CBI	COLUMNS ISI	COLUMNS CBI
1 TO 2	-	-	-	-	H-1	NOTE 3
1	H-1 A,B,C,D	NOTE 1	H-1 E,F	NOTE 2		
2 TO 3					H-2	NOTE 3
2	H-2 A,B	NOTE 1				
3 TO 4					H-3	NOTE 3
3	H-3 A,B,C,D	NOTE 1	H-3 E,F	NOTE 2		
4 TO 5					H-4	NOTE 3
4	H-4 A,B	NOTE 1				
5 TO 6					H-5	NOTE 3
5	H-5 A,B,C,D	NOTE 1	H-5 E,F	NOTE 2		
6 TO 7					H-6	NOTE 3
6	H-6 A,B	NOTE 1				
7 TO 8					H-7	NOTE 3
7	H-7 A,B,C,D	NOTE 1	H-7 E,F	NOTE 2		
8 TO 9					H-8	NOTE 3
8	H-8 A,B	NOTE 1				
9 TO 10					H-9	NOTE 3
9	H-9 A,B,C,D	NOTE 1	H-9 E,F	NOTE 2		
10 TO 11					H-10	NOTE 3
10	H-10 A,B	NOTE 1				
11 TO 12					H-11	NOTE 3
11	H-11 A,B,C,D	NOTE 1	H-11 E,F	NOTE 2		
12 TO 13					H-12	NOTE 3
12	H-12 A,B	NOTE 1				
13 TO 14					H-13	NOTE 3
13	H-13 A,B,C,D	NOTE 1	H-13 E,F	NOTE 2		
14 TO 15					H-14	NOTE 3
14	H-14 A,B	NOTE 1				
15 TO 16					H-15	NOTE 3
15	H-15 A,B,C,D	NOTE 1	H-15 E,F	NOTE 2		
16 TO 1					H-16	NOTE 3
16	H-16 A,B	NOTE 1				

DOWNCOMER, VENT LINE & HEADER RESTRAINTS VENT HEADER SUPPORT COLUMNS

REF: NX-8291-34

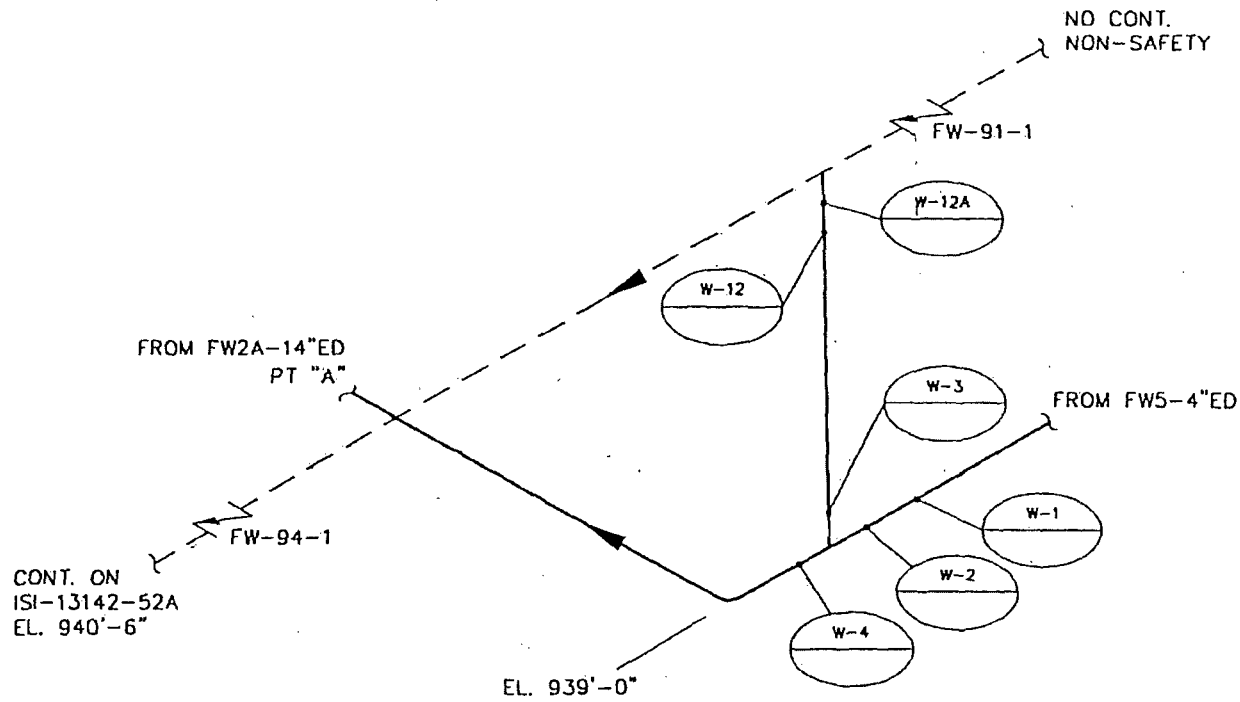
FILE NO:

NSP MONTI IWE DRYWELL & TORUS ISI	
DWN: JJP	CHKD: <i>JJP</i> APPD: <i>sm</i>
SYSTEM: PRIMARY CONTAINMENT	
LINE:	
DWG: NX-8291-34-C	REV: 00

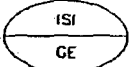
NOTE 1: WORK IN CONJUNCTION WITH DWGS: NX-8291-25, NH-8691.

NOTE 2: WORK IN CONJUNCTION WITH DWGS: NH-94692-1.

NOTE 3: WORK IN CONJUNCTION WITH DWGS: NX-8291-34-A; 1.5.81; 1.5.82; NH-76790.



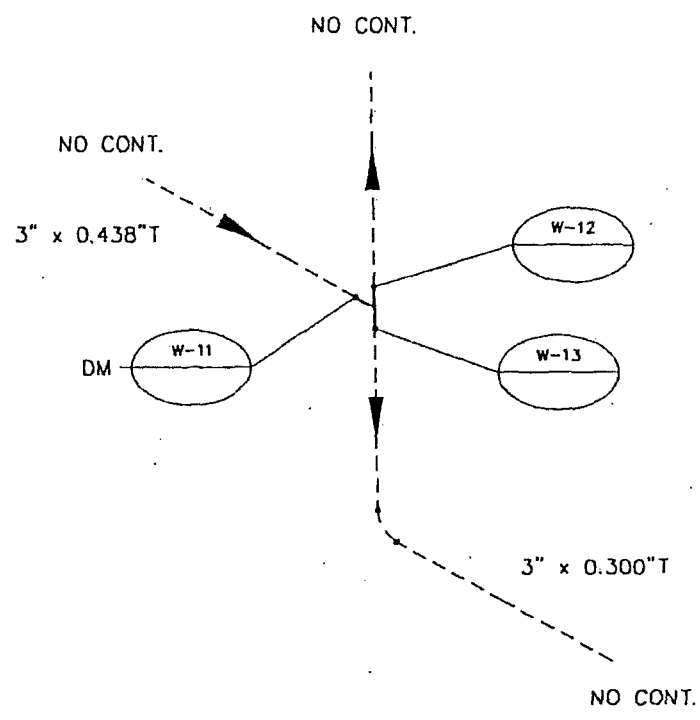
STEAM CHASE

 = WELD NO.

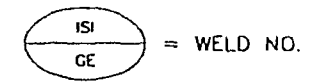
REF: NX-13142-30

NSP MONTICELLO	ISI
DWN: MCWI CHKD: <i>RA</i>	APPD: <i>DSW</i>
SYSTEM: RCIC FEEDWATER	
LINE:	
DWG: NC-ISI-37	REV: 04

ABOVE CRD REBUILD AREA



CONTROL ROD DRIVE TO REACTOR WATER CLEANUP



REF: NX-13142-51

NSP MONTICELLO	ISI
DWN: MCWI	CHKD: <i>RM</i> APPD: <i>DSW</i>
SYSTEM: CRD TO RWCU	
LINE:	
DWG: NC-ISI-51	REV: 02

DM = DISSIMILAR METAL WELD

INSPECTION PLAN AND SCHEDULE TABLE

Periods

- Period 1 (May 1, 2003 to May 31, 2005)
- Shortened due to 1 year extension of 3rd Interval
- Period 2 (June 1, 2005 to May 31, 2009)
- Period 3 (June 1, 2009 to May 31, 2012)

Scheduled Outages

<u>Interval</u> - <u>Period</u> - <u>Outage #</u> - <u>Year</u>
4th 1 1 2003
4th 1 2 2005
4th 2 1 2007
4th 2 2 2009
4th 3 1 2011

Above noted outage dates are subject to change during the interval. Inspection percentages are based on periods in accordance with Program B and Code Case N-598, regardless of currently scheduled outage dates.

Notes:

1. Components may be rescheduled within the same period.
2. Longitudinal welds are examined with the associated circumferential welds.
3. IWB, IWC, and IWD integral attachment weld examinations for Category B-K, C-C, and D-A items will be scheduled at the same time as the IWF component examination, to the extent practical.
4. The Code Category B-G-2 Item B7.80 used in the previous ISI Interval Plan for CRD Bolting inspections was removed from the Section XI 1995 Edition, 1996 Addenda. 10CFR50.55a requires examination of reused CRD Bolting to the 1995 Edition. Therefore, Code Category B-G-2 Item B7.80 has been reinstated in the schedule.
5. The Code Category B-G-2 Item B7.70 valve bolting is only scheduled when a Class 1 valve is required to be disassembled for maintenance or repair. (See Note (2) for Table IWB-2500-1, Categories B-G-2 and B-M-2)
6. The Code Category B-G-2 Item B6.180 pump bolting is only scheduled when a Class 1 pump is required to be disassembled for maintenance or

repair. (See Note (3) for Table IWB-2500-1, Cat. B-G-2 and Note (2) for Table IWB-2500-1, Cat.B-L-2)

7. The letter designations used in the schedule columns are as follows:
- s = scheduled to be examined
 - c = examination was completed for Interval (credit is taken)
 - b = multiple examination or re-occurring examination scheduled during interval
 - B = multiple or re-occurring examination was completed
 - p = item is a partially completed examination (further examination expected)
 - e = expanded scope examination
 - E = expanded scope examination was completed
 - a = additional expanded scope examination
 - A = additional expanded scope examination was completed
 - r = item was rescheduled
 - d = item was deferred until later in the Interval
 - h = examination scheduled for successive periods (follow-up exam)
 - H = examination scheduled for successive periods was completed
 - l = (lower case L) examination was limited (less than code required percentage achievable)

Pressure Testing Notes:

- A. The system leakage tests described by Section XI Category B-P, Item B15.10, B15.50, B.15.60 and B.15.70 are performed each refueling outage in accordance with Monticello procedures 0255-20-IIC-1 and 0255-20-IIC-2, except for the end of Interval test. The boundary is configured with all valves in the position required for normal reactor operation startup, however the VT-2 boundary extends to the 2nd closed valve.

For the ten-year exam at the end of the Interval, 0255-20-IIC-3 is used to configure the boundary instead of 0255-20-IIC-1. For that test, the systems are configured to pressurize all Class 1 pressure retaining components. All Class 1 pressure retaining components, including the Reactor Vessel, piping, pumps, and valves, within the Reactor Coolant Pressure Boundary (RCPB) are included in the examination boundary.

Items B15.10, B15.50, B15.60, and B15.70 are all combined into a single summary number in the Plan under Item B15.10 for the RCPB and are not listed nor scheduled separately. The Class 1 systems included in these tests are Reactor Vessel (including vent and drain), Reactor Vessel Instrumentation, Reactor Recirculation, Main Steam, Feedwater, Core Spray, Residual Heat Removal, High Pressure Coolant Injection, Reactor Core Isolation Cooling, Standby Liquid Control, Reactor Water Cleanup,

Control Rod Drive, and the Excess Flow Check Valves. Boundary Drawings for these systems are 1.5-2, -3, -4, -5, -6, -7, -8, -9, -10, -11, -12, -17, -21, -23, -27

Record information of examination results is maintained by the Plant.

- B. The system leakage tests described by Section XI, Category C-H, Items C7.10, C7.30, C7.50 and C7.70 are performed in accordance with the Monticello procedure identified under the procedure columns of the Examination and Schedule table. All Class 2 pressure retaining components for Code Item numbers C7.10, C7.30, C7.50, and C7.70, including piping, pumps, valves, and vessels, are included within the examination boundary of the applicable procedure. Therefore, on a system basis, the components are all combined into a single summary number in the Plan under Code Item C7.10 for that system and are not listed nor scheduled separately. Record information of examination results is maintained by the Plant.
- C. (reserved - this note not currently in use)
- D. See Code Case N-498-4 (System Leakage Test in lieu of System Hydrostatic Test, Applicable to Class 3 only).
- E. See Code Case N-522 (Testing in accordance with Appendix J Program)
- F. The system leakage tests described by Section XI, Category D-B, Items D2.10, D2.20, D2.30, D2.40, D2.50, D2.60, D2.70, and D2.80 are performed in accordance with the Monticello procedure identified under the procedure columns of the Examination and Schedule table. All Class 3 pressure retaining components for Code Item numbers D2.10, D2.30, D2.50, and D2.70, including piping, pumps, valves, and vessels, are included within the examination boundary of the applicable procedure. Therefore, on a system basis, the components are all combined into a single summary number in the Plan for the System Leakage Test under Code Item D2.10 for that system and are not listed nor scheduled separately. Likewise, for Code Item numbers D2.20, D2.40, D2.60, and D2.80, they are combined under D2.20 for the System Hydrostatic Test.

Record information of examination results is maintained by the Plant.

NDE Notes:

- AA. Reactor Pressure Closure Studs, Item B6.30, will be examined when removed near the end of the Interval.
- BB. (reserved - this note not currently in use)
- CC. Dissimilar metal weld.
- DD. Encapsulated weld.
- EE. The internal surface visual examination is done during maintenance:
Atwood Morrill Globe Valve - Main Steam: VT-3 examination of one valve.
- FF. The internal surface visual examination is done during maintenance:
Target Rock Relief Valves - Main Steam: VT-3 examination of one valve.
- GG. The internal surface visual examination is done during maintenance:
Anchor Check Valves - Feedwater: VT-3 examination of one valve.
- HH. The internal surface visual examination is done during maintenance:
Anchor Gate Valves - Various Systems: VT-3 examination of one valve in each size.
- II. The internal surface visual examination is done during maintenance:
Chapman Crane Gate Valves - Recirculation System: VT-3 examination of one valve.
- JJ. Welds in core spray and containment spray were added at the end of the 2nd Interval per EGG-MS-8969.
- KK. (reserved - this note not currently in use)
- LL. (reserved - this note not currently in use)
- MM. Augmented examination for MEB 3-1 as amended by Generic Letter 87-11, Relaxation in Arbitrary Intermediate Pipe Rupture Requirements (HELB Superpipe - requires 100% volumetric examination of welds in accordance with ASME Section IWA-2400 requirements once per 10 years).
- NN. (reserved - this note not currently in use)

Damage Mechanism / Risk Categories for Risk-Informed ISI			
Item Number	Description	Item Number	Description
R1.11-1	Elements Subject to Thermal Fatigue Category 1 – High Risk	R1.12-1	Elements Subject to High Cycle Mechanical Fatigue Category 1 – High Risk
R1.11-2	Elements Subject to Thermal Fatigue Category 2 – High Risk	R1.12-2	Elements Subject to High Cycle Mechanical Fatigue Category 2 – High Risk
R1.11-3	Elements Subject to Thermal Fatigue Category 3 – High Risk	R1.12-3	Elements Subject to High Cycle Mechanical Fatigue Category 3 – High Risk
R1.11-4	Elements Subject to Thermal Fatigue Category 4 – Medium Risk	R1.12-4	Elements Subject to High Cycle Mechanical Fatigue Category 4 – Medium Risk
R1.11-5	Elements Subject to Thermal Fatigue Category 5a or b – Medium Risk	R1.12-5	Elements Subject to High Cycle Mechanical Fatigue Category 5a or b – Medium Risk
R1.11-6	Elements Subject to Thermal Fatigue Category 6a or b – Low Risk	R1.12-6	Elements Subject to High Cycle Mechanical Fatigue Category 6a or b – Low Risk
R1.11-7	Elements Subject to Thermal Fatigue Category 7a thru d – Low Risk	R1.12-7	Elements Subject to High Cycle Mechanical Fatigue Category 7a thru d – Low Risk

R1.13-1	Elements Subject to Erosion Cavitation Category 1 – High Risk	R1.14-1	Elements Subject to Crevice Corrosion Cracking Category 1 – High Risk
R1.13-2	Elements Subject to Erosion Cavitation Category 2 – High Risk	R1.14-2	Elements Subject to Crevice Corrosion Cracking Category 2 – High Risk
R1.13-3	Elements Subject to Erosion Cavitation Category 3 – High Risk	R1.14-3	Elements Subject to Crevice Corrosion Cracking Category 3 – High Risk
R1.13-4	Elements Subject to Erosion Cavitation Category 4 – Medium Risk	R1.14-4	Elements Subject to Crevice Corrosion Cracking Category 4 – Medium Risk
R1.13-5	Elements Subject to Erosion Cavitation Category 5a or b – Medium Risk	R1.14-5	Elements Subject to Crevice Corrosion Cracking Category 5a or b – Medium Risk
R1.13-6	Elements Subject to Erosion Cavitation Category 6a or b – Low Risk	R1.14-6	Elements Subject to Crevice Corrosion Cracking Category 6a or b – Low Risk
R1.13-7	Elements Subject to Erosion Cavitation Category 7a thru d – Low Risk	R1.14-7	Elements Subject to Crevice Corrosion Cracking Category 7a thru d – Low Risk

Damage Mechanism / Risk Categories for Risk-Informed ISI			
Item Number	Description	Item Number	Description
R1.15-1	Elements Subject to PWSCC Category 1 – High Risk	R1.16-1	Elements Subject to IGSCC or TGSCC Category 1 – High Risk
R1.15-2	Elements Subject to PWSCC Category 2 – High Risk	R1.16-2	Elements Subject to IGSCC or TGSCC Category 2 – High Risk
R1.15-3	Elements Subject to PWSCC Category 3 – High Risk	R1.16-3	Elements Subject to IGSCC or TGSCC Category 3 – High Risk
R1.15-4	Elements Subject to PWSCC Category 4 – Medium Risk	R1.16-4	Elements Subject to IGSCC or TGSCC Category 4 – Medium Risk
R1.15-5	Elements Subject to PWSCC Category 5a or b – Medium Risk	R1.16-5	Elements Subject to IGSCC or TGSCC Category 5a or b – Medium Risk
R1.15-6	Elements Subject to PWSCC Category 6a or b – Low Risk	R1.16-6	Elements Subject to IGSCC or TGSCC Category 6a or b – Low Risk
R1.15-7	Elements Subject to PWSCC Category 7a thru d – Low Risk	R1.16-7	Elements Subject to IGSCC or TGSCC Category 7a thru d – Low Risk

R1.17-1	Elements Subject to MIC or Pitting Category 1 – High Risk	R1.18-1	Elements Subject to FAC Category 1 – High Risk
R1.17-2	Elements Subject to MIC or Pitting Category 2 – High Risk	R1.18-2	Elements Subject to FAC Category 2 – High Risk
R1.17-3	Elements Subject to MIC or Pitting Category 3 – High Risk	R1.18-3	Elements Subject to FAC Category 3 – High Risk
R1.17-4	Elements Subject to MIC or Pitting Category 4 – Medium Risk	R1.18-4	Elements Subject to FAC Category 4 – Medium Risk
R1.17-5	Elements Subject to MIC or Pitting Category 5a or b – Medium Risk	R1.18-5	Elements Subject to FAC Category 5a or b – Medium Risk
R1.17-6	Elements Subject to MIC or Pitting Category 6a or b – Low Risk	R1.18-6	Elements Subject to FAC Category 6a or b – Low Risk
R1.17-7	Elements Subject to MIC or Pitting Category 7a thru d – Low Risk	R1.18-7	Elements Subject to FAC Category 7a thru d – Low Risk

Damage Mechanism / Risk Categories for Risk-Informed ISI			
Item Number	Description	Item Number	Description
R1.19-1	Elements Subject to ECSCC Category 1 – High Risk	R1.20-1	Elements Not Subject to a Damage Mechanism Category 1 – High Risk
R1.19-2	Elements Subject to ECSCC Category 2 – High Risk	R1.20-2	Elements Not Subject to a Damage Mechanism Category 2 – High Risk
R1.19-3	Elements Subject to ECSCC Category 3 – High Risk	R1.20-3	Elements Not Subject to a Damage Mechanism Category 3 – High Risk
R1.19-4	Elements Subject to ECSCC Category 4 – Medium Risk	R1.20-4	Elements Not Subject to a Damage Mechanism Category 4 – Medium Risk
R1.19-5	Elements Subject to ECSCC Category 5a or b – Medium Risk	R1.20-5	Elements Not Subject to a Damage Mechanism Category 5a or b – Medium Risk
R1.19-6	Elements Subject to ECSCC Category 6a or b – Low Risk	R1.20-6	Elements Not Subject to a Damage Mechanism Category 6a or b – Low Risk
R1.19-7	Elements Subject to ECSCC Category 7a thru d – Low Risk	R1.20-7	Elements Not Subject to a Damage Mechanism Category 7a thru d – Low Risk

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
B-A	102637		ISI Fig 4	ISI	-	-	-	-	-	-	-	-
B1.11	VCBA-2		Circ Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102638		ISI Fig 4	ISI	-	B	-	-	-	-	-	-
B1.11	VCBB-1	M1_I4-P1_RF22 / ISI / UT / / PEI-	ISI Fig 4	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.03.15 M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-406	B. Head/Vesse	OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102639		ISI Fig 4	ISI	-	-	-	-	-	-	-	-
B1.11	VCBB-3		Circ Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102640		ISI Fig 4	ISI	-	-	-	-	-	-	-	-
B1.11	VCBB-4		Circ Weld @ N4C	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	105005		ISI Fig 4	ISI	-	-	-	-	-	-	-	-
B1.11	VCBB-4		Circ Weld @ N4B	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102642		ISI Fig 4	ISI	-	-	-	-	-	-	s	-
B1.12	VLAA-1	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102643		ISI Fig 4	ISI	-	-	-	p	-	-	s	-
B1.12	VLAA-2	M1_I4-P2_RF23 / ISI / UT / / PEI-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.03.15 M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102644		ISI Fig 4	ISI	-	-	-	-	-	-	s	-
B1.12	VLBA-1	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102645		ISI Fig 4	ISI	-	-	-	-	-	-	s	-
B1.12	VLBA-2	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
B-A	102646		ISI Fig 4	ISI	-	-	-	-	s	-	-	-
B1.12	VLCB-1	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102647		ISI Fig 4	ISI	-	-	-	-	s	-	-	-
B1.12	VLCB-2	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102648		ISI Fig 4	ISI	-	-	-	-	s	-	-	-
B1.12	VLDB-1	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102649		ISI Fig 4	ISI	-	-	-	-	s	-	-	-
B1.12	VLDB-2	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Long Seam	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102380		ISI Fig 1	ISI	-	-	-	-	s	-	-	-
B1.21	W-1	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	T.H. Circ. Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102627		ISI Fig 3	ISI	-	-	-	-	s	-	-	-
B1.21	W-3	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Circ Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102381		ISI Fig 1	ISI	-	-	-	-	s	-	-	-
B1.22	W-2	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	T.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102382		ISI Fig 1	ISI	-	-	-	-	s	-	-	-
B1.22	W-3	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	T.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102383		ISI Fig 1	ISI	-	-	-	-	s	-	-	-
B1.22	W-4	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	T.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1			Period 2		Period 3			
				RF21_2003	RF22_2005		RF23_2007	RF24_2009	RF25_2011			
B-A	102384		ISI Fig 1	ISI	-	-	-	-	s	-	-	-
B1.22	W-5	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	T.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102385		ISI Fig 1	ISI	-	-	-	-	s	-	-	-
B1.22	W-6	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	T.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102386		ISI Fig 1	ISI	-	-	-	-	s	-	-	-
B1.22	W-7	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	T.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102625		ISI Fig 3	ISI	-	-	-	-	s	-	-	-
B1.22	W-1	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Dollar PI L.S.	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102626		ISI Fig 3	ISI	-	-	-	-	s	-	-	-
B1.22	W-2	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Dollar PI L.S.	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102628		ISI Fig 3	ISI	-	-	-	-	s	-	-	-
B1.22	W-4	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102629		ISI Fig 3	ISI	-	-	-	-	s	-	-	-
B1.22	W-5	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102630		ISI Fig 3	ISI	-	-	-	-	s	-	-	-
B1.22	W-6	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-A	102631		ISI Fig 3	ISI	-	-	-	-	s	-	-	-
B1.22	W-7	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-406		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-A	102632		ISI Fig 3	ISI	-	-	-	-	s
B1.22	W-8	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-
1	Reactor Vesce	NDE-406		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-A	102633		ISI Fig 3	ISI	-	-	-	-	s
B1.22	W-9	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-
1	Reactor Vesce	NDE-406		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-A	102634		ISI Fig 3	ISI	-	-	-	-	s
B1.22	W-10	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-
1	Reactor Vesce	NDE-406		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-A	102635		ISI Fig 3	ISI	-	-	-	-	s
B1.22	W-11	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	B.H. Meridional Weld	AUG	-	-	-	-	-
1	Reactor Vesce	NDE-406		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-A	102641		ISI Fig 4	ISI	r	d	-	-	s
B1.30	VCBC-5	M1_I4-P3_RF25 / ISI / UT / / UT-	Vesce/Flange Weld	AUG	-	-	-	-	-
1	Reactor Vesce	Vendor	N-623,N-623,N-623,N-623	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-A	102387	M1_I4-P3_RF25 / ISI / MT / / PEI-	ISI Fig 1	ISI	r	d	-	-	s
B1.40	W-8	02.02.01	T.H. Flange Weld	AUG	-	-	-	-	-
1	Reactor Vesce	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N-623,N-623,N-623,N-623,N-623	OWN	-	-	-	-	-
		NDE-406		PRE	-	-	-	-	-
B-D	102374		ISI Fig 1	ISI	-	-	-	-	-
B3.100	N- 6A IR	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	N- 6A Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesce	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102376		ISI Fig 1	ISI	-	-	-	-	-
B3.100	N- 6B IR	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 6B Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesce	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102378		ISI Fig 1	ISI	-	-	-	-	-
B3.100	N- 7 IR	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 7 Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesce	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-D	102622		ISI Fig 3	ISI	-	-	-	-	-
B3.100	N-10 IR	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N-10 Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102651		ISI Fig 5	ISI	-	c	-	-	-
B3.100	N- 1A IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 1A Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102653		ISI Fig 5	ISI	-	-	-	-	s
B3.100	N- 1B IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 1B Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102655		ISI Fig 5	ISI	-	-	-	-	r
B3.100	N- 2A IR	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 2A Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102657		ISI Fig 5	ISI	-	-	-	-	c
B3.100	N- 2B IR	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	N- 2B Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102659		ISI Fig 5	ISI	-	-	-	-	s
B3.100	N- 2C IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 2C Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102661		ISI Fig 5	ISI	r	c	-	-	-
B3.100	N- 2D IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 2D Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102663		ISI Fig 5	ISI	r	c	-	-	-
B3.100	N- 2E IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 2E Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102665		ISI Fig 5	ISI	-	-	-	-	s
B3.100	N- 2F IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 2F Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-D	102667		ISI Fig 5	ISI	-	-	-	-
B3.100	N- 2G IR	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	N- 2G Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102669		ISI Fig 5	ISI	-	-	-	-
B3.100	N- 2H IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 2H Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102671		ISI Fig 5	ISI	r	c	-	-
B3.100	N- 2J IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 2J Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102673		ISI Fig 5	ISI	-	-	-	-
B3.100	N- 2K IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 2K Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102675		ISI Fig 5	ISI	r	c	-	-
B3.100	N- 3A IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 3A Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102677		ISI Fig 5	ISI	-	-	-	-
B3.100	N- 3B IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 3B Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102679		ISI Fig 5	ISI	-	-	-	-
B3.100	N- 3C IR	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 3C Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102681		ISI Fig 5	ISI	-	-	-	-
B3.100	N- 3D IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 3D Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-
				PRE	-	-	-	-
B-D	102683		ISI Fig 5	ISI	-	-	-	-
B3.100	N- 4A IR	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	N- 4A Inner Radius	AUG	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-
				PRE	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-D	102685		ISI Fig 5	ISI	-	-	-	-	-
B3.100	N- 4B IR	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 4B Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102687		ISI Fig 5	ISI	r	c	-	-	-
B3.100	N- 4C IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 4C Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102689		ISI Fig 5	ISI	-	-	-	-	s
B3.100	N- 4D IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 4D Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102691		ISI Fig 5	ISI	-	-	-	-	s
B3.100	N- 5A IR	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 5A Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102693		ISI Fig 5	ISI	r	c	-	-	-
B3.100	N- 5B IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 5B Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102695		ISI Fig 5	ISI	r	c	-	-	-
B3.100	N- 8A IR	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 8A Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.17		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102697		ISI Fig 5	ISI	-	-	-	-	r
B3.100	N- 8B IR	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 8B Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102699		ISI Fig 5	ISI	-	-	-	-	c
B3.100	N- 9 IR	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	N- 9 Inner Radius	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-UT-03		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102375		ISI Fig 1	ISI	-	-	-	-	c
B3.90	N- 6A NV	M1_I4-P2_RF23 / ISI / UT / / PEI-	N- 6A Noz/Head Weld	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-D	102377		ISI Fig 1	ISI	-	-	-	-	r
B3.90	N- 6B NV	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 6B Noz/Head Weld	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1,N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102379		ISI Fig 1	ISI	-	-	-	-	r
B3.90	N- 7 NV	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 7 Noz/Head Weld	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102623		ISI Fig 3	ISI	-	-	-	-	r
B3.90	N-10 NV	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N-10 Noz/Vsl Weld	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1,N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102652		ISI Fig 5	ISI	r	c	-	-	-
B3.90	N- 1A NV	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 1A Vsl/Noz Weld	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1,N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102654		ISI Fig 5	ISI	-	-	-	-	s
B3.90	N- 1B NV	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 1B Vsl/Noz Weld	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102656		ISI Fig 5	ISI	-	-	-	-	r
B3.90	N- 2A NV	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 2A Noz/Vsl Weld	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1,N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102658		ISI Fig 5	ISI	-	-	-	-	r
B3.90	N- 2B NV	M1_I4-P2_RF23 / ISI / UT / / PEI-	N- 2B Noz / Vsl Weld	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1,N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102660		ISI Fig 5	ISI	-	-	-	-	s
B3.90	N- 2C NV	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 2C Noz/Vsl Weld	AUG	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-D	102662		ISI Fig 5	ISI	r	c	-	-	-
B3.90	N- 2D NV	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 2D Noz/Vsl Weld	AUG	-	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1,N-613-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-D B3.90 1	102664 N- 2E NV Reactor Vesse	M1_I4-P1_RF22 / ISI / UT / / PEI- 02.03.15	ISI Fig 5 N- 2E Noz/Vsl Weld N-613-1,N-613-1	ISI AUG OWN PRE	r c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-D B3.90 1	102666 N- 2F NV Reactor Vesse	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-406	ISI Fig 5 N- 2F Noz/Vsl Weld N-613-1	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
B-D B3.90 1	102668 N- 2G NV Reactor Vesse	M1_I4-P2_RF23 / ISI / UT / / PEI- 02.03.15	ISI Fig 5 N- 2G Noz/Vsl Weld N-613-1,N-613-1	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-D B3.90 1	102670 N- 2H NV Reactor Vesse	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-406	ISI Fig 5 N- 2H Noz/Vsl Weld N-613-1,N-613-1	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
B-D B3.90 1	102672 N- 2J NV Reactor Vesse	M1_I4-P1_RF22 / ISI / UT / / PEI- 02.03.15	ISI Fig 5 N- 2J Noz/Vsl Weld N-613-1,N-613-1	ISI AUG OWN PRE	r c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-D B3.90 1	102674 N- 2K NV Reactor Vesse	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-406	ISI Fig 5 N- 2K Noz/Vsl Weld N-613-1,N-613-1	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
B-D B3.90 1	102676 N- 3A NV Reactor Vesse	M1_I4-P1_RF22 / ISI / UT / / PEI- 02.03.15	ISI Fig 5 N- 3A Vsl/Noz Weld N-613-1,N-613-1	ISI AUG OWN PRE	r c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-D B3.90 1	102678 N- 3B NV Reactor Vesse	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-406	ISI Fig 5 N- 3B Vsl/Noz Weld N-613-1	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
B-D B3.90 1	102680 N- 3C NV Reactor Vesse	M1_I4-P2_RF24 / ISI / UT / / FP-PE- NDE-406 M1_I4-P2_RF24 / ISI / UT / / PEI- 02.03.16	ISI Fig 5 N- 3C Noz/Vsl Weld N-613-1	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

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					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-D	102682		ISI Fig 5	ISI	-	-	-	-	-	-
B3.90	N- 3D NV	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 3D Vsl/Noz Weld	AUG	-	-	-	-	-	s
1	Reactor Vesse	NDE-406	N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102684		ISI Fig 5	ISI	-	-	-	-	-	-
B3.90	N- 4A NV	M1_I4-P2_RF23 / ISI / UT / / PEI-	N- 4A Noz/Vsl Weld	AUG	-	-	c	-	-	-
1	Reactor Vesse	02.03.15	N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102686		ISI Fig 5	ISI	-	-	-	-	-	-
B3.90	N- 4B NV	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 4B Noz/Vsl Weld	AUG	-	-	-	c	-	-
1	Reactor Vesse	NDE-406	N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102688		ISI Fig 5	ISI	r	c	-	-	-	-
B3.90	N- 4C NV	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 4C Noz/Vsl Weld	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1,N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102690		ISI Fig 5	ISI	-	-	-	-	-	s
B3.90	N- 4D NV	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 4D Noz/Vsl Weld	AUG	-	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102692		ISI Fig 5	ISI	-	-	-	-	-	s
B3.90	N- 5A NV	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N- 5A Noz/Vsl Weld	AUG	-	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102694		ISI Fig 5	ISI	r	c	-	-	-	-
B3.90	N- 5B NV	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 5B Noz/Vsl Weld	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1,N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102696		ISI Fig 5	ISI	r	c	-	-	-	-
B3.90	N- 8A NV	M1_I4-P1_RF22 / ISI / UT / / PEI-	N- 8A Noz/Vsl Weld	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1,N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-D	102698		ISI Fig 5	ISI	-	-	-	-	-	r
B3.90	N- 8B NV	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	N- 8B Vsl/Noz Weld	AUG	-	-	-	-	-	-
1	Reactor Vesse	NDE-406	N-613-1,N-613-1	OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-D	102700		ISI Fig 5	ISI	-	-	-	-
B3.90	N- 9 NV	M1_I4-P2_RF23 / ISI / UT / / PEI-	N- 9 Ves/Noz Weld	AUG	-	-	-	-
1	Reactor Vesse	02.03.15	N-613-1	OWN	-	-	-	-
				PRE	-	-	-	-
B-G-1	102710		ISI Fig 6	ISI	r	d	-	-
B6.10	Nuts	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	64 RPV Nuts	AUG	-	-	-	-
1	Reactor Vesse	NDE-510		OWN	-	-	-	-
				PRE	-	-	-	-
B-G-1	101971		ISI-97005-A	ISI	r	c	-	-
B6.180	B- 2		RC Pump A Studs, Nuts	AUG	-	-	-	-
1	Recirculation A		N-307-2,N-307-2	OWN	-	-	-	-
				PRE	-	c	-	-
B-G-1	102076		ISI-97006-A	ISI	r	r	-	-
B6.180	B- 2	M1_I4-P2_RF23 / ISI / UT / / PEI-	RC Pump B Studs, Nuts	AUG	-	-	-	-
1	Recirculation B	02.03.06	N-307-2,N-307-2,N-307-2	OWN	-	-	-	-
		M1_I4-P2_RF23 / ISI / VT / / PEI-						
		02.05.01						
		M1_I4-P2_RF23 / PSI / VT / / PEI-						
		02.05.01		PRE	-	-	-	-
B-G-1	101992		ISI-97005-A	ISI	-	c	-	-
B6.190	P200-A	M1_I4-P1_RF22 / ISI / VT / / PEI-	Flange Surface	AUG	-	-	-	-
1	Recirculation A	02.05.01		OWN	-	-	-	-
				PRE	-	-	-	-
B-G-1	107184		ISI-97006-A	ISI	-	-	-	c
B6.190	P200-B	M1_I4-P2_RF23 / ISI / VT / / PEI-	Flange Surface	AUG	-	-	-	-
1	Recirculation B	02.05.01		OWN	-	-	-	-
				PRE	-	-	-	-
B-G-1	102711		ISI Fig 6	ISI	r	d	-	-
B6.20	Studs		64 RPV Studs, In-Place	AUG	-	-	-	-
1	Reactor Vessel	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	N-307-2,N-307-2,N-307-2,N-307-2,N-307-2	OWN	-	-	-	-
		NDE-408		PRE	-	-	-	-
B-G-1	102712		ISI Fig 6	ISI	r	r	-	-
B6.30	Studs		64 RPV Studs, Removec	AUG	-	-	-	-
1	Reactor Vessel	M1_I4-P3_RF25 / ISI / / /	N-307-2,N-307-2,N-307-2,N-307-2,N-307-2	OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-1 B6.40 1	102709 Threads in Flange Reactor Vesse	M1_I4-P3_RF25 / ISI / UT / / PEI- 02.03.07	ISI Fig 6 Threads in Flange	ISI AUG OWN PRE	r d - - - - - - - - - - - - - -	r d - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	- - - -
B-G-1 B6.50 1	102708 Bushings Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI Fig 6 64 Bushings	ISI AUG OWN PRE	r d - - - - - - - - - - - - - -	r d - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	- - - -
B-G-1 B6.50 1	102713 Washers Reactor Vesse	M1_I4-P2_RF24 / PSI / VT / VT-1 / FP- PE-NDE-510 M1_I4-P3_RF25 / ISI / VT / VT-1 / FP- PE-NDE-510	ISI Fig 6 64 Washers	ISI AUG OWN PRE	r d - - - - - - - - - - - - - -	r d - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	- - - -
B-G-2 B7.10 1	100395 B- 2 Rx Ves Head Cooling	M1_I4-P1_RF21 / AUG / PT / / PEI- 02.01.01 M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01 M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01 M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI Fig 1 N-6A Flange Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - p - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	- - - -
B-G-2 B7.10 1	102373 B- 1 Top Head	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.01	ISI Fig 1 N-6B Flange Bolts	ISI AUG OWN PRE	r c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - -
B-G-2 B7.50 1	100566 B- 1 Main Steam A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01	ISI-13142-33-A Flange Bolts @ W-12	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - -
B-G-2 B7.50 1	100567 B- 2 Main Steam A	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.01	ISI-13142-33-A Flange Bolts @ W-14	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.50 1	100568 B- 3 Main Steam A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01 M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.01	ISI-13142-33-A Flange Bolts @ W-16	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.50 1	100569 B- 4 Main Steam A	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-13142-33-A Flange Bolts @ W-18	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -	- - - -
B-G-2 B7.50 1	100570 B- 5 Main Steam A	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-13142-33-A Flange Bolts @ W-20	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -	- - - -
B-G-2 B7.50 1	100571 B- 6 Main Steam A	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-13142-33-A Flange Bolts @ W-22	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -	- - - -
B-G-2 B7.50 1	100621 B- 1 Main Steam B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.01	ISI-13142-34-A Flange Bolts @ W-13	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.50 1	100622 B- 2 Main Steam B	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.01	ISI-13142-34-A Flange Bolts @ W-15	ISI AUG OWN PRE	- - - -	c - - -	- - - -	- - - -	- - - -
B-G-2 B7.50 1	100623 B- 3 Main Steam B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.01	ISI-13142-34-A Flange Bolts @ W-16	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.50 1	100674 B- 3 Main Steam C	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-510	ISI-13142-35-A Flange Bolts @ W-16	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.50 1	100675 B- 4 Main Steam C	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01	ISI-13142-35-A Flange Bolts @ W-18	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.50 1	100676 B- 5 Main Steam C	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01	ISI-13142-35-A Flange Bolts @ W-14	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.50 1	100725 B- 1 Main Steam C	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01	ISI-13142-36-A Flange Bolts @ W-13	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.50 1	100726 B- 2 Main Steam C	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-510	ISI-13142-36-A Flange Bolts @ W-15	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -	- - - -
B-G-2 B7.50 1	100727 B- 3 Main Steam C	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01 M1_I4-P2_RF24 / ISI / VT / VT-1 / FP- PE-NDE-510 M1_I4-P2_RF24 / ISI / VT / VT-1 / FP- PE-NDE-510	ISI-13142-36-A Flange Bolts @ W-17	ISI AUG OWN PRE	c - - -	- - - -	- B - -	- - - -	- - - -
B-G-2 B7.50 1	100728 B- 4 Main Steam C	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-510	ISI-13142-36-A Flange Bolts @ W-19	ISI AUG OWN PRE	- - - -	- - - -	- c - -	- - - -	- - - -
B-G-2 B7.50 1	100729 B- 5 Main Steam C	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-13142-36-A Flange Bolts @ W-21	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	s - - -
B-G-2 B7.50 1	100730 B- 6 Main Steam C	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-13142-36-A Flange Bolts @ W-23	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	s - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.50 1	101392 B- 1 Recirc A Drain Line	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-74209-1A Flange Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-G-2 B7.50 1	101408 B- 1 Recirc B Drain Line	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.01	ISI-74210-1A Flange Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c r - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.50 1	101491 B- 1 Head Vent	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.01 M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-510	ISI-782A-A Flange Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c B - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.50 1	101492 B- 2 Head Vent	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.01	ISI-782A-A Flange Bolts	ISI AUG OWN PRE	r c - - - - - - - - c B - -	- - - - - - - - - - - - B - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.50 1	101616 B- 1 Bottom Head Drair	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-821A Flange Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-G-2 B7.50 1	101850 B- 3 RHR Return A	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-510	ISI-97003-A Flange Bolts @ W 11	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.50 1	101851 B- 4 RHR Return A	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-97003-A Flange Bolts @ W 22	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-G-2 B7.50 1	101891 B- 2 RHR Suction A	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-510	ISI-97003-B Flange Bolts @ W-9	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.50 1	101892 B- 3 RHR Suction A	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-97003-B Flange Bolts @ W-14	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-G-2 B7.50 1	101930 B- 3 RHR Return B	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-510	ISI-97004-A Flange Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.50 1	101931 B- 4 RHR Return B	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-510	ISI-97004-A Flange Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-G-2 B7.50 1	101972 B- 3 Recirculation A	M1_I4-P2_RF24 / ISI / VT / VT-1 / FP- PE-NDE-510	ISI-97005-A Flange Bolts @ W-17	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	r - - - - - - - - - - - -
B-G-2 B7.50 1	102077 B- 3 Recirculation B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01	ISI-97006-A Flange Bolts @ W-16	ISI AUG OWN PRE	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100424 B- 1 Core Spray B		ISI-13142-26-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100425 B- 2 Core Spray B		ISI-13142-26-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100426 B- 3 Core Spray B		ISI-13142-26-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100492 B- 1 Core Spray A		ISI-13142-31-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.70 1	100493 B- 2 Core Spray A		ISI-13142-31-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100494 B- 3 Core Spray A		ISI-13142-31-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100572 B- 7 Main Steam A	M1_I4-P1_RF21 / PSI / VT / VT-1 / PEI-02.05.01	ISI-13142-33-A Valve Bolts	ISI AUG OWN PRE	c - - - - - - - - - - - p - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100573 B- 8 Main Steam A		ISI-13142-33-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100574 B- 9 Main Steam A	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.01	ISI-13142-33-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100575 B-10 Main Steam A	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.01	ISI-13142-33-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - p c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100624 B- 4 Main Steam B		ISI-13142-34-A Valve Bolts @ W-26	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	100625 B- 5 Main Steam B		ISI-13142-34-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.70 1	100626 B- 6 Main Steam B	M1_I4-P1_RF21 / PSI / VT / / PEI-02.05.01 M1_I4-P1_RF22 / PSI / VT / / PEI-02.05.01 M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.01	ISI-13142-34-A Valve Bolts	ISI AUG OWN PRE	- - - c	- - - B	- - - B	- - - -	- - - -	- - - -
B-G-2 B7.70 1	100629 B- 7 Main Steam B	M1_I4-P1_RF21 / PSI / VT / / PEI-02.05.01 M1_I4-P1_RF22 / PSI / VT / / PEI-02.05.01 M1_I4-P2_RF23 / PSI / VT / VT-1 / PEI-02.05.01 M1_I4-P3_RF25 / ISI / VT / VT-1 / FP-PE-NDE-510	ISI-13142-34-A Valve Bolts	ISI AUG OWN PRE	- - - c	- - - B	- - - B	- - - -	- - - s	- - - -
B-G-2 B7.70 1	100672 B- 1 Main Steam C		ISI-13142-35-A Valve Bolts	ISI AUG OWN PRE	- - - c	c - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	100673 B- 2 Main Steam C		ISI-13142-35-A Valve Bolts	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	100677 B- 6 Main Steam C		ISI-13142-35-A Valve Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	100679 B- 7 Main Steam C		ISI-13142-35-A Valve Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	100731 B- 7 Main Steam C		ISI-13142-36-A Valve Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.70 1	100732 B- 8 Main Steam C	M1_I4-P2_RF24 / ISI / VT / VT-1 / FP- PE-NDE-510 M1_I4-P2_RF24 / PSI / VT / VT-1 / FP PE-NDE-510	ISI-13142-36-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- c - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
B-G-2 B7.70 1	100733 B- 9 Main Steam C		ISI-13142-36-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
B-G-2 B7.70 1	100734 B-10 Main Steam C		ISI-13142-36-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
B-G-2 B7.70 1	100973 B- 1 HPCI Steam		ISI-13142-42-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
B-G-2 B7.70 1	100974 B- 2 HPCI Steam	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01 M1_I4-P2_RF23 / ISI / VT / VT-1 / PEI- 02.05.01 M1_I4-P2_RF23 / PSI / VT / VT-1 / PEI-02.05.01	ISI-13142-42-A Valve Bolts	ISI AUG OWN PRE	- t - - - - - - - - - - c B - -	c - - - - - - - - - - - B - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
B-G-2 B7.70 1	101191 B- 1 Feedwater		ISI-13142-52-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
B-G-2 B7.70 1	101192 B- 2 Feedwater		ISI-13142-52-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
B-G-2 B7.70 1	101193 B- 3 Feedwater		ISI-13142-52-A Valve Bolts	ISI AUG OWN PRE	t - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.70 1	101246 B- 1 Feedwater		ISI-13142-53-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101247 B- 2 Feedwater		ISI-13142-53-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101248 B- 3 Feedwater		ISI-13142-53-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101848 B- 1 RHR Return A		ISI-97003-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101849 B- 2 RHR Return A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.01	ISI-97003-A Valve Bolts	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101852 B- 5 RHR Return A		ISI-97003-A Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101890 B- 1 RHR Suction A		ISI-97003-B Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101893 B- 4 RHR Suction A		ISI-97003-B Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.70 1	101894 B- 5 RHR Suction A		ISI-97003-B Valve Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.70 1	101928 B- 1 RHR Return B		ISI-97004-A Valve Bolts	ISI AUG OWN PRE	- t - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	101929 B- 2 RHR Return B	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.01	ISI-97004-A Valve Bolts	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -	- - - -
B-G-2 B7.70 1	101932 B- 5 RHR Return B		ISI-97004-A Valve Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	101970 B- 1 Recirculation A		ISI-97005-A Valve Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	101973 B- 4 Recirculation A		ISI-97005-A Valve Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	102075 B- 1 Recirculation B		ISI-97006-A Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.70 1	102078 B- 4 Recirculation B		ISI-97006-A Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102392 02-23B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102395 02-27B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2	102398		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	02-31B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102401		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	06-15B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102404		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	06-19B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	c	-	-
B-G-2	102407		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	06-23B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102408		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	06-27B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	c	-	-
B-G-2	102412		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	06-31B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102415		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	06-35B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	c	-	-
B-G-2	102418		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	06-39B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102421		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-11B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	c	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2	102424		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-15B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102425		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-19B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102426	M1_I4-P1_RF21 / PSI / VT / / PEI-	ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-23B	02.05.01	CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings	M1_I4-P1_RF22 / PSI / VT / / PEI-		OWN	-	-	-	-	-	-
		02.05.01		PRE	c	B	-	-	-	-
B-G-2	102427		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-27B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102428		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-31B	M1_I4-P1_RF21 / PSI / VT / / PEI-	CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings	02.05.01		OWN	-	-	-	-	-	-
				PRE	c	-	-	-	-	-
B-G-2	102429		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-35B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102432		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-39B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102435		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	10-43B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	c	-	-
B-G-2	102438		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	14-07B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.80 1	102441 14-11B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102442 14-15B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102443 14-19B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102444 14-23B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102445 14-27B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102446 14-31B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102447 14-35B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102448 14-39B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102451 14-43B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.80 1	102454 14-47B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102457 18-07B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102458 18-11B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102459 18-15B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102460 18-19B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102461 18-23B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102462 18-27B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102463 18-31B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102464 18-35B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.80 1	102465 18-39B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102466 18-43B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102469 18-47B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102472 22-03B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102475 22-07B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102476 22-11B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102477 22-15B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102478 22-19B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102479 22-23B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.80 1	102480 22-27B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102481 22-31B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102482 22-35B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102483 22-39B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102484 22-43B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102487 22-47B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102490 22-51B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102493 26-03B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102494 26-07B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.80 1	102495 26-11B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102496 26-15B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102497 26-19B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102498 26-23B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102499 26-27B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102500 26-31B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102501 26-35B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102502 26-39B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102503 26-43B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.80 1	102504 26-47B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102507 26-51B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102510 30-03B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102513 30-07B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102514 30-11B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102515 30-15B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102516 30-19B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102517 30-23B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102518 30-31B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.80 1	102519 30-35B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102520 30-39B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102521 30-43B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102524 30-47B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102527 30-51B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102530 34-07B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102531 34-11B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102532 34-15B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102533 34-19B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-G-2 B7.80 1	102534 34-23B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102535 34-27B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102536 34-31B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102537 34-35B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102538 34-39B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102541 34-43B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102544 34-47B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102547 38-07B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-G-2 B7.80 1	102550 38-11B CRD Housings	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2 B7.80 1	102551 38-15B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102552 38-19B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102553 38-23B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102554 38-27B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102555 38-31B CRD Housings	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.01 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.01	ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - c B - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102556 38-35B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102557 38-39B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102563 38-47B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-G-2 B7.80 1	102566 42-11B CRD Housings		ISI Fig 2 CRD Housing Bolts	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
B-G-2	102569		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-15B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102570		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-19B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102571		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-23B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102572		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-27B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102573		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-31B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102574		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-35B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102577		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-39B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102580		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	42-43B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102583		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	46-15B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
B-G-2	102586		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	46-19B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102589		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	46-23B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102590		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	46-27B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102593		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	46-31B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102596		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	46-35B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102599		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	46-39B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102602		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	50-23B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102605		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	50-27B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102608		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	50-31B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-G-2	102714		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	30-27B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-G-2	102715		ISI Fig 2	ISI	-	-	-	-	-	-
B7.80	38-43B		CRD Housing Bolts	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-K	102636		ISI Fig 3	ISI	-	-	-	-	s	-
B10.10	W-12	M1_I4-P3_RF25 / ISI / MT / / PEI-	B.H. to Skirt Weld	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.02.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-K	102650		ISI Fig 4	ISI	r	c	-	-	-	-
B10.10	Vsl Stblzr Lug @ 0 deg.	M1_I4-P1_RF22 / ISI / VT / / PEI-	Stblz Lug @ 0 deg / RR4 - One time Visual	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-K	106105		ISI Fig 4	ISI	-	c	-	-	-	-
B10.10	Vsl Stblzr Lug @ 90 deg.	M1_I4-P1_RF22 / ISI / VT / / PEI-	Stblz Lug @ 90 deg / RR4 - One time Visual	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-K	106106		ISI Fig 4	ISI	-	c	-	-	-	-
B10.10	Vsl Stblzr Lug @ 180 deg.	M1_I4-P1_RF22 / ISI / VT / / PEI-	Stblz Lug @ 180 deg / RR4 - One time Visual	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-K	106107		ISI Fig 4	ISI	-	c	-	-	-	-
B10.10	Vsl Stblzr Lug @ 270 deg.	M1_I4-P1_RF22 / ISI / VT / / PEI-	Stblz Lug @ 270 deg / RR4 - One time Visual	AUG	-	-	-	-	-	-
1	Reactor Vesse	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-K	100576		ISI-13142-33-A	ISI	c	-	-	-	-	-
B10.20	H- 1	M1_I4-P1_RF21 / ISI / MT / / PEI-	Dbl Spring / 4 Lugs	AUG	-	-	-	-	-	-
1	Main Steam A	02.02.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-K B10.20 1	100584 H- 8 Main Steam A		ISI-13142-33-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	100630 H- 1 Main Steam B		ISI-13142-34-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	100634 H- 5 Main Steam B		ISI-13142-34-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	100681 H- 1 Main Steam C		ISI-13142-35-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	100685 H- 5 Main Steam C		ISI-13142-35-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	100735 H- 1 Main Steam C		ISI-13142-36-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	100742 H- 7 Main Steam C		ISI-13142-36-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	101197 H- 3 Feedwater	M1_I4-P3_RF25 / ISI / MT / / PEI- 02.02.01	ISI-13142-52-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	s - - -
B-K B10.20 1	101203 H- 8 Feedwater		ISI-13142-52-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-K B10.20 1	101251 H- 3 Feedwater		ISI-13142-53-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101256 H- 8 Feedwater	M1_I4-P2_RF24 / ISI / MT / / PEI- 02.02.01	ISI-13142-53-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101363 H- 3 Reactor Wtr Cleanup		ISI-73880-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101976 H- 2 Recirculation A		ISI-97005-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101981 H- 5 Recirculation A		ISI-97005-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101983 H- 6 Recirculation A		ISI-97005-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101984 H- 7 Recirculation A		ISI-97005-A Double Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101986 H- 8 Recirculation A		ISI-97005-A Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	101989 H-10 Recirculation A	M1_I4-P1_RF21 / ISI / PT / / PEI- 02.01.01	ISI-97005-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-K B10.20 1	102019 H- 2 Recirc Manifold A		ISI-97005-B Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102023 H- 6 Recirc Manifold A		ISI-97005-B Spring / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102028 H-11 Recirc Manifold A		ISI-97005-B Spring / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102029 H-12 Recirc Manifold A	M1_I4-P3_RF25 / ISI / PT / / PEI- 02.01.01	ISI-97005-B Snubber / Lugs	ISI AUG OWN PRE	r - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102081 H- 3 Recirculation B	M1_I4-P1_RF21 / ISI / PT / / PEI- 02.01.01	ISI-97006-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102082 H- 5 Recirculation B		ISI-97006-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102087 H- 6 Recirculation B		ISI-97006-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102089 H- 7 Recirculation B		ISI-97006-A Dbl Spring / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102090 H- 8 Recirculation B		ISI-97006-A Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-K B10.20 1	102093 H-10 Recirculation B		ISI-97006-A Dbl Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102125 H-2 Recirc Manifold B		ISI-97006-B Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102127 H-5 Recirc Manifold B		ISI-97006-B Spring / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102136 H-10 Recirc Manifold B		ISI-97006-B Spring / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	102138 H-12 Recirc Manifold B		ISI-97006-B Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	107644 H-1 RHR Return B		ISI-97004-A Variable / Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	107645 H-1 RHR Return A		ISI-97003-A Variable Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	107646 H-2 RHR Return A		ISI-97003-A Variable Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.20 1	107647 H-5 RHR Suction A		ISI-97003-B Variable Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-K B10.20 1	107660 H- 1 HPCI Steam		ISI-13142-42-A Variable Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	107661 H- 1 RCIC Steam		ISI-13142-43-A Variable Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	107662 H- 4 Main Steam A		ISI-13142-33-A Variable / Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	107663 H- 4 Main Steam C		ISI-13142-36-A Variable / Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	107665 H- 2 Feedwater		ISI-13142-52-A Variable / Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	107666 H- 2 Feedwater		ISI-13142-53-A Variable / Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.20 1	107667 H- 2 Core Spray B		ISI-13142-26-A Restraint Slide	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.30 1	102063 H- 1 Recirc Pump A		ISI-97005-C Rod/Clevis Grip/Lugs/Constant-Suppor	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-K B10.30 1	102064 H- 2 Recirc Pump A		ISI-97005-C Rod/Clevis Grip/Lugs/Constant-Suppor	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-K B10.30 1	102065 H- 3 Recirc Pump A	M1_I4-P1_RF22 / ISI / PT / / PEI- 02.01.01	ISI-97005-C Rod/Clevis Grip/Lugs/Constant-Suppor	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.30 1	102172 H- 1 Recirc Pump B		ISI-97006-C Rod/Clevis Grip/Lugs/Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.30 1	102173 H- 2 Recirc Pump B		ISI-97006-C Rod/Clevis Grip/Lugs/Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-K B10.30 1	102174 H- 3 Recirc Pump B		ISI-97006-C Rod/Clevis Grip/Lugs/Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-L-2 B12.20 1	102099 P200-B Recirculation B	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.04 M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.04	ISI-97006-A Pump Casing Internal Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - c B - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-L-2 B12.20 1	107183 P200-A Recirculation A	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-97005-A Pump Casing Internal Surfaces	ISI AUG OWN PRE	- c - - - - - - - - - - c B - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100431 V- 1 Core Spray B		ISI-13142-26-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100432 V- 2 Core Spray B		ISI-13142-26-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-M-2 B12.50 1	100433 V- 3 Core Spray B		ISI-13142-26-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100497 V- 1 Core Spray A		ISI-13142-31-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100498 V- 2 Core Spray A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.04	ISI-13142-31-A Valve Int Surfaces	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100499 V- 3 Core Spray A		ISI-13142-31-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100585 V- 1 Main Steam A		ISI-13142-33-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100586 V- 2 Main Steam A		ISI-13142-33-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100587 V- 3 Main Steam A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.04 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.04	ISI-13142-33-A Valve Int Surfaces	ISI AUG OWN PRE	c - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100588 V- 4 Main Steam A		ISI-13142-33-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-M-2 B12.50 1	100635 V- 1 Main Steam B	M1_I4-P1_RF21 / PSI / / / M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.04 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.04	ISI-13142-34-A Valve Int Surfaces	ISI AUG OWN PRE	c - - p	- - - c	- - - -	- - - -	- - - -
B-M-2 B12.50 1	100636 V- 2 Main Steam B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.04 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.04	ISI-13142-34-A Valve Int Surfaces	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
B-M-2 B12.50 1	100637 V- 3 Main Steam B		ISI-13142-34-A Valve Int Surfaces	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-M-2 B12.50 1	100638 V- 4 Main Steam B		ISI-13142-34-A Valve Int Surfaces	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-M-2 B12.50 1	100687 V- 1 Main Steam C		ISI-13142-35-A Valve Int Surfaces	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-M-2 B12.50 1	100688 V- 2 Main Steam C		ISI-13142-35-A Valve Int Surfaces	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
B-M-2 B12.50 1	100689 V- 3 Main Steam C	M1_I4-P1_RF21 / PSI / VT / / ISI-VT- 3.0 M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.04	ISI-13142-35-A Valve Int Surfaces	ISI AUG OWN PRE	- - - p	c - - -	- - - -	- - - -	- - - -
B-M-2 B12.50 1	100690 V- 4 Main Steam C	M1_I4-P1_RF21 / PSI / / /	ISI-13142-35-A Valve Int Surfaces	ISI AUG OWN PRE	c - - p	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-M-2 B12.50 1	100743 V- 1 Main Steam C		ISI-13142-36-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100744 V- 2 Main Steam C		ISI-13142-36-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100745 V- 3 Main Steam C		ISI-13142-36-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100746 V- 4 Main Steam C	M1_I4-P2_RF24 / ISI / VT / VT-3 / FP- PE-NDE-530	ISI-13142-36-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100991 V- 1 HPCI Steam		ISI-13142-42-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	100992 V- 2 HPCI Steam	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.04	ISI-13142-42-A Valve Int Surfaces	ISI AUG OWN PRE	- t - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101204 V- 2 Feedwater	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.04 M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.04	ISI-13142-52-A Valve Int Surfaces	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101205 V- 1 Feedwater		ISI-13142-52-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101206 V- 3 Feedwater	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.04	ISI-13142-52-A Valve Int Surfaces	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-M-2 B12.50 1	101257 V- 1 Feedwater		ISI-13142-53-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101258 V- 2 Feedwater	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.04	ISI-13142-53-A Valve Int Surfaces	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101259 V- 3 Feedwater		ISI-13142-53-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101857 V- 1 RHR Return A		ISI-97003-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101858 V- 2 RHR Return A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.04	ISI-97003-A Valve Int Surfaces	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101859 V- 3 RHR Return A		ISI-97003-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101900 V- 1 RHR Suction A		ISI-97003-B Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101901 V- 2 RHR Suction A		ISI-97003-B Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101902 V- 3 RHR Suction A		ISI-97003-B Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-M-2 B12.50 1	101937 V- 1 RHR Return B		ISI-97004-A Valve Int Surfaces	ISI AUG OWN PRE	- t - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101938 V- 2 RHR Return B	M1_I4-P2_RF23 / ISI / VT / VT-3 / PEI 02.05.04	ISI-97004-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101939 V- 3 RHR Return B		ISI-97004-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101993 V- 1 Recirculation A		ISI-97005-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	101994 V- 2 Recirculation A		ISI-97005-A Valve Internals	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	102100 V- 1 Recirculation B		ISI-97006-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-M-2 B12.50 1	102101 V- 2 Recirculation B		ISI-97006-A Valve Int Surfaces	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-N-1 B13.10 1	102716 C- 1A Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05 M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 Top Guide (areas made access., fuel cell vacated)	ISI AUG OWN PRE	- B - - - - - - - - - - - - - -	- B - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3								
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011								
B-N-1	102718	M1_I4-P1_RF22 / ISI / VT / / PEI-	ISI Fig 0	ISI	-	B	-	-	B	-	-	-	s	-	-	-
B13.10	C- 3A	02.05.05	Shroud Shelf 0-180 deg	AUG	-	-	-	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	M1_I4-P2_RF23 / ISI / VT / VT-3 / PEI-		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		02.05.05														
		M1_I4-P3_RF25 / ISI / VT / / PEI-														
		02.05.05		PRE	-	-	-	-	-	-	-	-	-	-	-	-
B-N-1	102719	M1_I4-P1_RF22 / ISI / VT / / PEI-	ISI Fig 0	ISI	-	B	-	-	-	B	-	-	s	-	-	-
B13.10	C- 4A	02.05.05	Surveillance Sample Holder & Bracket @ 30 deg	AUG	-	-	-	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI-		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		02.05.05														
		M1_I4-P3_RF25 / ISI / VT / / PEI-														
		02.05.05		PRE	-	-	-	-	-	-	-	-	-	-	-	-
B-N-1	102723	M1_I4-P1_RF22 / ISI / VT / / PEI-	ISI Fig 0	ISI	-	B	-	-	-	B	-	-	s	-	-	-
B13.10	C- 8A	02.05.05	Stm Dryer Holddown Bracket @ 35 deg (in Closure Head)	AUG	-	-	-	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI-		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		02.05.05														
		M1_I4-P3_RF25 / ISI / VT / / PEI-														
		02.05.05		PRE	-	-	-	-	-	-	-	-	-	-	-	-
B-N-1	102724	M1_I4-P1_RF22 / ISI / VT / / PEI-	ISI Fig 0	ISI	-	B	-	-	-	B	-	-	s	-	-	-
B13.10	C- 9A	02.05.05	Steam Dryer Support Bracket @ 35 deg.	AUG	-	-	-	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI-		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		02.05.05														
		M1_I4-P3_RF25 / ISI / VT / / PEI-														
		02.05.05		PRE	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-N-1	107678		ISI Fig 0	ISI	- B - -	- B - -	s - - -	
B13.10	C- 4B	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	Surveillance Sample Holder & Bracket @ 120 deg	AUG	- - - -	- - - -	- - - -	
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05		OWN	- - - -	- - - -	- - - -	
		M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		PRE	- - - -	- - - -	- - - -	
B-N-1	107679		ISI Fig 0	ISI	- B - -	- B - -	s - - -	
B13.10	C- 4C	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	Surveillance Sample Holder & Bracket @ 30 deg	AUG	- - - -	- - - -	- - - -	
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05		OWN	- - - -	- - - -	- - - -	
		M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		PRE	- - - -	- - - -	- - - -	
B-N-1	107690		ISI Fig 0	ISI	- B - -	B - - -	s - - -	
B13.10	C- 3B	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	Shroud Shelf 180-360 deg	AUG	- - - -	- - - -	- - - -	
1	Reactor Vesse	M1_I4-P2_RF23 / ISI / VT / VT-3 / PEI- 02.05.05		OWN	- - - -	- - - -	- - - -	
		M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		PRE	- - - -	- - - -	- - - -	
B-N-1	107696		ISI Fig 0	ISI	- B - -	- B - -	s - - -	
B13.10	C- 1C	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	Guide Rod Bracket @ 175 deg	AUG	- - - -	- - - -	- - - -	
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05		OWN	- - - -	- - - -	- - - -	
		M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		PRE	- - - -	- - - -	- - - -	
B-N-1	107697		ISI Fig 0	ISI	- B - -	- B - -	s - - -	
B13.10	C- 1D	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	Guide Rod Bracket @ 355 deg	AUG	- - - -	- - - -	- - - -	
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05		OWN	- - - -	- - - -	- - - -	
		M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		PRE	- - - -	- - - -	- - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-N-1	107723		ISI Fig 0	ISI	- B - -	- B - -	s - - -		
B13.10	C- 8B	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05	Stm Dryer Holddown Bracket @ 145 deg (in Closure Head)	AUG	- - - -	- - - -	- - - -		
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI-02.05.05		OWN	- - - -	- - - -	- - - -		
		M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		PRE	- - - -	- - - -	- - - -		
B-N-1	107724		ISI Fig 0	ISI	- B - -	- B - -	s - - -		
B13.10	C- 8C	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05	Stm Dryer Holddown Bracket @ 215 deg (in Closure Head)	AUG	- - - -	- - - -	- - - -		
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI-02.05.05		OWN	- - - -	- - - -	- - - -		
		M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		PRE	- - - -	- - - -	- - - -		
B-N-1	107725		ISI Fig 0	ISI	- B - -	- B - -	s - - -		
B13.10	C- 8D	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05	Stm Dryer Holddown Bracket @ 325 deg (in Closure Head)	AUG	- - - -	- - - -	- - - -		
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI-02.05.05		OWN	- - - -	- - - -	- - - -		
		M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		PRE	- - - -	- - - -	- - - -		
B-N-1	107730		ISI Fig 0	ISI	- B - -	- B - -	s - - -		
B13.10	C- 9B	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05	Steam Dryer Support Bracket @ 145 deg.	AUG	- - - -	- - - -	- - - -		
1	Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI-02.05.05		OWN	- - - -	- - - -	- - - -		
		M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		PRE	- - - -	- - - -	- - - -		

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-N-1	107731		ISI Fig 0	ISI	- B - -	- B - -	s - - -	
B13.10 1	C- 9C Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05 M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	Steam Dryer Support Bracket @ 215 deg.	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-1	107732		ISI Fig 0	ISI	- B - -	- B - -	s - - -	
B13.10 1	C- 9D Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05 M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	Steam Dryer Support Bracket @ 325 deg.	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-1	107738		ISI Fig 0	ISI	B B - -	B B - -	s - - -	
B13.10 1	C-12A Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05 M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.05 M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	Core Plate (areas made access., fuel cell vacated)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	102717		ISI Fig 0	ISI	- - - -	- - - -	s - - -	
B13.20 1	C- 2A Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	Jet Pump Pair 1/2 Riser Support Pads / Welds	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107681		ISI Fig 0	ISI	- - - -	- - - -	s - - -	
B13.20 1	C- 2B Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	Jet Pump Pair 3/4 Riser Support Pads / Welds	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-N-2	107682		ISI Fig 0 Jet Pump Pair 5/6 Riser Support Pads / Welds	ISI	- - - -	- - - -	s - - -	- - - -	
B13.20 1	C- 2C Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107683		ISI Fig 0 Jet Pump Pair 7/8 Riser Support Pads / Welds	ISI	- - - -	- - - -	s - - -	- - - -	
B13.20 1	C- 2D Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107684		ISI Fig 0 Jet Pump Pair 9/10 Riser Support Pads / Welds	ISI	- - - -	- - - -	s - - -	- - - -	
B13.20 1	C- 2E Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107685		ISI Fig 0 Jet Pump Pair 11/12 Riser Support Pads / Welds	ISI	- - - -	- - - -	s - - -	- - - -	
B13.20 1	C- 2F Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107686		ISI Fig 0 Jet Pump Pair 13/14 Riser Support Pads / Welds	ISI	- - - -	- - - -	s - - -	- - - -	
B13.20 1	C- 2G Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107687		ISI Fig 0 Jet Pump Pair 15/16 Riser Support Pads / Welds	ISI	- - - -	- - - -	s - - -	- - - -	
B13.20 1	C- 2H Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107688		ISI Fig 0 Jet Pump Pair 17/18 Riser Support Pads / Welds	ISI	- - - -	- - - -	s - - -	- - - -	
B13.20 1	C- 2J Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-N-2	107689		ISI Fig 0 Jet Pump Pair 19/20 Riser Support Pads / Welds	ISI	- - - -	- - - -	- - - -	s	- - - -
B13.20 1	C- 2K Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
B-N-2	107693		ISI Fig 0 Surveillance Sample Holder Lower Weld @ 30 deg	ISI	- - - -	- - - -	- - - -	s	- - - -
B13.20 1	C- 4D Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
B-N-2	107694		ISI Fig 0 Surveillance Sample Holder Lower Weld @ 120 deg	ISI	- - - -	- - - -	- - - -	s	- - - -
B13.20 1	C- 4E Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
B-N-2	107695		ISI Fig 0 Surveillance Sample Holder Lower Weld @ 300 deg	ISI	- - - -	- - - -	- - - -	s	- - - -
B13.20 1	C- 4F Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
B-N-2	107698		ISI Fig 0 Guide Rod Bracket Weld @ 175 deg	ISI	- - - -	- - - -	- - - -	s	- - - -
B13.20 1	C- 1E Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
B-N-2	107699		ISI Fig 0 Guide Rod Bracket Weld @ 355 deg	ISI	- - - -	- - - -	- - - -	s	- - - -
B13.20 1	C- 1F Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
B-N-2	102720		ISI Fig 0 Core Spray Piping Bracket Weld @ 30 deg.	ISI	- c - -	- - - -	- - - -	- - - -	- - - -
B13.30 1	C- 5A Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
B-N-2	102721		ISI Fig 0 FW Sparger Bracket Welds @ 0 deg	ISI	- - - -	- - - -	- - - -	s	- - - -
B13.30 1	C- 6A Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-N-2 B13.30 1	107691 C- 3C Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 Shroud Shelf H-9 Weld 0-180 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-N-2 B13.30 1	107692 C- 3D Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 Shroud Shelf H-9 Weld 180-360 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-N-2 B13.30 1	107700 C- 5B Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 Core Spray Sparger Bracket Weld @ 150 deg.	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-N-2 B13.30 1	107701 C- 5C Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 Core Spray Piping Bracket Weld @ 210 deg.	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-N-2 B13.30 1	107702 C- 5D Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 Core Spray Piping Bracket Weld @ 330 deg.	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
B-N-2 B13.30 1	107703 C- 6B Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 FW Sparger Bracket Welds @ 90 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-N-2 B13.30 1	107704 C- 6C Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 FW Sparger Bracket Welds @ 180 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
B-N-2 B13.30 1	107705 C- 6D Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0 FW Sparger Bracket Welds @ 270 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
B-N-2 B13.30 1	107706 C- 7B Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0 Shroud Support Leg Weld @ 10 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- A - - - - - - - - - - - - - -	h - - - - - - - - - - - - - - -	
B-N-2 B13.30 1	107707 C- 7C Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0 Shroud Support Leg Weld @ 30 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- A - - - - - - - - - - - - - -	h - - - - - - - - - - - - - - -	
B-N-2 B13.30 1	107708 C- 7D Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0 Shroud Support Leg Weld @ 60 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- A - - - - - - - - - - - - - -	h - - - - - - - - - - - - - - -	
B-N-2 B13.30 1	107709 C- 7E Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0 Shroud Support Leg Weld @ 90 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- A - - - - - - - - - - - - - -	h - - - - - - - - - - - - - - -	
B-N-2 B13.30 1	107710 C- 7F Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0 Shroud Support Leg Weld @ 120 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- A - - - - - - - - - - - - - -	h - - - - - - - - - - - - - - -	
B-N-2 B13.30 1	107711 C- 7G Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0 Shroud Support Leg Weld @ 150 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- A - - - - - - - - - - - - - -	h - - - - - - - - - - - - - - -	
B-N-2 B13.30 1	107712 C- 7H Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0 Shroud Support Leg Weld @ 170 deg	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- A - - - - - - - - - - - - - -	h - - - - - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3					
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011					
B-N-2 B13.30 1	107713 C- 7J Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0	ISI	-	-	-	-	h	-	-	-	
			Shroud Support Leg Weld @ 190 deg	AUG	-	-	-	-	-	-	-	-	-
				OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-N-2 B13.30 1	107714 C- 7K Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / VT-3 / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0	ISI	H	-	-	-	-	H	-	-	
			Shroud Support Leg Weld @ 210 deg	AUG	-	-	-	-	-	-	-	-	-
				OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-N-2 B13.30 1	107715 C- 7L Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0	ISI	-	-	-	-	-	E	-	-	
			Shroud Support Leg Weld @ 240 deg	AUG	-	-	-	-	-	-	-	-	-
				OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-N-2 B13.30 1	107716 C- 7M Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0	ISI	-	-	-	-	-	A	-	-	
			Shroud Support Leg Weld @ 270 deg	AUG	-	-	-	-	-	-	-	-	-
				OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-N-2 B13.30 1	107717 C- 7N Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / VT-3 / PEI- 02.05.05	ISI Fig 0	ISI	-	-	-	-	-	A	-	-	
			Shroud Support Leg Weld @ 300 deg	AUG	-	-	-	-	-	-	-	-	-
				OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-N-2 B13.30 1	107718 C- 7P Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0	ISI	-	-	-	-	-	A	-	-	
			Shroud Support Leg Weld @ 330 deg	AUG	-	-	-	-	-	-	-	-	-
				OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-N-2 B13.30 1	107719 C- 7Q Reactor Vesse	M1_I4-P2_RF24 / ISI / VT / / PEI- 02.05.05 M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05	ISI Fig 0	ISI	-	-	-	-	-	A	-	-	
			Shroud Support Leg Weld @ 350 deg	AUG	-	-	-	-	-	-	-	-	-
				OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
B-N-2	107720		ISI Fig 0 Surveillance Sample Holder Upper Weld @ 30 deg	ISI	-	-	-	-	s	-	-	-
B13.30 1	C- 4G Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	-	-	-	-	-	-	-	-
B-N-2	107721		ISI Fig 0 Surveillance Sample Holder Upper Weld @ 120 deg	ISI	-	-	-	-	s	-	-	-
B13.30 1	C- 4H Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	-	-	-	-	-	-	-	-
B-N-2	107722		ISI Fig 0 Surveillance Sample Holder Upper Weld @ 300 deg	ISI	-	-	-	-	s	-	-	-
B13.30 1	C- 4J Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	-	-	-	-	-	-	-	-
B-N-2	107726		ISI Fig 0 Stm Dryer Holddown Bkt Weld @ 35 deg (in Closure Hd)	ISI	-	-	-	-	s	-	-	-
B13.30 1	C- 8E Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	-	-	-	-	-	-	-	-
B-N-2	107727		ISI Fig 0 Stm Dryer Holddown Bkt Weld @ 145 deg (in Closure Hd)	ISI	-	-	-	-	s	-	-	-
B13.30 1	C- 8F Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	-	-	-	-	-	-	-	-
B-N-2	107728		ISI Fig 0 Stm Dryer Holddown Bkt Weld @ 215 deg (in Closure Hd)	ISI	-	-	-	-	s	-	-	-
B13.30 1	C- 8G Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	-	-	-	-	-	-	-	-
B-N-2	107729		ISI Fig 0 Stm Dryer Holddown Bkt Weld @ 325 deg (in Closure Hd)	ISI	-	-	-	-	s	-	-	-
B13.30 1	C- 8H Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI- 02.05.05		AUG OWN PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-N-2	107733		ISI Fig 0 Steam Dryer Support Bracket Weld @ 35 deg.	ISI	- - - -	- - - -	s - - -	- - - -	
B13.30 1	C- 9E Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107734		ISI Fig 0 Steam Dryer Support Bracket Weld @ 145 deg.	ISI	- - - -	- - - -	s - - -	- - - -	
B13.30 1	C- 9F Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107735		ISI Fig 0 Steam Dryer Support Bracket Weld @ 215 deg.	ISI	- - - -	- - - -	s - - -	- - - -	
B13.30 1	C- 9G Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107736		ISI Fig 0 Steam Dryer Support Bracket Weld @ 325 deg.	ISI	- - - -	- - - -	s - - -	- - - -	
B13.30 1	C- 9H Reactor Vesse	M1_I4-P3_RF25 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107740		ISI Fig 0 Bottom Head Drain Weld (N-15)	ISI	- c - -	- - - -	- - - -	- - - -	
B13.30 1	C-13 Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107741		ISI Fig 0 Bottom Head CRD Stub Tubes	ISI	- c - -	- - - -	- - - -	- - - -	
B13.30 1	C-14 Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107742		ISI Fig 0 Bottom Head CRD Housing/Stub Tubes	ISI	- c - -	- - - -	- - - -	- - - -	
B13.30 1	C-15 Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
B-N-2	107743		ISI Fig 0 Bottom Head Incore Housing	ISI	- c - -	- - - -	- - - -	- - - -	
B13.30 1	C-16 Reactor Vesse	M1_I4-P1_RF22 / ISI / VT / / PEI-02.05.05		AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
B-N-2	102722		ISI Fig 0	ISI	-	-	-	-	s	-	-	-
B13.40	C- 7A	M1_I4-P3_RF25 / ISI / VT / / PEI-	Shroud Support Legs	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-N-2	107680		ISI Fig 0	ISI	-	-	-	-	s	-	-	-
B13.40	C- 1B	M1_I4-P3_RF25 / ISI / VT / / PEI-	Top Guide	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
B-N-2	107739		ISI Fig 0	ISI	B	B	-	-	s	-	-	-
B13.40	C-12B	M1_I4-P1_RF22 / ISI / VT / / PEI-	Core Plate (areas made access., fuel cell vacated)	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05		OWN	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / VT / / PEI-										
		02.05.05										
		M1_I4-P2_RF24 / ISI / VT / / PEI-										
		02.05.05										
		M1_I4-P3_RF25 / ISI / VT / / PEI-										
		02.05.05										
				PRE	-	-	-	-	-	-	-	-
B-N-2	107744		ISI Fig 0	ISI	B	B	-	-	s	-	-	-
B13.40	C-17A	M1_I4-P1_RF22 / ISI / VT / / PEI-	Fuel Support Cast. (areas made access., fue cell vacated)	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05		OWN	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / VT / / PEI-										
		02.05.05										
		M1_I4-P3_RF25 / ISI / VT / / PEI-										
		02.05.05										
				PRE	-	-	-	-	-	-	-	-
B-N-2	107745		ISI Fig 0	ISI	B	-	-	-	s	-	-	-
B13.40	C-17B	M1_I4-P3_RF25 / ISI / VT / / PEI-	Peripheral Fuel Spt (areas made access, fuel cell vacated)	AUG	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3					
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011					
B-N-2	107746		ISI Fig 0	ISI	B	B	-	-	s	-	-	-	-
B13.40	C-18	M1_I4-P1_RF22 / ISI / VT / / PEI-	Ctrl Rod Guide Tube - Int (when access, fuel	AUG	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05	cell vacated)	OWN	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / VT / / PEI-											
		02.05.05											
		M1_I4-P2_RF24 / ISI / VT / / PEI-											
		02.05.05											
		M1_I4-P3_RF25 / ISI / VT / / PEI-											
		02.05.05		PRE	-	-	-	-	-	-	-	-	-
B-N-2	107747		ISI Fig 0	ISI	-	-	-	-	s	-	-	-	-
B13.40	C- 3E	M1_I4-P3_RF25 / ISI / VT / / PEI-	Shroud Shelf 0-180 deg	AUG	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05		OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-N-2	107748		ISI Fig 0	ISI	-	-	-	-	s	-	-	-	-
B13.40	C- 3F	M1_I4-P3_RF25 / ISI / VT / / PEI-	Shroud Shelf 180-360 deg	AUG	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	02.05.05		OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-O	102390		ISI Fig 2	ISI	-	-	-	-	-	-	-	-	-
B14.10	02-23 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-O	102391		ISI Fig 2	ISI	-	-	-	-	-	-	-	-	-
B14.10	02-23 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-O	102393		ISI Fig 2	ISI	-	-	-	-	s	-	-	-	-
B14.10	02-27 (Lower)	M1_I4-P3_RF25 / ISI / PT / / PEI-	CRD Housing Weld	AUG	-	-	-	-	-	-	-	-	-
1	CRD Housings	02.01.01		OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-
B-O	102394		ISI Fig 2	ISI	-	-	-	-	s	-	-	-	-
B14.10	02-27 (Upper)	M1_I4-P3_RF25 / ISI / PT / / PEI-	CRD Housing Weld	AUG	-	-	-	-	-	-	-	-	-
1	CRD Housings	02.01.01		OWN	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-O	102396		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	02-31 (Lower)	M1_I4-P3_RF25 / ISI / PT / / PEI-	CRD Housing Weld	AUG	-	-	-	-	-	s
1	CRD Housings	02.01.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102397		ISI Fig 2	ISI	-	-	-	-	-	s
B14.10	02-31 (Upper)	M1_I4-P3_RF25 / ISI / PT / / PEI-	CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings	02.01.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102399		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	06-15 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102400		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	06-15 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102416		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	06-39 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102417		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	06-39 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102419		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	10-11 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102420		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	10-11 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102433		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	10-43 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-O	102434		ISI Fig 2	ISI	-	-	-	-	-
B14.10	10-43 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102436		ISI Fig 2	ISI	-	-	-	-	-
B14.10	14-07 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102437		ISI Fig 2	ISI	-	-	-	-	-
B14.10	14-07 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102452		ISI Fig 2	ISI	-	-	-	-	-
B14.10	14-47 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102453		ISI Fig 2	ISI	-	-	-	-	-
B14.10	14-47 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102470		ISI Fig 2	ISI	-	-	-	-	-
B14.10	22-03 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102471		ISI Fig 2	ISI	-	-	-	-	-
B14.10	22-03 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102488		ISI Fig 2	ISI	-	-	-	-	-
B14.10	22-51 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
B-O	102489		ISI Fig 2	ISI	-	-	-	-	-
B14.10	22-51 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
B-O	102491		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	26-03 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102492		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	26-03 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102505		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	26-51 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102506		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	26-51 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102508		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	30-03 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102509		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	30-03 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102525		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	30-51 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102526		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	30-51 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102545		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	38-07 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
B-O	102546		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	38-07 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102561		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	38-47 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102562		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	38-47 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102564		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	42-11 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102565		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	42-11 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102578		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	42-43 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102579		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	42-43 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102581		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	46-15 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102582		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	46-15 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
B-O	102597		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	46-39 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102598		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	46-39 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102600		ISI Fig 2	ISI	-	-	-	-	s	-
B14.10	50-23 (Lower)	M1_I4-P3_RF25 / ISI / PT / / PEI-	CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings	02.01.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102601		ISI Fig 2	ISI	-	-	-	-	s	-
B14.10	50-23 (Upper)	M1_I4-P3_RF25 / ISI / PT / / PEI-	CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings	02.01.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102603		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	50-27 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102604		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	50-27 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102606		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	50-31 (Lower)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
B-O	102607		ISI Fig 2	ISI	-	-	-	-	-	-
B14.10	50-31 (Upper)		CRD Housing Weld	AUG	-	-	-	-	-	-
1	CRD Housings			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	RF26_2012	RF27_2013	RF28_2014	RF29_2015	RF30_2016	RF31_2017	RF32_2018	RF33_2019	RF34_2020
B-P	107055		1.5-2 Boundary	ISI	B	B	-	-	B	B	-	-	s	-	-	-	-
B15.10	Reactor Coolant Pressure Boundar		System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Reactor Coolant Pressure Boundary	M1_I4-P1_RF21 / ISI / VT / / 0255-20-IIC-2 M1_I4-P1_RF22 / ISI / VT / / 0255-20-IIC-1 M1_I4-P1_RF22 / ISI / VT / / 0255-20-IIC-2 M1_I4-P2_RF23 / ISI / VT / / 0255-20-IIC-2 M1_I4-P2_RF24 / ISI / VT / / 0255-20-IIC-1 M1_I4-P2_RF24 / ISI / VT / / 0255-20-IIC-2 M1_I4-P3_RF25 / ISI / VT / / 0255-20-IIC-1 M1_I4-P3_RF25 / ISI / VT / / 0255-20-IIC-2		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
C-A	101600		ISI-7905-32A	ISI	r	c	-	-	-	-	-	-	-	-	-	-	-
C1.10	W-1	M1_I4-P1_RF22 / ISI / UT / / PEI-	Top Flange to Shel	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger A	02.03.01		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
C-A	101601		ISI-7905-32A	ISI	-	-	-	-	-	-	-	-	s	-	-	-	-
C1.10	W-2	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Lower Flange/Shel	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger A	NDE-401		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
C-A	101611		ISI-7905-32B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-
C1.10	W-1		Top Flange to Shel	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
C-A	101612		ISI-7905-32B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-
C1.10	W-2		Lower Flange/Shel	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-

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					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-A	101602		ISI-7905-32A	ISI	-	-	-	-	-	-
C1.20	W-3	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	Lower Head/Flange	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger A	NDE-401		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-A	101603		ISI-7905-32A	ISI	-	-	-	-	-	-
C1.20	W-4	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Lower Head Circ Welo	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger A	NDE-401		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-A	101613		ISI-7905-32B	ISI	-	-	-	-	-	-
C1.20	W-3		Lower Head/Flange	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-A	101614		ISI-7905-32B	ISI	-	-	-	-	-	-
C1.20	W-4		Lower Head Circ Welo	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-B	101594		ISI-7905-32A	ISI	r	c	-	-	-	-
C2.31	N- 1	M1_I4-P1_RF22 / ISI / MT / / PEI-	Shell-Pad-Noz	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger A	02.02.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-B	101595		ISI-7905-32A	ISI	r	r	-	-	-	-
C2.31	N- 2	M1_I4-P2_RF24 / ISI / MT / / PEI-	Shell-Pad-Noz	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger A	02.02.01		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-B	101604		ISI-7905-32B	ISI	-	-	-	-	-	-
C2.31	N -1		Shell-Pad-Noz	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-B	101605		ISI-7905-32B	ISI	-	-	-	-	-	-
C2.31	N- 2		Shell-Pad-Noz	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
C-C	101596		ISI-7905-32A	ISI	-	-	-	-	-	-
C3.10	Support A		Support A,E200A, 0 ^c	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger A			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-C C3.10 2	101597 Support B RHR Heat Exchanger A		ISI-7905-32A Support B,E200A 180°	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.10 2	101598 Support C RHR Heat Exchanger A	M1_I4-P1_RF22 / ISI / MT / / PEI- 02.02.01	ISI-7905-32A Support C,E200A 315°	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.10 2	101606 Support A RHR Heat Exchanger E		ISI-7905-32B Support A,E200B 0°	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.10 2	101607 Support B RHR Heat Exchanger E		ISI-7905-32B Support B,E200B 180°	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.10 2	101609 Support C RHR Heat Exchanger E		ISI-7905-32B Support C,E200B 315°	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100060 H- 5 RHR Suction A		ISI-13142-17-A Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100062 H- 6 RHR Suction A		ISI-13142-17-A Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100133 H- 6 RHR Suction B	M1_I4-P3_RF25 / ISI / MT / / PEI- 02.02.01	ISI-13142-17-C Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
C-C C3.20 2	100135 H- 8 RHR Suction B		ISI-13142-17-C Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
C-C C3.20 2	100136 H- 9 RHR Suction B	M1_I4-P1_RF22 / ISI / MT / / PEI- 02.02.01	ISI-13142-17-C Dbl Strut / 8 Lugs	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100179 H- 9 RHR Discharge B	M1_I4-P1_RF21 / ISI / MT / / PEI- 02.02.01	ISI-13142-18-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100265 H- 3 HPCI Steam Disch		ISI-13142-19-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100270 H- 7 HPCI Steam Disch	M1_I4-P3_RF25 / ISI / MT / / PEI- 02.02.01	ISI-13142-19-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
C-C C3.20 2	100788 H- 7 RHR Discharge A		ISI-13142-37-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100814 H- 2 Containment Spray		ISI-13142-37-B Strut / 8 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100815 H- 3 Containment Spray	M1_I4-P2_RF23 / ISI / MT / / PEI- 02.02.01	ISI-13142-37-B Strut / 8 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100818 H- 5 Containment Spray		ISI-13142-37-B Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100820 H- 6 Containment Spray		ISI-13142-37-B Dbl Spr/Clamp&Saddle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
C-C C3.20 2	100821 H- 7 Containment Spray		ISI-13142-37-B Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100917 H- 6 HPCI Water Side Dsch		ISI-13142-40-B Dbl Strut / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	100978 H- 3 HPCI Steam	M1_I4-P2_RF23 / ISI / MT / / PEI- 02.02.01	ISI-13142-42-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	101167 H- 2 Containment Spray		ISI-13142-51-B Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	101721 H-20 CRD Scram Header A		ISI-93268-1A Tank Support	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	101804 H- 7 CRD Scram Header B		ISI-93268-3A Restraint / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	101815 H-14 CRD Scram Header B		ISI-93268-3A Tank Support	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	106979 H- 6 Fuel Pool Emergency Coolin		ISI-13142-67 Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107608 H- 3 RHR Suction A		ISI-13142-17-A Slide Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-C	107609		ISI-13142-17-A	ISI	-	-	-	-	-
C3.20	H- 8		Slide	AUG	-	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107610		ISI-13142-17-A	ISI	-	-	-	-	-
C3.20	H- 9		Slide	AUG	-	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107611		ISI-13142-17-B	ISI	-	-	-	-	-
C3.20	H- 3		Restraint	AUG	-	-	-	-	-
2	HPCI Water Side Sctn			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107612		ISI-13142-40-B	ISI	-	-	-	-	-
C3.20	H-10		Variable Spring	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107613		ISI-13142-20-B	ISI	-	-	-	-	-
C3.20	H- 1		Variable	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107614		ISI-13142-20-B	ISI	-	-	-	-	-
C3.20	H- 2		Slide Hanger	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107615		ISI-13142-20-B	ISI	-	-	-	-	-
C3.20	H- 4		Variable / Suppor	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107616		ISI-13142-20-B	ISI	-	-	-	-	-
C3.20	H- 5	M1_I4-P2_RF23 / ISI / MT / / PEI-	Variable / Suppor	AUG	-	-	-	-	-
2	Core Spray B	02.02.01		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
C-C	107617		ISI-13142-20-A	ISI	-	-	-	-	-
C3.20	H- 1		Variable Spr / Slide	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-C C3.20 2	107618 H- 2 Core Spray A	M1_I4-P3_RF25 / ISI / MT / / PEI- 02.02.01	ISI-13142-20-A Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107619 H- 4 Core Spray A		ISI-13142-20-A Variable Spr/Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107620 H- 2 RHR A		ISI-13142-51-A Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107621 H- 4 RHR A		ISI-13142-51-A Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107622 H- 6 RHR A		ISI-13142-51-A Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107623 H- 7 RHR A		ISI-13142-51-A Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107624 H- 3 RHR Discharge A		ISI-13142-37-C Variable Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107625 H- 4 RHR Discharge A		ISI-13142-37-A Dbl Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107626 H- 1 Containment Spray		ISI-13142-37-B Variable Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
C-C C3.20 2	107627 H- 4 Containment Spray		ISI-13142-37-B Variable Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107628 H- 1 CORE SPRAY B		ISI-13142-26-C Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107629 H- 6 Core Spray B Discharge		ISI-13142-26-C Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107630 H- 9 Core Spray B Discharge		ISI-13142-26-C Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107631 H- 2 CORE SPRAY B		ISI-13142-26-B Restraint Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107632 H- 1 RHR Discharge B		ISI-13142-18-B Variable Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107633 H- 5 RHR Discharge B		ISI-13142-18-A Dbl Spr/U-Blt/Saddle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107634 H- 6 RHR Discharge B		ISI-13142-18-A Dbl Spr/U-Blt/Saddle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107635 H- 8 RHR Discharge B		ISI-13142-18-A Dbl Spr/U-Blt/Saddle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-C C3.20 2	107636 H- 1 RHR A		ISI-13142-37-D Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107637 H- 2 RHR A		ISI-13142-37-D Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107638 H-1B Core Spray A Discharge		ISI-13142-31-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107639 H- 4 CORE SPRAY B		ISI-13142-26-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107640 H- 1 RHR B		ISI-13142-51-D Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107641 H- 2 RHR B		ISI-13142-51-D Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107642 H- 1 RHR B		ISI-13142-51-C Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107643 H-11 RHR Discharge B		ISI-13142-18-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107648 H- 1 Core Spray A Discharge		ISI-13142-31-C Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
C-C C3.20 2	107649 H- 2 RHR Suction A		ISI-13142-49-A Dbl Spring / Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107650 H- 4 RHR Suction B	M1_4-P2_RF23 / PSI / PT / / PEI- 02.01.01	ISI-13142-17-C Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107651 H- 2 RHR Suction B		ISI-13142-17-C Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107652 H- 3 RHR Suction B		ISI-13142-17-C Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107653 H- 5 Fuel Pool Emergency Coolin		ISI-13142-62 Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107654 H- 4 Fuel Pool Emergency Coolin		ISI-13142-62 Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107656 H- 3 RHR A		ISI-13142-37-D Double Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107657 H- 5 RHR B		ISI-13142-51-C Seismic Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107658 H- 1 RHR A		ISI-13142-51-A Snubber / Dbl Stru	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1			Period 2			Period 3		
				RF21_2003	RF22_2005		RF23_2007	RF24_2009		RF25_2011		
C-C C3.20 2	107659 H- 4 RHR Discharge A		ISI-13142-37-C Dbl Strut / Snubber	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107664 H- 2 RCIC Steam Discharge		ISI-13142-19-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107668 H-14 HPCI Water Side Dsch		ISI-13142-40-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107669 H- 4 HPCI Water Side Sctn		ISI-13142-17-B Restraint	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107670 H- 3 HPCI Water Side Dsch		ISI-13142-40-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107671 H- 5 RCIC Steam Discharge		ISI-13142-19-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107672 H- 4 Core Spray A Discharge		ISI-13142-31-C Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107673 H- 4 RHR SERVICE WATER		ISI-13142-48-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
C-C C3.20 2	107674 H- 1 Fuel Pool Emergency Coolin		ISI-13142-67 Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-C C3.20 2	107675 H- 2 Fuel Pool Emergency Coolin		ISI-13142-67 Restraint Hange OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107676 H- 5 Fuel Pool Emergency Coolin		ISI-13142-67 Restraint Hange OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107677 H- 9 Fuel Pool Emergency Coolin		ISI-13142-67 Restraint Hange OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107753 W-7A RHR A		ISI-13142-37-D Reinforcing Plate-to-Pipe OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.20 2	107754 W-7B RHR A		ISI-13142-37-D Reinforcing Plate-to-Pipe OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.30 2	102745 RHR Support C RHR Pumps		ISI-48 Pump Support OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.30 2	102747 RHR Support D RHR Pumps		ISI-48 Pump Support OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
C-C C3.30 2	102751 RHR Support A RHR Pumps	M1_I4-P3_RF25 / ISI / MT / / PEI-02.02.01	ISI-48 Pump Support OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
C-C C3.30 2	102752 RHR Support B RHR Pumps		ISI-48 Pump Support OWN PRE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
C-C	102753		ISI-49	ISI	r	r	-	-	-	-	-	-
C3.30	Support, Pump A	M1_I4-P2_RF23 / ISI / MT / / PEI-	Pump Support	AUG	-	-	-	-	-	-	-	-
2	Core Spray Pumps	02.02.01		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
C-C	102754		ISI-49	ISI	-	-	-	-	-	-	-	-
C3.30	Support, Pump B		Pump Support	AUG	-	-	-	-	-	-	-	-
2	Core Spray Pumps			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
C-H	100003		1.5-12 Boundary	ISI	-	B	-	-	-	B	-	-
C7.10	SBLC	M1_I4-P1_RF22 / ISI / VT / / 0255-02-	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-
2	SBLC	IIC-1		OWN	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / VT / / 0255-02-										
		IIC-2										
		M1_I4-P2_RF24 / ISI / VT / / 0255-02-										
		IIC-1										
		M1_I4-P2_RF24 / ISI / VT / / 0255-02-										
		IIC-2										
		M1_I4-P3_RF25 / ISI / VT / / 0255-02-										
		IIC-1										
		M1_I4-P3_RF25 / ISI / VT / / 0255-02-										
		IIC-2		PRE	-	-	-	-	-	-	-	-
C-H	100008		1.5-5 Boundary	ISI	-	B	-	-	-	B	-	-
C7.10	Core Spray System Loop A	M1_I4-P2_RF24 / ISI / VT / / 0255-03-	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-
2	Core Spray Loop A	IIC-1		OWN	-	-	-	-	-	-	-	-
		M1_I4-P3_RF25 / ISI / VT / / 0255-03-										
		IIC-1		PRE	-	-	-	-	-	-	-	-
C-H	100010		1.5-7 Boundary	ISI	-	B	-	-	-	B	-	-
C7.10	RHR System Loop E	M1_I4-P1_RF22 / ISI / / /	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-
2	RHR Loop B	M1_I4-P2_RF24 / ISI / VT / / 0255-04-		OWN	-	-	-	-	-	-	-	-
		IIC-2										
		M1_I4-P3_RF25 / ISI / VT / / 0255-04-										
		IIC-2		PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-H	100013		1.5-6 Boundary	ISI	- B - -	- B - -	s - - -	- - - -	
C7.10	RHR System Loop A		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	- - - -	
2	RHR Loop A	M1_I4-P1_RF22 / ISI / VT / / 0255-04-IIC-1		OWN	- - - -	- - - -	- - - -	- - - -	
		M1_I4-P1_RF22 / ISI / VT / / 0255-04-IIC-3							
		M1_I4-P2_RF24 / ISI / VT / / 0255-04-IIC-1							
		M1_I4-P2_RF24 / ISI / VT / / 0255-04-IIC-3							
		M1_I4-P3_RF25 / ISI / VT / / 0255-04-IIC-1							
		M1_I4-P3_RF25 / ISI / VT / / 0255-04-IIC-3							
				PRE	- - - -	- - - -	- - - -	- - - -	
C-H	100023		1.5-8 Boundary	ISI	- B - -	- B - -	s - - -	- - - -	
C7.10	HPCI		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	- - - -	
2	HPCI	M1_I4-P1_RF22 / ISI / / /		OWN	- - - -	- - - -	- - - -	- - - -	
		M1_I4-P2_RF24 / ISI / VT / / 0255-06-IIC-1							
		M1_I4-P3_RF25 / ISI / VT / / 0255-06-IIC-1							
				PRE	- - - -	- - - -	- - - -	- - - -	
C-H	100025		1.5-10 Boundary	ISI	- B - -	- B - -	s - - -	- - - -	
C7.10	RCIC		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	- - - -	
2	RCIC	M1_I4-P1_RF22 / ISI / / /		OWN	- - - -	- - - -	- - - -	- - - -	
		M1_I4-P2_RF24 / ISI / VT / / 0255-08-IIC-1							
		M1_I4-P3_RF25 / ISI / VT / / 0255-08-IIC-1							
				PRE	- - - -	- - - -	- - - -	- - - -	
C-H	100037		1.5-3 Boundary	ISI	- B - -	- B - -	s - - -	- - - -	
C7.10	Feedwater System		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	- - - -	
2	Feedwater A	M1_I4-P1_RF22 / ISI / / /		OWN	- - - -	- - - -	- - - -	- - - -	
		M1_I4-P2_RF24 / ISI / VT / / 0255-12-IIC-1							
		M1_I4-P3_RF25 / ISI / VT / / 0255-12-IIC-1							
				PRE	- - - -	- - - -	- - - -	- - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-H	100038		1.5-3 Boundary	ISI	- B - -	- B - -	s - - -		
C7.10	Feedwater System	M1_I4-P1_RF22 / ISI / / /	System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -		
2	Feedwater E	M1_I4-P2_RF24 / ISI / VT / / 0255-12-IIC-2		OWN	- - - -	- - - -	- - - -		
		M1_I4-P3_RF25 / ISI / VT / / 0255-12-IIC-2		PRE	- - - -	- - - -	- - - -		
C-H	100044		1.5-21 Boundary	ISI	- B - -	- B - -	s - - -		
C7.10	Drywell Floor Drair	M1_I4-P1_RF22 / ISI / VT / / 0255-16-IIC-1	System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -		
2	Drywell Floor Drair	M1_I4-P2_RF24 / ISI / VT / / 0255-16-IIC-1		OWN	- - - -	- - - -	- - - -		
		M1_I4-P3_RF25 / ISI / VT / / 0255-16-IIC-1		PRE	- - - -	- - - -	- - - -		
C-H	100046		1.5-21 Boundary	ISI	- B - -	- B - -	s - - -		
C7.10	Drywell EQT Drain	M1_I4-P1_RF22 / ISI / / /	System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -		
2	Drywell EQT Drain	M1_I4-P2_RF24 / ISI / VT / / 0255-16-IIC-2		OWN	- - - -	- - - -	- - - -		
		M1_I4-P3_RF25 / ISI / VT / / 0255-16-IIC-2		PRE	- - - -	- - - -	- - - -		
C-H	106300		1.5-13 Boundary	ISI	- t - -	t t - -	t - - -		
C7.10	Pri. Containment Vac. Relie		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -		
2	Pri. Containment Vac. Relie		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -		
				PRE	- - - -	- - - -	- - - -		
C-H	106400		1.5-13 Boundary	ISI	- t - -	t t - -	t - - -		
C7.10	Pri. Containment Air Purge Suppl		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -		
2	Pri. Containment Air Purge Suppl		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -		
				PRE	- - - -	- - - -	- - - -		
C-H	106500		1.5-13 Boundary	ISI	- t - -	t t - -	t - - -		
C7.10	Torus Air Purge Supply		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -		
2	Torus Air Purge Supply		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -		
				PRE	- - - -	- - - -	- - - -		
C-H	106601		1.5-13 Boundary	ISI	- t - -	t t - -	t - - -		
C7.10	PCAC		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -		
2	PCAC		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -		
				PRE	- - - -	- - - -	- - - -		

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
C-H	106700		1.5-13 Boundary	ISI	- t - -	t t - -	t - - -	
C7.10	Standby Gas Treatmen		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	Standby Gas Treatmen		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	
C-H	106800		1.5-13 Boundary	ISI	- t - -	t t - -	t - - -	
C7.10	Torus HPV		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	Torus HPV		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	
C-H	107136		1.5-17 Boundary	ISI	- B - -	- B - -	s - - -	
C7.10	CRDH	M1_I4-P1_RF22 / ISI / VT / / 0255-20-	System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	CRDH	IIC-2		OWN	- - - -	- - - -	- - - -	
		M1_I4-P2_RF24 / ISI / VT / / 0255-20-						
		IIC-2						
		M1_I4-P3_RF25 / ISI / VT / / 0255-20-						
		IIC-2		PRE	- - - -	- - - -	- - - -	
C-H	107140		1.5-19 Boundary	ISI	- t - -	t t - -	t - - -	
C7.10	Compressed Air Systerr		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	Compressed Air		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	
C-H	107144		1.5-20 Boundary	ISI	- t - -	t t - -	t - - -	
C7.10	Demin Water System		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	Demin Water Syterr		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	
C-H	107148		1.5-20 Boundary	ISI	- t - -	t t - -	t - - -	
C7.10	RBCCW		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	RBCCW		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	
C-H	107156		1.5-21 Boundary	ISI	- B - -	- B - -	s - - -	
C7.10	RWCU	M1_I4-P1_RF22 / ISI / VT / / 0255-20-	System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	RWCU	IIC-2		OWN	- - - -	- - - -	- - - -	
		M1_I4-P2_RF24 / ISI / VT / / 0255-20-						
		IIC-2						
		M1_I4-P3_RF25 / ISI / VT / / 0255-20-						
		IIC-2		PRE	- - - -	- - - -	- - - -	
C-H	107164		1.5-22 Boundary	ISI	- t - -	t t - -	t - - -	
C7.10	Tranversing In-Core Probe System		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	
2	Tranversing In-Core Probe System		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
C-H	107172		1.5-23 Boundary	ISI	- t - -	t t - -	t - - -	- - - -	
C7.10	Excess-Flow Check Valves		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	- - - -	
2	Excess-Flow Check Valves		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	- - - -	
C-H	107176		1.5-26 Boundary	ISI	- t - -	t t - -	t - - -	- - - -	
C7.10	PC Sample System		System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	- - - -	
2	Primary Containment Sample System		N-522,N-522,N-522,N-522	OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	- - - -	
C-H	107607	M1_I4-P2_RF24 / ISI / VT / / 0255-03-	1.5-5 Boundary	ISI	- B - -	- B - -	s - - -	- - - -	
C7.10	Core Spray System Loop F	IIC-2	System Leakage Pressure Tes	AUG	- - - -	- - - -	- - - -	- - - -	
2	Core Spray Loop E	M1_I4-P3_RF25 / ISI / VT / / 0255-03-		OWN	- - - -	- - - -	- - - -	- - - -	
		IIC-2		PRE	- - - -	- - - -	- - - -	- - - -	
D-A	102756		nd-isi-101	ISI	- - - -	- - - -	- - - -	- - - -	
D1.20	SS-562		Dbl Strut / Snubber	AUG	- - - -	- - - -	- - - -	- - - -	
3	RHR Service Water			OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	- - - -	
D-A	102757		nd-isi-101	ISI	- - - -	- - - -	- - - -	- - - -	
D1.20	SWH-43		Stanchion	AUG	- - - -	- - - -	- - - -	- - - -	
3	RHR Service Water			OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	- - - -	
D-A	102758		nd-isi-102	ISI	- - - -	- - - -	- - - -	- - - -	
D1.20	SR-79		Seismic Restraint	AUG	- - - -	- - - -	- - - -	- - - -	
3	RHR Service Water			OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	- - - -	
D-A	102759		nd-isi-102	ISI	- - - -	- - - -	- - - -	- - - -	
D1.20	SWH-304		Double Spring	AUG	- - - -	- - - -	- - - -	- - - -	
3	RHR Service Water			OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	- - - -	
D-A	102760		nd-isi-103	ISI	- - - -	- - - -	- - - -	- - - -	
D1.20	SR-459		Seismic Restraint	AUG	- - - -	- - - -	- - - -	- - - -	
3	RHR Service Water			OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- - - -	- - - -	- - - -	
D-A	102761		nd-isi-106	ISI	- - - -	- - - -	- - - -	- - - -	
D1.20	SR-457	M1_I4-P2_RF24 / PSI / VT / VT-1 / FP	Anchor	AUG	- - - -	- - - -	- - - -	- - - -	
3	RHR Service Water	PE-NDE-510		OWN	- - - -	- - - -	- - - -	- - - -	
				PRE	- - - -	- c - -	- - - -	- - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
D-A	102762		nd-isi-107	ISI	-	-	-	-	-
D1.20	SR-105	M1_I4-P2_RF24 / PSI / VT / VT-1 / FP	Stanchion	AUG	-	-	-	-	-
3	RHR Service Water	PE-NDE-510		OWN	-	-	-	-	-
				PRE	-	-	c	-	-
D-A	102763		nd-isi-107	ISI	-	-	-	-	-
D1.20	SWH-72A		Stanchion	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
D-A	102764		nd-isi-107	ISI	-	-	-	-	-
D1.20	SWH-72B		Stanchion	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
D-A	102765		nd-isi-108	ISI	-	-	-	-	s
D1.20	IS-SWH-65	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Stanchion	AUG	-	-	-	-	-
3	RHR Service Water	NDE-510		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
D-A	102766		nd-isi-108	ISI	-	-	-	-	-
D1.20	IS-SWH-66		Stanchion	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
D-A	102767		nd-isi-108	ISI	c	r	-	-	-
D1.20	SR-106	M1_I4-P1_RF21 / ISI / VT / / PEI-	Stanchion	AUG	-	-	-	-	-
3	RHR Service Water	02.05.01		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
D-A	102768		nd-isi-109	ISI	-	-	-	-	-
D1.20	SR-458		Anchor	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
D-A	102769		nd-isi-111	ISI	-	-	-	-	-
D1.20	SR-88		Stanchion	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
D-B	100021	M1_I4-P1_RF22 / ISI / VT / / 0255-05-1.5-16 Boundary		ISI	-	B	-	-	c
D2.10	RHR SW Div. I	IIC-1	System Leakage Pressure Tes	AUG	-	-	-	-	-
3	RHR SW A	M1_I4-P2_RF24 / ISI / VT / / 0255-05-<No Code Case,<No Code Cas	IIC-1	OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3									
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011									
D-B	100022	M1_I4-P1_RF22 / ISI / VT / / 0255-05-	1.5-16 Boundary	ISI	-	B	-	-	-	c	-	-	-	-	-	-	-
D2.10	RHR SW Div. II	IIC-2	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
3	RHR SW B	M1_I4-P2_RF24 / ISI / VT / / 0255-05-	<No Code Case,<No Code Cas	OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
		IIC-2		PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
D-B	100031	M1_I4-P1_RF22 / ISI / VT / / 0255-11-	1.5-14 Boundary	ISI	-	B	-	-	-	c	-	-	-	-	-	-	-
D2.10	EDG-ESW A Div 1	IIC-3-1	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
3	EDG-ESW A	M1_I4-P1_RF22 / ISI / VT / / 0255-11-	<No Code Case	OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
		IIC-3-2		PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF24 / ISI / VT / / 0255-11-															
		IIC-3-1															
		M1_I4-P2_RF24 / ISI / VT / / 0255-11-															
		IIC-3-2															
D-B	100032	M1_I4-P1_RF22 / ISI / VT / / 0255-11-	1.5-15 Boundary	ISI	-	B	-	-	-	c	-	-	-	-	-	-	-
D2.10	EDG-ESW B Div. II	IIC-4-1	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
3	EDG-ESW B	M1_I4-P1_RF22 / ISI / VT / / 0255-11-	<No Code Case,<No Code Cas	OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
		IIC-4-2		PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF24 / ISI / VT / / 0255-11-															
		IIC-4-1															
		M1_I4-P2_RF24 / ISI / VT / / 0255-11-															
		IIC-4-2															
D-B	100033	M1_I4-P1_RF22 / ISI / VT / / 0255-11-	1.5-14 Boundary	ISI	-	B	-	-	-	c	-	-	-	-	-	-	-
D2.10	ESW A Div. 1	IIC-1	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
3	ESW A	M1_I4-P2_RF24 / ISI / VT / / 0255-11-	<No Code Case,<No Code Cas	OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
		IIC-1		PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
D-B	100034	M1_I4-P1_RF22 / ISI / VT / / 0255-11-	1.5-15 Boundary	ISI	-	B	-	-	-	c	-	-	-	-	-	-	-
D2.10	ESW B Div. II	IIC-2	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
3	ESW B	M1_I4-P2_RF24 / ISI / VT / / 0255-11-	<No Code Case,<No Code Cas	OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
		IIC-2		PRE	-	-	-	-	-	-	-	-	-	-	-	-	-
D-B	107102	M1_I4-P1_RF22 / ISI / VT / / 0255-06-	1.5-8 Boundary	ISI	-	B	-	-	-	c	-	-	-	-	-	-	-
D2.10	HPCI	IIC-1	System Leakage Pressure Tes	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-
3	HPCI	M1_I4-P2_RF24 / ISI / VT / / 0255-06-	<No Code Case	OWN	-	-	-	-	-	-	-	-	-	-	-	-	-
		IIC-1		PRE	-	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
D-B D2.10 3	107111 RCIC RCIC	M1_I4-P1_RF22 / ISI / VT / / 0255-08- IIC-1 M1_I4-P2_RF24 / ISI / VT / / 0255-08- IIC-1	1.5-10 Boundary System Leakage Pressure Tes <No Code Case	ISI AUG OWN PRE	- B - - - - - - - - - - - - - -	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
D-B D2.20 3	100017 RHR SW Div. I RHR SW A	M1_I4-P3_RF25 / ISI / VT / / 0255-05- IIC-1	1.5-16 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	
D-B D2.20 3	100020 RHR SW Div. II RHR SW B	M1_I4-P3_RF25 / ISI / VT / / 0255-05- IIC-2	1.5-16 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	
D-B D2.20 3	100027 EDG-ESW A Div. I EDG-ESW A	M1_I4-P3_RF25 / ISI / VT / / 0255-11- IIC-3-1 M1_I4-P3_RF25 / ISI / VT / / 0255-11- IIC-3-2	1.5-14 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	
D-B D2.20 3	100028 EDG-ESW B Div. II EDG-ESW B	M1_I4-P3_RF25 / ISI / VT / / 0255-11- IIC-4-1 M1_I4-P3_RF25 / ISI / VT / / 0255-11- IIC-4-2	1.5-15 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	
D-B D2.20 3	100029 ESW A Div. I ESW A	M1_I4-P3_RF25 / ISI / VT / / 0255-11- IIC-1	1.5-14 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	
D-B D2.20 3	100030 ESW B Div. II ESW B	M1_I4-P3_RF25 / ISI / VT / / 0255-11- IIC-2	1.5-15 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	
D-B D2.20 3	107597 HPCI HPCI	M1_I4-P3_RF25 / ISI / VT / / 0255-06- IIC-1	1.5-8 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	
D-B D2.20 3	107598 RCIC RCIC	M1_I4-P3_RF25 / ISI / VT / / 0255-08- IIC-1	1.5-10 Boundary Hydrostatic Pressure Tes N-498-4	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	100427		ISI-13142-26-A	ISI	-	-	-	-	-	-	-	-
F1.10a	H- 1	M1_I4-P2_RF24 / ISI / VT / / FP-PE-	Restraint / Clamp	AUG	-	-	-	-	-	-	-	-
1	Core Spray B	NDE-530		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	100428		ISI-13142-26-A	ISI	-	-	-	-	-	-	-	-
F1.10a	H- 2		Restraint Slide	AUG	-	-	-	-	-	-	-	-
1	Core Spray B			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	101361		ISI-73880-A	ISI	-	-	-	-	-	-	-	-
F1.10a	H- 2		Box Restraint	AUG	-	-	-	-	-	-	-	-
1	Reactor Wtr Cleanup			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	101420		ISI-74215A	ISI	-	-	-	-	-	-	-	-
F1.10a	H- 1		Box Restraint	AUG	-	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	101421		ISI-74215A	ISI	-	-	-	-	-	-	-	-
F1.10a	H- 2		Box Restraint	AUG	-	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	101422		ISI-74215A	ISI	-	-	-	-	-	-	-	s
F1.10a	H- 3	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Box Restraint	AUG	-	-	-	-	-	-	-	-
1	Standby Liquid Cntr	NDE-530		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	101423		ISI-74215A	ISI	-	-	-	-	-	-	-	-
F1.10a	H- 4		Box Restraint	AUG	-	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	101460		ISI-782A	ISI	-	-	-	-	-	-	-	-
F1.10a	H- 1		Hanger	AUG	-	-	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	101461		ISI-782A	ISI	-	c	-	-	-	-	-	-
F1.10a	H- 2	M1_I4-P1_RF22 / ISI / VT / / PEI-	Hanger	AUG	-	-	-	-	-	-	-	-
1	Head Vent	02.05.02		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3		
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	101520		ISI-786A	ISI	B	-	-	-	-	-	-
F1.10a	H- 1	M1_I4-P1_RF21 / ISI / VT / / PEI-	Box Support	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof	02.05.02		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101521		ISI-786A	ISI	-	-	-	-	-	-	-
F1.10a	H- 2		Box Support	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101522		ISI-786A	ISI	-	c	-	-	-	-	-
F1.10a	H- 3	M1_I4-P1_RF22 / ISI / VT / / PEI-	Linear Support	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof	02.05.02		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101523		ISI-786A	ISI	-	-	-	-	-	-	-
F1.10a	H- 4		Box Support	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101618		ISI-821A	ISI	-	-	-	-	-	s	-
F1.10a	H- 2	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Box Restraint	AUG	-	-	-	-	-	-	-
1	Bottom Head Drair	NDE-530		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101620		ISI-821A	ISI	-	-	-	-	-	-	-
F1.10a	H- 4		Box Restraint	AUG	-	-	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101621		ISI-821A	ISI	-	-	-	-	-	-	-
F1.10a	H- 5		Box Restraint	AUG	-	-	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101622		ISI-821A	ISI	-	-	-	-	-	-	-
F1.10a	H- 6		Box Restraint	AUG	-	-	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101974		ISI-97005-A	ISI	-	-	-	-	-	-	-
F1.10a	H- 1		Seismic Restraint	AUG	-	-	-	-	-	-	-
1	Recirculation A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3						
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011						
F-A	101980		ISI-97005-A	ISI	-	-	-	-	-	-	-	s	-	-	-
F1.10a	H- 4	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Seismic Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirculation A	NDE-530		OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	101988		ISI-97005-A	ISI	E	-	-	-	-	-	-	-	-	-	-
F1.10a	H- 9	M1_I4-P1_RF21 / ISI / VT / / PEI-	Seismic Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirculation A	02.05.02		OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	101991		ISI-97005-A	ISI	E	-	-	-	-	-	-	-	-	-	-
F1.10a	H-12	M1_I4-P1_RF21 / ISI / VT / / PEI-	Seismic Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirculation A	02.05.02		OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	102018		ISI-97005-B	ISI	-	-	-	-	-	c	-	-	-	-	-
F1.10a	H- 1	M1_I4-P2_RF24 / ISI / VT / / FP-PE-	Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold A	NDE-530		OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	102020		ISI-97005-B	ISI	-	-	-	-	-	-	-	-	-	-	-
F1.10a	H- 3		Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	102021		ISI-97005-B	ISI	-	-	-	-	-	-	-	s	-	-	-
F1.10a	H- 4	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold A	NDE-530		OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	102022		ISI-97005-B	ISI	-	-	-	-	-	-	-	-	-	-	-
F1.10a	H- 5		Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	102024		ISI-97005-B	ISI	-	-	-	-	-	-	-	-	-	-	-
F1.10a	H- 7		Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-
F-A	102025		ISI-97005-B	ISI	-	-	-	-	-	-	-	-	-	-	-
F1.10a	H- 8		Restraint	AUG	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.10a 1	102026 H- 9 Recirc Manifold A		ISI-97005-B Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102027 H-10 Recirc Manifold A	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-97005-B Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102030 H-13 Recirc Manifold A		ISI-97005-B Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102079 H- 1 Recirculation B		ISI-97006-A Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102085 H- 4 Recirculation B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97006-A Restraint	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102092 H- 9 Recirculation B		ISI-97006-A Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102098 H-12 Recirculation B		ISI-97006-A Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102124 H- 1 Recirc Manifold B		ISI-97006-B Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10a 1	102130 H- 4 Recirc Manifold B		ISI-97006-B Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.10a 1	102131 H- 3 Recirc Manifold B		ISI-97006-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
F-A F1.10a 1	102132 H- 6 Recirc Manifold B	M1_I4-P1_RF22 / ISI / VT / / PEI- 02.05.02	ISI-97006-B Restraint	ISI AUG OWN PRE	- - - -	c - - -	- - - -	- - - -
F-A F1.10a 1	102133 H- 7 Recirc Manifold B		ISI-97006-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
F-A F1.10a 1	102134 H- 8 Recirc Manifold B		ISI-97006-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
F-A F1.10a 1	102135 H- 9 Recirc Manifold B		ISI-97006-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
F-A F1.10a 1	102137 H-11 Recirc Manifold B		ISI-97006-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
F-A F1.10a 1	102139 H-13 Recirc Manifold B	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-97006-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -
F-A F1.10a 1	105019 H- 5 Head Vent		ISI-782A Hanger	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
F-A F1.10a 1	105020 H-5A Head Vent	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-782A Hanger	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.10b 1	100579 H- 3 Main Steam A	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-33-A Snubber / Clamp	ISI AUG OWN PRE	- - - c	- - - -	- - - -	- - - -	- - - -
F-A F1.10b 1	100582 H- 6 Main Steam A	M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02 M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02	ISI-13142-33-A Snubber / Clamp	ISI AUG OWN PRE	- - - -	- - - B	c - - B	- - - -	- - - -
F-A F1.10b 1	100583 H- 7 Main Steam A	M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / PSI / VT / / FP-PE- NDE-530	ISI-13142-33-A Snubber / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - c	- - - -	- - - b
F-A F1.10b 1	100631 H- 2 Main Steam B	M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / PSI / VT / / FP-PE- NDE-530	ISI-13142-34-A Snubber / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - c	- - - -	- - - b
F-A F1.10b 1	100632 H- 3 Main Steam B	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-34-A Snubber / Clamp	ISI AUG OWN PRE	- - - H	- - - -	- - - -	- - - -	- - - -
F-A F1.10b 1	100682 H- 2 Main Steam C	M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02	ISI-13142-35-A Snubber / Clamp	ISI AUG OWN PRE	- - - -	- - - c	- - - B	- - - -	- - - -
F-A F1.10b 1	100683 H- 3 Main Steam C	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02	ISI-13142-35-A Snubber / Clamp	ISI AUG OWN PRE	- - - -	c - - B	- - - B	- - - -	- - - -
F-A F1.10b 1	100737 H- 2 Main Steam C	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-36-A Snubber / Clamp	ISI AUG OWN PRE	- - - c	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	100740		ISI-13142-36-A	ISI	- - - -	- - - -	- - - -	- - - -
F1.10b	H- 5	M1_I4-P1_RF22 / PSI / VT / / PEI-	Snubber / Clamp	AUG	- - - -	- - - -	- - - -	- - - -
1	Main Steam C	02.05.02		OWN	- - - -	- - - -	- - - -	- - - -
				PRE	- B - -	- - - -	- - - -	- - - -
F-A	100741		ISI-13142-36-A	ISI	- - - -	- - - -	- - - -	s - - -
F1.10b	H- 6	M1_I4-P1_RF21 / PSI / VT / / PEI-	Snubber / Clamp	AUG	- - - -	- - - -	- - - -	- - - -
1	Main Steam C	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530		OWN	- - - -	- - - -	- - - -	- - - -
				PRE	H - - -	- - - -	- - - -	- - - -
F-A	101042		ISI-13142-43-A	ISI	- - - -	- - - -	- - - -	- - - -
F1.10b	H- 2		Strut / Clamp	AUG	- - - -	- - - -	- - - -	- - - -
1	RCIC Steam			OWN	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -
F-A	101198		ISI-13142-52-A	ISI	- - - -	- - - -	- - - -	- - - -
F1.10b	H- 4	M1_I4-P2_RF23 / PSI / VT / / PEI-	Snubber / Clamp	AUG	- - - -	- - - -	- - - -	- - - -
1	Feedwater	02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530		OWN	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	c B - -	- - - -	- - - -
F-A	101201		ISI-13142-52-A	ISI	- - - -	- - - -	- - - -	- - - -
F1.10b	H- 7	M1_I4-P2_RF23 / PSI / VT / / PEI-	Snubber / Clamp	AUG	- - - -	- - - -	- - - -	- - - -
1	Feedwater	02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530		OWN	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	c B - -	- - - -	- - - -
F-A	101253		ISI-13142-53-A	ISI	- c - -	- - - -	- - - -	- - - -
F1.10b	H- 5	M1_I4-P2_RF23 / PSI / VT / / PEI-	Snubber / Clamp	AUG	- - - -	- - - -	- - - -	- - - -
1	Feedwater	02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530		OWN	- - - -	- - - -	- - - -	- - - -
				PRE	- t - -	c B - -	- - - -	- - - -
F-A	101255		ISI-13142-53-A	ISI	- - - -	- - - -	- - - -	- - - -
F1.10b	H- 7	M1_I4-P2_RF23 / PSI / VT / / PEI-	Snubber / Clamp	AUG	- - - -	- - - -	- - - -	- - - -
1	Feedwater	02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530		OWN	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	c B - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3		
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	101855		ISI-97003-A	ISI	-	-	-	-	-	-	-
F1.10b	H-3	M1_I4-P1_RF21 / PSI / VT / / PEI-02.05.02	Snubber / Clamp	AUG	-	-	-	-	-	-	-
1	RHR Return A	M1_I4-P1_RF22 / PSI / VT / / PEI-02.05.02		OWN	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / PSI / VT / / PEI-02.05.02			-	-	-	-	-	-	-
		M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02			-	-	-	-	-	-	-
		M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02		PRE	c	B	-	-	B	-	-
F-A	101856		ISI-97003-A	ISI	-	-	-	-	-	-	-
F1.10b	H-4		Snubber / Clamp	AUG	-	-	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101896		ISI-97003-B	ISI	-	-	-	-	-	-	-
F1.10b	H-2	M1_I4-P1_RF22 / PSI / VT / / PEI-02.05.02	Snubber / Clamp	AUG	-	-	-	-	-	-	-
1	RHR Suction A	M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02		OWN	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02			-	-	-	-	-	-	-
		M1_I4-P2_RF24 / PSI / VT / / FP-PE-NDE-530			-	-	-	-	-	-	-
				PRE	-	c	-	-	B	B	-
F-A	101897		ISI-97003-B	ISI	-	-	-	-	-	-	-
F1.10b	H-3		Snubber / Clamp	AUG	-	-	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101935		ISI-97004-A	ISI	-	-	-	-	-	-	-
F1.10b	H-3	M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02	Snubber / Clamp	AUG	-	-	-	-	-	-	-
1	RHR Return B	M1_I4-P2_RF24 / PSI / VT / / FP-PE-NDE-530		OWN	-	-	-	-	-	-	-
					-	-	-	-	-	-	-
				PRE	-	-	-	-	c	B	-
F-A	101936		ISI-97004-A	ISI	-	-	-	-	-	-	-
F1.10b	H-4	M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02	Snubber / Clamp	AUG	-	-	-	-	-	-	-
1	RHR Return B	M1_I4-P2_RF24 / ISI / VT / / FP-PE-NDE-530		OWN	-	-	-	-	-	-	-
		M1_I4-P2_RF24 / PSI / VT / / FP-PE-NDE-530			-	-	-	-	-	-	-
				PRE	-	-	-	-	c	B	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.10b 1	102195 H-2 RHR Equalizer		ISI-97027-A Snubber / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10b 1	102196 H-3 RHR Equalizer	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-97027-A Snubber / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.10b 1	105051 H-8 Bottom Head Drair		ISI-821A Strut / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10b 1	107528 H-8 Recirculation A	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02 M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530	ISI-97005-A Snubber / Lugs	ISI AUG OWN PRE	- r - - - - - - - - - - - c - -	c - - - - - - - - - - - B B - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10b 1	107530 H-2 Recirc Manifold A	M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / PSI / VT / / FP-PE- NDE-530	ISI-97005-B Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - b - - -	- - - - - - - - - - - - - - - -
F-A F1.10b 1	107533 H-12 Recirc Manifold A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97005-B Snubber / Lugs	ISI AUG OWN PRE	B - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10b 1	107547 H-8 Recirculation B	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-97006-A Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - t - -	- - - - - - - - - - - - c B - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	107549		ISI-97006-B	ISI	-	-	-	-
F1.10b	H- 2	M1_I4-P1_RF21 / PSI / VT / / PEI-	Snubber / Lugs	AUG	-	-	-	-
1	Recirc Manifold B	02.05.02		OWN	-	-	-	-
				PRE	c	-	-	-
F-A	107552		ISI-97006-B	ISI	-	-	-	-
F1.10b	H-12	M1_I4-P1_RF21 / PSI / VT / / PEI-	Snubber	AUG	-	-	-	-
1	Recirc Manifold B	02.05.02		OWN	-	-	-	-
		M1_I4-P1_RF21 / PSI / VT / / PEI-		PRE	c	-	-	-
		02.05.02						
F-A	100495		ISI-13142-31-A	ISI	-	-	-	-
F1.10c	H- 1		Spring / Clamp	AUG	-	-	-	-
1	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100496		ISI-13142-31-A	ISI	-	-	c	-
F1.10c	H- 2	M1_I4-P2_RF24 / ISI / VT / / FP-PE-	Spring / Clamp	AUG	-	-	-	-
1	Core Spray A	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100580		ISI-13142-33-A	ISI	-	r	-	s
F1.10c	H- 4	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Variable / Spring	AUG	-	-	-	-
1	Main Steam A	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100581		ISI-13142-33-A	ISI	-	-	-	-
F1.10c	H- 5		Spring / Clamp	AUG	-	-	-	-
1	Main Steam A			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100633		ISI-13142-34-A	ISI	-	-	-	-
F1.10c	H- 4		Spring / Clamp	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100684		ISI-13142-35-A	ISI	-	-	-	s
F1.10c	H- 4	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Spring / Clamp	AUG	-	-	-	-
1	Main Steam C	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100738		ISI-13142-36-A	ISI	-	-	-	-
F1.10c	H- 3		Spring / Clamp	AUG	-	-	-	-
1	Main Steam C			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.10c 1	100739 H- 4 Main Steam C		ISI-13142-36-A Variable / Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	100975 H- 1 HPCI Steam		ISI-13142-42-A Variable Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	101041 H- 1 RCIC Steam	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-43-A Variable Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	101194 H- 1 Feedwater		ISI-13142-52-A Spring / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	101196 H- 2 Feedwater		ISI-13142-52-A Variable / Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	101199 H- 5 Feedwater		ISI-13142-52-A Spring / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	101200 H- 6 Feedwater	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-52-A Spring / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	s - - -
F-A F1.10c 1	101249 H- 1 Feedwater		ISI-13142-53-A Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	101250 H- 2 Feedwater		ISI-13142-53-A Variable / Spring	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.10c 1	101252 H- 4 Feedwater		ISI-13142-53-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101254 H- 6 Feedwater		ISI-13142-53-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101360 H- 1 Reactor Wtr Cleanup		ISI-73880-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101617 H- 1 Bottom Head Drair		ISI-821A Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101619 H- 3 Bottom Head Drair		ISI-821A Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101623 H- 7 Bottom Head Drair	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-821A Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.10c 1	101853 H- 1 RHR Return A		ISI-97003-A Variable Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101854 H- 2 RHR Return A		ISI-97003-A Variable Spring	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101895 H- 1 RHR Suction A		ISI-97003-B Variable Spr / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.10c 1	101898 H- 4 RHR Suction A		ISI-97003-B Variable Slide/Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101899 H- 5 RHR Suction A		ISI-97003-B Variable Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101933 H- 1 RHR Return B		ISI-97004-A Variable / Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101934 H- 2 RHR Return B	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-97004-A Variable/Slide/Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101975 H-11 Recirculation A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97005-A Sway Brace	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	101978 H- 3 Recirculation A		ISI-97005-A Sway Brace	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	102080 H- 2 Recirculation B		ISI-97006-A Sway Brace	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	102096 H-11 Recirculation B		ISI-97006-A Sway Brace	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	102194 H- 1 RHR Equalizer		ISI-97027-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	102197		ISI-97027-A	ISI	-	-	-	-	s	-	-	-
F1.10c	H- 4	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Spring / Clamp	AUG	-	-	-	-	-	-	-	-
1	RHR Equalizer	NDE-530		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	105022		ISI-782A	ISI	-	-	-	-	c	-	-	-
F1.10c	H-17	M1_I4-P2_RF23 / ISI / VT / / PEI-	Spring / Clamp	AUG	-	-	-	-	-	-	-	-
1	Head Vent	02.05.02		OWN	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / PSI / VT / / PEI-										
		02.05.02										
		M1_I4-P2_RF24 / PSI / VT / / FP-PE-										
		NDE-530		PRE	-	-	-	-	c	B	-	-
F-A	105024		ISI-782A-A	ISI	-	-	-	-	-	-	-	-
F1.10c	H- 2	M1_I4-P1_RF21 / PSI / VT / / PEI-	Spring / Clamp	AUG	-	-	-	-	-	-	-	-
1	Head Vent	02.05.02		OWN	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / PSI / VT / / PEI-										
		02.05.02										
		M1_I4-P2_RF23 / PSI / VT / / PEI-										
		02.05.02										
		M1_I4-P2_RF24 / PSI / VT / / FP-PE-										
		NDE-530										
		M1_I4-P3_RF25 / PSI / VT / / FP-PE-										
		NDE-530		PRE	B	B	-	-	B	B	-	-
F-A	107511		ISI-13142-33-A	ISI	c	-	-	-	-	-	-	-
F1.10c	H- 1	M1_I4-P1_RF21 / ISI / VT / / PEI-	Dbl Spring / 4 Lugs	AUG	-	-	-	-	-	-	-	-
1	Main Steam A	02.05.02		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	107512		ISI-13142-33-A	ISI	-	-	-	-	-	-	-	-
F1.10c	H- 8		Dbl Spring / 4 Lugs	AUG	-	-	-	-	-	-	-	-
1	Main Steam A			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	107513		ISI-13142-34-A	ISI	c	-	-	-	-	-	-	-
F1.10c	H- 1	M1_I4-P1_RF21 / ISI / VT / / PEI-	Dbl Spring / 4 Lugs	AUG	-	-	-	-	-	-	-	-
1	Main Steam B	02.05.02		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.10c 1	107514 H- 5 Main Steam B		ISI-13142-34-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107515 H- 1 Main Steam C		ISI-13142-35-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107516 H- 5 Main Steam C	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-35-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107517 H- 1 Main Steam C		ISI-13142-36-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107518 H- 7 Main Steam C		ISI-13142-36-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107519 H- 3 Feedwater	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-52-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	r - - -	- - - -	- - - -	- - - -	s - - -
F-A F1.10c 1	107520 H- 8 Feedwater		ISI-13142-52-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107521 H- 3 Feedwater		ISI-13142-53-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107522 H- 8 Feedwater	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-530	ISI-13142-53-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	c - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.10c 1	107523 H- 3 Reactor Wtr Cleanup	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-73880-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107524 H- 2 Recirculation A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97005-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	E - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107525 H- 5 Recirculation A		ISI-97005-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107526 H- 6 Recirculation A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97005-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107527 H- 7 Recirculation A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97005-A Double Spring	ISI AUG OWN PRE	E - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107529 H-10 Recirculation A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97005-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107531 H- 6 Recirc Manifold A		ISI-97005-B Spring / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107532 H-11 Recirc Manifold A		ISI-97005-B Spring / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.10c 1	107543 H- 3 Recirculation B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97006-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.10c 1	107544 H- 5 Recirculation B		ISI-97006-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107545 H- 6 Recirculation B		ISI-97006-A Clevis / Lugs / Constant-Suppor	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107546 H- 7 Recirculation B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97006-A Dbl Spring / Lugs	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107548 H-10 Recirculation B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-97006-A Dbl Spring	ISI AUG OWN PRE	E - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107550 H- 5 Recirc Manifold B		ISI-97006-B Spring / Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.10c 1	107551 H-10 Recirc Manifold B		ISI-97006-B Spring / Lugs	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20a 2	100098 H- 1 HPCI Water Side Sctn	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-13142-17-B Rod / Clevis	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -	- - - -	- - - -
F-A F1.20a 2	100100 H- 3 HPCI Water Side Sctn		ISI-13142-17-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20a 2	100101 H- 4 HPCI Water Side Sctn		ISI-13142-17-B Restraint	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20a 2	100169 H- 2 RHR Discharge B		ISI-13142-18-A Box Restrainl	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100171 H- 4 RHR Discharge B	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-18-A Box Restrainl	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.20a 2	100176 H-11 RHR Discharge B		ISI-13142-18-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100364 H- 4 Core Spray B		ISI-13142-20-B Variable / Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100365 H- 5 Core Spray B	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-13142-20-B Variable / Suppor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100876 H- 2 HPCI Water Side Dsch		ISI-13142-40-A Box Restrainl	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100877 H- 3 HPCI Water Side Dsch		ISI-13142-40-A Rod / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100880 H- 6 HPCI Water Side Dsch		ISI-13142-40-A Rod / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100881 H- 7 HPCI Water Side Dsch		ISI-13142-40-A Rod / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.20a 2	100883 H- 9 HPCI Water Side Dsch		ISI-13142-40-A Rod / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100884 H-10 HPCI Water Side Dsch		ISI-13142-40-A Rod / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100885 H-11 HPCI Water Side Dsch	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-40-A Rod / Clamp	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100886 H-12 HPCI Water Side Dsch		ISI-13142-40-A Rod / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100888 H-14 HPCI Water Side Dsch		ISI-13142-40-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100912 H- 1 HPCI Water Side Dsch		ISI-13142-40-B Rod / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100914 H- 3 HPCI Water Side Dsch		ISI-13142-40-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	100916 H- 5 HPCI Water Side Dsch	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02 M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02 M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-40-B Box Restraint	ISI AUG OWN PRE	E - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	100986		ISI-13142-42-A	ISI	-	-	-	-	-	-
F1.20a	H-10		Rod / Clamp	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	100988		ISI-13142-42-A	ISI	-	-	-	-	-	-
F1.20a	H-12		Box RestrainI	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	101708		ISI-93268-1A	ISI	-	-	-	-	-	-
F1.20a	H- 7		Box RestrainI	AUG	-	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	101711		ISI-93268-1A	ISI	-	-	-	-	-	-
F1.20a	H-10		Restraint	AUG	-	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	101712		ISI-93268-1A	ISI	c	-	-	-	-	-
F1.20a	H-11	M1_14-P1_RF21 / ISI / VT / / PEI-	Rod / Clamp	AUG	-	-	-	-	-	-
2	CRD Scram Header A	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	101802		ISI-93268-3A	ISI	-	-	-	-	-	-
F1.20a	H- 5		Box RestrainI	AUG	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	101803		ISI-93268-3A	ISI	-	-	-	-	-	-
F1.20a	H- 6		Rod / Clamp	AUG	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	101806		ISI-93268-3A	ISI	-	-	-	-	-	-
F1.20a	H- 8		Box RestrainI	AUG	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	101812		ISI-93268-3A	ISI	-	-	-	-	-	-
F1.20a	H-13		Box RestrainI	AUG	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20a 2	106811 H- 2 RCIC Steam Discharge		ISI-13142-19-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
F-A F1.20a 2	106812 H- 3 RCIC Steam Discharge		ISI-13142-19-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
F-A F1.20a 2	106813 H- 4 RCIC Steam Discharge		ISI-13142-19-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
F-A F1.20a 2	106814 H- 5 RCIC Steam Discharge	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-19-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
F-A F1.20a 2	106815 H- 6 RCIC Steam Discharge		ISI-13142-19-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
F-A F1.20a 2	106821 H- 2 CORE SPRAY B		ISI-13142-26-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
F-A F1.20a 2	106822 H- 3 CORE SPRAY B		ISI-13142-26-B SEISMIC RESTRAINT HANGER	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
F-A F1.20a 2	106823 H- 4 CORE SPRAY B		ISI-13142-26-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
F-A F1.20a 2	106824 H- 5 CORE SPRAY B		ISI-13142-26-B SEISMIC RESTRAINT HANGER	ISI AUG OWN PRE	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	106825		ISI-13142-26-B	ISI	-	-	-	-
F1.20a	H- 6	M1_I4-P2_RF23 / ISI / VT / / PEI-	RESTRAINT HANGER TWH-121	AUG	-	-	-	-
2	CORE SPRAY B	02.05.02		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106826		ISI-13142-26-B	ISI	-	-	-	-
F1.20a	H- 7		SEISMIC RESTRAINT SR-646	AUG	-	-	-	-
2	CORE SPRAY B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106827		ISI-13142-26-B	ISI	-	-	-	-
F1.20a	H- 8		RESTRAINT HANGER TWH-102	AUG	-	-	-	-
2	CORE SPRAY B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106830		ISI-13142-26-C	ISI	-	-	-	-
F1.20a	H- 1		Restraint Hanger	AUG	-	-	-	-
2	CORE SPRAY B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106831		ISI-13142-26-C	ISI	-	-	-	-
F1.20a	H- 2		Seismic Restraint	AUG	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106832		ISI-13142-26-C	ISI	c	r	-	-
F1.20a	H- 3	M1_I4-P1_RF21 / ISI / VT / / PEI-	Restraint Hanger	AUG	-	-	-	-
2	Core Spray B Discharge	02.05.02		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106833		ISI-13142-26-C	ISI	-	-	-	-
F1.20a	H- 4		Seismic Restraint	AUG	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106834		ISI-13142-26-C	ISI	-	-	-	-
F1.20a	H- 5		SEISMIC RESTRAINT SR-647	AUG	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106835		ISI-13142-26-C	ISI	-	-	-	-
F1.20a	H- 6		Restraint Hanger	AUG	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.20a 2	106836 H- 7 Core Spray B Discharge	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-26-C Seismic Restraint	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106837 H- 8 Core Spray B Discharge		ISI-13142-26-C Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106838 H- 9 Core Spray B Discharge	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02	ISI-13142-26-C Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106847 H- 1 Core Spray B Discharge		ISI-13142-26-D Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106850 H-1A Core Spray A Discharge	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-31-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
F-A F1.20a 2	106851 H-1B Core Spray A Discharge	M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530	ISI-13142-31-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106852 H-1C Core Spray A Discharge		ISI-13142-31-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106853 H-1D Core Spray A Discharge		ISI-13142-31-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106854 H-1E Core Spray A Discharge		ISI-13142-31-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	106860		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 1		Restraint Hangei	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106861		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 2		Seismic Restraint	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106862		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 3		Restraint Hangei	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106863		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 4		Seismic Restraint	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106864		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 5		Restraint Hangei	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106865		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 6		Seismic Restraint	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106866		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 7		Restraint Hangei	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106867		ISI-13142-31-C	ISI	-	-	-	-	-	-
F1.20a	H- 8		Restraint Hangei	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	106880		ISI-13142-31-D	ISI	-	-	-	-	-	-
F1.20a	H- 1		Restraint Hangei	AUG	-	-	-	-	-	-
2	Core Spray A Discharge			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20a 2	106881 H- 2 Core Spray A Discharge	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02	ISI-13142-31-D Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106890 H- 1 RCIC WATER SUCTION		ISI-13142-41-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106891 H- 2 RCIC WATER SUCTION		ISI-13142-41-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106895 H- 1 RHR SERVICE WATER		ISI-13142-48-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106896 H- 2 RHR SERVICE WATER	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02 M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-48-A Restraint Hangei	ISI AUG OWN PRE	c - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106897 H- 3 RHR SERVICE WATER		ISI-13142-48-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106898 H- 4 RHR SERVICE WATER		ISI-13142-48-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106899 H- 5 RHR SERVICE WATER		ISI-13142-48-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106900 H- 6 RHR SERVICE WATER		ISI-13142-48-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20a 2	106901 H- 7 RHR SERVICE WATER		ISI-13142-48-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106902 H- 8 RHR SERVICE WATER		ISI-13142-48-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106910 H- 1 RHR SERVICE WATER		ISI-13142-48-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106911 H- 2 RHR SERVICE WATER		ISI-13142-48-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106912 H- 3 RHR SERVICE WATER		ISI-13142-48-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106913 H- 4 RHR SERVICE WATER	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-48-B Seismic Restraint	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106914 H- 5 RHR SERVICE WATER		ISI-13142-48-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106915 H- 6 RHR SERVICE WATER		ISI-13142-48-B Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106916 H- 7 RHR SERVICE WATER	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-48-B Restraint Hangei	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20a 2	106920 H- 2 RHR A		ISI-13142-51-A Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106921 H- 3 RHR A		ISI-13142-51-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106922 H- 4 RHR A		ISI-13142-51-A Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106923 H- 5 RHR A		ISI-13142-51-A Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106924 H- 6 RHR A		ISI-13142-51-A Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106946 H- 1 RHR B	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-51-C Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.20a 2	106947 H- 2 RHR B	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-51-C Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.20a 2	106948 H- 3 RHR B		ISI-13142-51-C Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	106949 H- 4 RHR B	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP PE-NDE-530	ISI-13142-51-C Restraint Hange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	106971		ISI-13142-51-D	ISI	-	-	-	-	-
F1.20a	H- 1	M1_I4-P3_RF25 / PSI / VT / VT-3 / FP	Restraint Hange	AUG	-	-	-	-	-
2	RHR B	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106972		ISI-13142-51-D	ISI	-	-	-	-	-
F1.20a	H- 2	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Restraint Hange	AUG	-	-	-	-	-
2	RHR B	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106973		ISI-13142-51-D	ISI	-	-	-	-	-
F1.20a	H- 3		Seismic Restraint	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106974		ISI-13142-51-D	ISI	-	-	-	-	-
F1.20a	H- 4		Restraint Hange	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106980		ISI-13142-62	ISI	-	-	-	-	-
F1.20a	H- 1		Restraint Hange	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106981		ISI-13142-62	ISI	-	-	-	-	-
F1.20a	H- 2	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Restraint Hange	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin	NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106982		ISI-13142-62	ISI	-	-	-	-	-
F1.20a	H- 3		Seismic Restraint	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106983		ISI-13142-62	ISI	-	-	-	-	-
F1.20a	H- 4		Restraint Hange	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106984		ISI-13142-62	ISI	-	-	-	-	-
F1.20a	H- 5		Restraint Hange	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	106985		ISI-13142-62	ISI	-	-	-	-	-
F1.20a	H- 6		Seismic Restraint	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106986		ISI-13142-62	ISI	-	-	-	-	-
F1.20a	H- 7		Seismic Restraint	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106990		ISI-13142-67	ISI	c	-	-	-	-
F1.20a	H- 1	M1_I4-P1_RF21 / ISI / VT / / PEI-	Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106991		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 2		Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106992		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 3		Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106993		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 4		Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106994		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 5		Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106995		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 6		Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106996		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 7	M1_I4-P2_RF23 / ISI / VT / / PEI-	Seismic Restraint	AUG	-	-	c	-	-
2	Fuel Pool Emergency Coolin	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	106997		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 8		Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106998		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H- 9		Restraint Hangei	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	106999		ISI-13142-67	ISI	-	-	-	-	-
F1.20a	H-10		Seismic Restraint	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	107028		ISI-13142-37-D	ISI	-	-	-	-	-
F1.20a	H- 1		Restraint Hangei	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	107029		ISI-13142-37-D	ISI	-	-	-	-	-
F1.20a	H- 2		Restraint Hangei	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	107048		ISI-13142-37-E	ISI	-	-	-	-	-
F1.20a	H- 1		Restraint Hangei	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	107050		ISI-13142-37-E	ISI	-	-	-	-	-
F1.20a	H- 3		Restraint Hangei	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	107587		ISI-93268-1A	ISI	-	-	-	-	-
F1.20a	H-20		Tank Support	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	107588		ISI-93268-3A	ISI	-	-	-	-	-
F1.20a	H- 7		Restraint / 4 Lugs	AUG	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.20a 2	107589 H-14 CRD Scram Header B	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-93268-3A Tank Support	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	107600 H-2A RHR Discharge B		ISI-13142-18-B Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	107603 H- 7 RHR A		ISI-13142-51-A Restraint Hangei	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20a 2	107750 H-1A CORE SPRAY B	M1_I4-P2_RF23 / PSI / VT / VT-3 / PEI-02.05.02	ISI-13142-26-B SEISMIC RESTRAINT HANGER	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	100056 H- 1 RHR Suction A		ISI-13142-17-A Strut / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	100057 H- 2 RHR Suction A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-17-A Slide / Clamp	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	100058 H- 3 RHR Suction A		ISI-13142-17-A Slide Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	100059 H- 4 RHR Suction A		ISI-13142-17-A Strut / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	100065 H- 8 RHR Suction A		ISI-13142-17-A Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	100066		ISI-13142-17-A	ISI	-	-	-	-
F1.20b	H- 9		Slide	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100129		ISI-13142-17-C	ISI	-	-	-	-
F1.20b	H- 2		Slide	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100130		ISI-13142-17-C	ISI	-	-	-	-
F1.20b	H- 3		Slide	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100131	M1_I4-P2_RF23 / PSI / VT / / PEI-	ISI-13142-17-C	ISI	-	-	-	-
F1.20b	H- 4	02.05.02	Slide	AUG	-	-	-	-
2	RHR Suction B	M1_I4-P2_RF24 / PSI / VT / / FP-PE-		OWN	-	-	-	-
		NDE-530		PRE	-	-	c B	-
F-A	100132		ISI-13142-17-C	ISI	-	-	-	-
F1.20b	H- 5	M1_I4-P2_RF23 / PSI / VT / / PEI-	Strut / Clamp	AUG	-	-	-	-
2	RHR Suction B	02.05.02		OWN	-	-	-	-
				PRE	-	-	c	-
F-A	100174		ISI-13142-18-A	ISI	-	-	-	-
F1.20b	H- 7		Strut / Clamp	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100209		ISI-13142-18-B	ISI	-	-	-	-
F1.20b	H- 3		Strut / Clamp	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100246		ISI-13142-18-C	ISI	-	-	-	-
F1.20b	H- 1		Strut / Clamp	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100263	M1_I4-P2_RF23 / PSI / VT / / PEI-	ISI-13142-19-A	ISI	-	-	-	-
F1.20b	H- 1	02.05.02	Snubber / Clamp	AUG	-	-	-	-
2	HPCI Steam Disch	M1_I4-P2_RF24 / PSI / VT / / FP-PE-		OWN	-	-	-	-
		NDE-530		PRE	-	-	c B	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	100264	M1_I4-P1_RF21 / ISI / VT / / PEI-	ISI-13142-19-A	ISI	c	r	-	-	-
F1.20b	H- 2	02.05.02	Dbl Snubber / Clamp	AUG	-	-	-	-	-
2	HPCI Steam Disch	M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / PSI / VT / / FP-PE- NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100267		ISI-13142-19-A	ISI	-	-	-	-	-
F1.20b	H- 4		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100269		ISI-13142-19-A	ISI	-	-	-	-	-
F1.20b	H- 6		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100272		ISI-13142-19-A	ISI	-	-	-	-	-
F1.20b	H- 8		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100273		ISI-13142-19-A	ISI	-	-	-	-	-
F1.20b	H- 9		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100332		ISI-13142-20-A	ISI	-	-	-	-	s
F1.20b	H- 2	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Slide	AUG	-	-	-	-	-
2	Core Spray A	NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100333		ISI-13142-20-A	ISI	-	-	-	-	-
F1.20b	H- 3		Snubber	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100335		ISI-13142-20-A	ISI	-	-	-	-	-
F1.20b	H- 5		Strut / Clamp	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	100362		ISI-13142-20-B	ISI	-	-	-	-	-
F1.20b	H- 2	M1_I4-P1_RF22 / PSI / VT / / PEI-	Slide Hanger	AUG	-	-	-	-	-
2	Core Spray B	02.05.02		OWN	-	-	-	-	-
				PRE	-	c	-	-	-
F-A	100363		ISI-13142-20-B	ISI	-	-	-	-	-
F1.20b	H- 3		Snubber / Clamp	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100515		ISI-13142-31-B	ISI	-	-	-	-	-
F1.20b	H- 1		Valve Strap	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100784		ISI-13142-37-A	ISI	-	-	-	-	-
F1.20b	H- 3	M1_I4-P1_RF21 / PSI / VT / / PEI-	Snubber	AUG	-	-	-	-	-
2	RHR Discharge A	02.05.02		OWN	-	-	-	-	-
				PRE	c	-	-	-	-
F-A	100786		ISI-13142-37-A	ISI	-	-	-	-	-
F1.20b	H- 5		Dbl Strut / Clamp	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100787		ISI-13142-37-A	ISI	-	-	-	-	-
F1.20b	H- 6		Strut / Clamp	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100823		ISI-13142-37-B	ISI	-	-	-	-	-
F1.20b	H- 8		Strut / Clamp	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100825		ISI-13142-37-B	ISI	-	-	-	-	-
F1.20b	H-10		Dbl Strut/Dbl Clamp	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100850		ISI-13142-37-C	ISI	-	-	-	-	-
F1.20b	H- 4		Dbl Strut / Snubber	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	100851		ISI-13142-37-C	ISI	-	-	-	-	-
F1.20b	H- 5		DbI Strut / Clamp	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100878		ISI-13142-40-A	ISI	-	-	-	-	-
F1.20b	H- 4		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100879		ISI-13142-40-A	ISI	-	-	-	-	-
F1.20b	H- 5	M1_I4-P2_RF23 / PSI / VT / / PEI-	Snubber / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch	02.05.02		OWN	-	-	-	-	-
				PRE	-	t	-	-	-
F-A	100882		ISI-13142-40-A	ISI	-	-	-	-	-
F1.20b	H- 8		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100887		ISI-13142-40-A	ISI	-	-	-	-	-
F1.20b	H-13		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100913		ISI-13142-40-B	ISI	-	-	-	-	-
F1.20b	H- 2		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100919		ISI-13142-40-B	ISI	E	-	-	-	-
F1.20b	H- 7	M1_I4-P1_RF21 / ISI / VT / / PEI-	Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch	02.05.02		OWN	-	-	-	-	-
		M1_I4-P1_RF21 / PSI / VT / / PEI-		PRE	-	-	-	-	-
		02.05.02			-	-	-	-	-
F-A	100921		ISI-13142-40-B	ISI	c	-	-	-	-
F1.20b	H- 8	M1_I4-P1_RF21 / ISI / VT / / PEI-	Strut / Clamp / Box	AUG	-	-	-	-	-
2	HPCI Water Side Dsch	02.05.02		OWN	-	-	-	-	-
		M1_I4-P1_RF21 / PSI / VT / / PEI-		PRE	-	-	-	-	-
		02.05.02			-	-	-	-	-
F-A	100924		ISI-13142-40-B	ISI	-	-	-	-	-
F1.20b	H-11		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	100925		ISI-13142-40-B	ISI	-	-	-	-	-
F1.20b	H-12		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100980		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20b	H- 4		Dbl Strut/Dbl Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100985		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20b	H- 9		Strut / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100987		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20b	H-11		Snubber / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
		M1_I4-P1_RF21 / PSI / VT / / PEI-02.05.02							
		M1_I4-P1_RF21 / PSI / VT / / PEI-02.05.02							
		M1_I4-P1_RF22 / PSI / VT / / PEI-02.05.02							
		M1_I4-P1_RF22 / PSI / VT / / PEI-02.05.02							
		M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02							
		M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02							
		M1_I4-P2_RF24 / PSI / VT / / FP-PE-NDE-530							
		M1_I4-P2_RF24 / PSI / VT / / FP-PE-NDE-530							
		M1_I4-P3_RF25 / PSI / VT / / FP-PE-NDE-530							
		M1_I4-P3_RF25 / PSI / VT / VT-3 / FP-PE-NDE-530							
				PRE	B	B	-	-	B
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									-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20b 2	101106 H- 3 RHR Suction A	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-49-A Dbl Strut/Dbl Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.20b 2	101107 H- 4 RHR Suction A		ISI-13142-49-A Snubber / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	101110 H- 7 RHR Suction B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-49-A Dbl Strut/Dbl Strut	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	101113 H-10 RHR Suction B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02 M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-49-A Snubber / Clamp	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	101114 H-11 RHR Suction B	M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.02	ISI-13142-49-A Slide	ISI AUG OWN PRE	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	101139 H- 1 RHR A	M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / PSI / VT / / FP-PE- NDE-530	ISI-13142-51-A Snubber / Dbl Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - - b - - -
F-A F1.20b 2	101165 H- 1 Containment Spray		ISI-13142-51-B Strut / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	101169 H- 4 Containment Spray		ISI-13142-51-B Strut / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	101170 H- 5 Containment Spray		ISI-13142-51-B Dbl Strut/Dbl Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3		
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	101173		ISI-13142-51-B	ISI	-	-	-	-	-	-	-
F1.20b	H- 8		Strut / Clamp	AUG	-	-	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101709		ISI-93268-1A	ISI	-	-	-	-	-	-	-
F1.20b	H- 8		Strut / Clamp	AUG	-	-	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101710		ISI-93268-1A	ISI	-	-	-	c	-	-	-
F1.20b	H- 9	M1_I4-P2_RF23 / ISI / VT / / PEI-	Strut / Clamp	AUG	-	-	-	-	-	-	-
2	CRD Scram Header A	02.05.02		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101713	M1_I4-P2_RF23 / PSI / VT / / PEI-	ISI-93268-1A	ISI	-	-	-	-	-	-	-
F1.20b	H-12	02.05.02	Snubber/ Clamp	AUG	-	-	-	-	-	-	-
2	CRD Scram Header A	M1_I4-P2_RF24 / PSI / VT / / FP-PE-		OWN	-	-	-	-	-	-	-
		NDE-530		PRE	-	t	-	c	B	-	-
F-A	101714		ISI-93268-1A	ISI	-	-	-	-	-	-	-
F1.20b	H-13		Strut / Clamp	AUG	-	-	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	101715	M1_I4-P2_RF23 / PSI / VT / / PEI-	ISI-93268-1A	ISI	-	-	-	-	-	-	-
F1.20b	H-14	02.05.02	Snubber / Clamp	AUG	-	-	-	-	-	-	-
2	CRD Scram Header A	M1_I4-P2_RF24 / PSI / VT / / FP-PE-		OWN	-	-	-	-	-	-	-
		NDE-530		PRE	-	t	-	c	B	-	-
F-A	106041		ISI-94966-A	ISI	-	-	-	-	-	-	-
F1.20b	H- 1		Double Rigid Strut	AUG	-	-	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
F-A	106042		ISI-94966-A	ISI	-	-	-	-	-	-	-
F1.20b	H- 2	M1_I4-P2_RF23 / PSI / VT / / PEI-	Snubber / Clamp	AUG	-	-	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1	02.05.02		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	c	-	-	-
F-A	106043		ISI-94966-A	ISI	-	-	-	-	-	-	s
F1.20b	H- 3	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Dbt Spring / U-boll	AUG	-	-	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1	NDE-530		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20b 2	106044 H- 4 Vacuum Relief & CGCS Outlet Div.1	M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02	ISI-94966-A Snubber / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106046 H- 6 Vacuum Relief & CGCS Outlet Div.1		ISI-94966-A Dbl Strut / U-bol	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106052 H- 1 Containment Air Purge		ISI-94966-B Dbl Strut / U-bol	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106053 H- 2 Containment Air Purge		ISI-94966-B Strut / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106065 H-1/H-2 CGCS OUTLET DIV 2		ISI-94699-A Double Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106077 H- 1 Standby Gas Trtmnt & Rx Plenur		ISI-105531-A Base Plate	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106097 H- 1 Torus HPV		ISI-158074-A Hanger	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106810 H- 1 RCIC Steam Discharge	M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02 M1_I4-P2_RF23 / PSI / VT / / PEI-02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE-NDE-530 M1_I4-P2_RF24 / PSI / VT / / FP-PE-NDE-530	ISI-13142-19-B Double Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - t - -	- - - - - - - - - - - - c B - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20b 2	106820 H- 1 CORE SPRAY B	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02	ISI-13142-26-B Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - t - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	106950 H- 5 RHR B	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-51-C Seismic Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	107030 H- 3 RHR A	M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.02 M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.02	ISI-13142-37-D Double Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	107049 H- 2 RHR A	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530	ISI-13142-37-E Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c B - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	107568 H- 9 RHR Suction B	M1_I4-P1_RF22 / PSI / VT / / PEI- 02.05.02	ISI-13142-17-C Dbl Strut / 8 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	107573 H- 2 Containment Spray	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-13142-37-B Strut / 8 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	107574 H- 3 Containment Spray	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-13142-37-B Strut / 8 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20b 2	107575 H- 5 Containment Spray	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-37-B Snubber / Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - c - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.20b 2	107578 H- 6 HPCI Water Side Dsch	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02 M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-40-B Dbl Strut / 4 Lugs	ISI AUG OWN PRE	c r - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20c 2	100064 H- 7 RHR Suction A	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-17-A Spring / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -	- - - -
F-A F1.20c 2	100099 H- 2 HPCI Water Side Sctn		ISI-13142-17-B Dbl Spring / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20c 2	100128 H- 1 RHR Suction B		ISI-13142-17-C Spring / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20c 2	100134 H- 7 RHR Suction B		ISI-13142-17-C Dbl Spring / Clamp	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20c 2	100168 H- 1 RHR Discharge B	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	ISI-13142-18-A Spring / Clamp	ISI AUG OWN PRE	- - - -	c - - -	- - - -	- - - -	- - - -
F-A F1.20c 2	100172 H- 5 RHR Discharge B		ISI-13142-18-A Dbl Spr/U-Blt/Saddle	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20c 2	100173 H- 6 RHR Discharge B		ISI-13142-18-A Dbl Spr/U-Blt/Saddle	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A F1.20c 2	100175 H- 8 RHR Discharge B		ISI-13142-18-A Dbl Spr/U-Blt/Saddle	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.20c 2	100178 H-10 RHR Discharge B		ISI-13142-18-A Spring/Clamp/Slide	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100207 H- 1 RHR Discharge B		ISI-13142-18-B Variable Slide	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100208 H- 2 RHR Discharge B		ISI-13142-18-B Variable Clamp	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100210 H- 4 RHR Discharge B		ISI-13142-18-B Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100247 H- 2 RHR Discharge B		ISI-13142-18-C Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100248 H- 3 RHR Discharge B		ISI-13142-18-C Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100268 H- 5 HPCI Steam Disch		ISI-13142-19-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100331 H- 1 Core Spray A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02 M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	ISI-13142-20-A Variable Spr / Slide	ISI AUG OWN PRE	c - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A F1.20c 2	100334 H- 4 Core Spray A		ISI-13142-20-A Variable Spr/Slide	ISI AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	100361		ISI-13142-20-B	ISI	-	-	-	-	-
F1.20c	H- 1		Variable	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100429		ISI-13142-26-A	ISI	-	-	-	-	-
F1.20c	H- 3		Spring / Clamp	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100430		ISI-13142-26-A	ISI	-	-	-	-	-
F1.20c	H- 4		Spring / Clamp	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100516		ISI-13142-31-B	ISI	-	-	-	-	-
F1.20c	H- 2		Dbl Spring / Clamp	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100782		ISI-13142-37-A	ISI	-	-	-	-	-
F1.20c	H- 1		Spring / Clamp	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100783		ISI-13142-37-A	ISI	-	-	-	-	-
F1.20c	H- 2		Spring / Clamp	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100785		ISI-13142-37-A	ISI	-	-	-	-	-
F1.20c	H- 4		Dbl Spring / Clamp	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100790		ISI-13142-37-A	ISI	-	-	-	-	-
F1.20c	H- 8		Variable / Clamp	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100813		ISI-13142-37-B	ISI	-	-	-	-	s
F1.20c	H- 1	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Variable Spring	AUG	-	-	-	-	-
2	Containment Spray	NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	100817		ISI-13142-37-B	ISI	-	-	-	-
F1.20c	H- 4		Variable Spring	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100824		ISI-13142-37-B	ISI	-	-	-	-
F1.20c	H- 9	M1_I4-P2_RF23 / ISI / VT / / PEI-	Spring / Clamp	AUG	-	-	-	-
2	Containment Spray	02.05.02		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100826		ISI-13142-37-B	ISI	-	-	-	-
F1.20c	H-11		Spring / Clamp	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100827		ISI-13142-37-B	ISI	-	-	-	-
F1.20c	H-12		Spring / Clamp	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100847		ISI-13142-37-C	ISI	-	-	-	-
F1.20c	H- 1		Spring / Clamp	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100848		ISI-13142-37-C	ISI	-	-	-	-
F1.20c	H- 2		Spring / Clamp	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100849		ISI-13142-37-C	ISI	-	-	-	-
F1.20c	H- 3		Variable Spring	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100875		ISI-13142-40-A	ISI	-	-	-	-
F1.20c	H- 1		Spring / Clamp	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	100915		ISI-13142-40-B	ISI	-	-	-	-
F1.20c	H- 4		Spring / Clamp	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	100922		ISI-13142-40-B	ISI	c	-	-	-	-
F1.20c	H- 9	M1_I4-P1_RF21 / ISI / VT / / PEI-	Dbl Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Water Side Dsch	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100923		ISI-13142-40-B	ISI	-	-	-	-	-
F1.20c	H-10		Variable Spring	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100977		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20c	H- 2		Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100981		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20c	H- 5		Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100982		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20c	H- 6	M1_I4-P3_RF25 / PSI / VT / VT-3 / FP	Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Steam	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	s	-
F-A	100983		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20c	H- 7		Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100984		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20c	H- 8		Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100989		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20c	H-13		Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	100990		ISI-13142-42-A	ISI	-	-	-	-	-
F1.20c	H-14		Spring / Clamp	AUG	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.20c 2	101104 H- 1 RHR Suction A		ISI-13142-49-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101105 H- 2 RHR Suction A		ISI-13142-49-A Dbl Spring / Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101108 H- 5 RHR Suction A	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-49-A Spring / Clamp	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101109 H- 6 RHR Suction B		ISI-13142-49-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101111 H- 8 RHR Suction B		ISI-13142-49-A Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101112 H- 9 RHR Suction B		ISI-13142-49-A Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101168 H- 3 Containment Spray		ISI-13142-51-B Dbl Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101171 H- 6 Containment Spray		ISI-13142-51-B Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	101172 H- 7 Containment Spray		ISI-13142-51-B Spring / Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.20c 2	106020 H- 1 RBCCW		ISI-13142-29-A Dbl Strut / U-Boll	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	107564 H- 5 RHR Suction A		ISI-13142-17-A Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	107565 H- 6 RHR Suction A		ISI-13142-17-A Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	107566 H- 6 RHR Suction B	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-17-C Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.20c 2	107567 H- 8 RHR Suction B		ISI-13142-17-C Dbl Spr / Half Clamp	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	107569 H- 9 RHR Discharge B	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	ISI-13142-18-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	107570 H- 3 HPCI Steam Disch		ISI-13142-19-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.20c 2	107571 H- 7 HPCI Steam Disch	M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	ISI-13142-19-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
F-A F1.20c 2	107572 H- 7 RHR Discharge A		ISI-13142-37-A Dbl Spring / 4 Lugs	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	107576		ISI-13142-37-B	ISI	-	-	-	-	-	-
F1.20c	H- 6		Dbl Spr/Clamp&Saddle	AUG	-	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107577		ISI-13142-37-B	ISI	-	-	-	-	-	-
F1.20c	H- 7		Dbl Spring / 4 Lugs	AUG	-	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107579		ISI-13142-42-A	ISI	-	-	-	-	-	-
F1.20c	H- 3	M1_I4-P2_RF23 / ISI / VT / / PEI-	Dbl Spring / 4 Lugs	AUG	-	-	-	-	-	-
2	HPCI Steam	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107580		ISI-13142-51-B	ISI	-	-	-	-	-	-
F1.20c	H- 2		Dbl Spring / 4 Lugs	AUG	-	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107601		ISI-13142-18-B	ISI	-	-	-	-	-	-
F1.20c	H-2B		Variable Clamp	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102229		nd-isi-101	ISI	-	-	-	-	-	-
F1.30a	SR-563		Seismic Restraint	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102230		nd-isi-101	ISI	-	-	-	-	-	-
F1.30a	SR-81		Seismic Restraint	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102232		nd-isi-101	ISI	-	-	-	-	-	-
F1.30a	SWH-308		Base Plate	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102233		nd-isi-101	ISI	-	-	-	-	-	-
F1.30a	SWH-309		Base Plate	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102234		nd-isi-101	ISI	-	-	-	-
F1.30a	SWH-310		Base Plate	AUG	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102235		nd-isi-101	ISI	-	-	-	-
F1.30a	SWH-311		Base Plate	AUG	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102236		nd-isi-101	ISI	-	-	-	-
F1.30a	SWH-312		Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102237		nd-isi-101	ISI	-	-	-	-
F1.30a	SWH-313		Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102240		nd-isi-102	ISI	-	-	-	-
F1.30a	SR-213	M1_I4-P2_RF24 / ISI / VT / / FP-PE-	Seismic Restraint	AUG	-	-	c	-
3	RHR Service Water	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102241		nd-isi-102	ISI	-	-	-	s
F1.30a	SR-79	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102242		nd-isi-102	ISI	-	-	-	-
F1.30a	SR-80		Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102244		nd-isi-102	ISI	-	-	c	-
F1.30a	SWH-305	M1_I4-P2_RF23 / ISI / VT / / PEI-	Base Plate	AUG	-	-	-	-
3	RHR Service Water	02.05.02		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102245		nd-isi-102	ISI	-	-	-	-
F1.30a	SWH-306		Base Plate	AUG	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102246		nd-isi-102	ISI	-	-	-	-	-
F1.30a	SWH-307		Base Plate	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102247		nd-isi-102	ISI	-	-	-	-	-
F1.30a	SWH-31		Seismic Restraint	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102248		nd-isi-102	ISI	-	-	-	-	-
F1.30a	SWH-32		Restraint	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102249		nd-isi-103	ISI	-	-	r	-	s
F1.30a	SR-394	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Seismic Restraint	AUG	-	-	-	-	-
3	RHR Service Water	NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102250		nd-isi-103	ISI	-	-	-	-	-
F1.30a	SR-395		Seismic Restraint	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102251		nd-isi-103	ISI	-	-	-	-	-
F1.30a	SR-396	M1_I4-P2_RF23 / PSI / VT / VT-3 /	Seismic Restraint	AUG	-	-	-	-	-
3	RHR Service Water	PEI-02.05.02		OWN	-	-	-	-	-
				PRE	-	-	c	-	-
F-A	102252		nd-isi-103	ISI	-	-	-	-	-
F1.30a	SR-459		Seismic Restraint	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102254		nd-isi-103	ISI	-	-	-	-	-
F1.30a	SR-84		Seismic Restraint	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102255		nd-isi-103	ISI	-	-	-	-	-
F1.30a	SWH-161		Rod & Strut	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.30a 3	102256 SR-460 RHR Service Water		nd-isi-104 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102257 SR-461 RHR Service Water		nd-isi-104 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102258 SR-462 RHR Service Water		nd-isi-104 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102259 SR-463 RHR Service Water		nd-isi-104 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102260 SR-473 RHR Service Water		nd-isi-104 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102261 SWH-45 RHR Service Water		nd-isi-104 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102262 SR-481 RHR Service Water		nd-isi-105 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102263 SR-482 RHR Service Water		nd-isi-105 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102264 SR-90A RHR Service Water		nd-isi-105 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102265		nd-isi-105	ISI	-	-	-	-	-	-
F1.30a	SW-21		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102266		nd-isi-105	ISI	-	-	-	-	-	-
F1.30a	SW-22		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102267		nd-isi-105	ISI	-	-	-	-	-	-
F1.30a	SWH-483		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102268		nd-isi-106	ISI	-	-	-	-	-	-
F1.30a	SR-18		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102269		nd-isi-106	ISI	-	-	-	-	-	-
F1.30a	SR-398		Seismic Restraint	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102272		nd-isi-106	ISI	-	-	-	-	-	-
F1.30a	SR-95		Seismic Restraint	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102273		nd-isi-106	ISI	-	-	-	-	-	-
F1.30a	SR-97		Seismic Restraint	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102274		nd-isi-106	ISI	-	-	-	-	-	-
F1.30a	SW-15		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102275		nd-isi-106	ISI	-	-	-	-	-	-
F1.30a	SW-16		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102276		nd-isi-106	ISI	-	-	-	-
F1.30a	SW-4A		Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	102277	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	nd-isi-107	ISI	-	-	-	s
F1.30a	IS-SWH-75	PE-NDE-530	Rod	AUG	-	-	-	-
3	RHR Service Water	M1_I4-P3_RF25 / ISI / VT / VT-3 / FP-		OWN	-	-	-	-
		PE-NDE-530		PRE	-	-	c	-
F-A	102278		nd-isi-107	ISI	-	-	-	-
F1.30a	IS-SWH-76	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Rod	AUG	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-
				PRE	-	-	c	-
F-A	102281		nd-isi-107	ISI	-	-	-	-
F1.30a	SR-399	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-
				PRE	-	-	c	-
F-A	102282		nd-isi-107	ISI	-	-	-	-
F1.30a	SR-451	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-
				PRE	-	-	c	-
F-A	102283		nd-isi-107	ISI	-	-	-	-
F1.30a	SR-452	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-
				PRE	-	-	c	-
F-A	102284		nd-isi-107	ISI	-	-	-	-
F1.30a	SR-453	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-
				PRE	-	-	c	-
F-A	102285		nd-isi-107	ISI	-	-	-	-
F1.30a	SR-454	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-
				PRE	-	-	c	-
F-A	102286	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	nd-isi-107	ISI	-	-	-	-
F1.30a	SR-455	PE-NDE-530	Seismic Restraint	AUG	-	-	-	-
3	RHR Service Water	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP		OWN	-	-	-	-
		PE-NDE-530		PRE	-	-	c	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102288		nd-isi-107	ISI	-	-	-	-	-	-
F1.30a	SR-469	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Seismic Restraint	AUG	-	-	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102291		nd-isi-107	ISI	c	r	-	-	-	-
F1.30a	SWH-8	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	Dead Weight Support	AUG	-	-	-	-	-	-
3	RHR Service Water	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP PE-NDE-530		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102294		nd-isi-108	ISI	-	-	-	-	-	-
F1.30a	ISI-SWH-69		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102295		nd-isi-108	ISI	-	-	-	-	-	-
F1.30a	ISI-SWH-70		Dead Weight Support	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102296		nd-isi-108	ISI	c	r	-	-	-	-
F1.30a	SR-100	M1_I4-P1_RF21 / ISI / VT / / PEI- 02.05.02	Double Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102297		nd-isi-108	ISI	-	-	-	-	-	-
F1.30a	SR-103		Double Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102298		nd-isi-108	ISI	-	-	-	-	-	-
F1.30a	SR-104		Seismic Restraint	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102307		nd-isi-108	ISI	-	-	-	-	-	-
F1.30a	SWH-11		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102308		nd-isi-108	ISI	-	-	-	-	-	-
F1.30a	SWH-9		Rod	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.30a 3	102309 SWH-9A RHR Service Water		nd-isi-108 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102315 SR-94 RHR Service Water		nd-isi-109 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102316 SR-96 RHR Service Water		nd-isi-109 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102317 SW-24 RHR Service Water		nd-isi-109 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102318 SW-26 RHR Service Water		nd-isi-109 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102319 SW-4B RHR Service Water		nd-isi-109 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102320 SWH-490 RHR Service Water		nd-isi-109 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102321 SWH-498 RHR Service Water		nd-isi-109 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102323 SR-91 RHR Service Water		nd-isi-110 Seismic Restraint	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A F1.30a 3	102324 SW-29 RHR Service Water		nd-isi-110 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102325 SWH-493 RHR Service Water		nd-isi-110 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102327 H-201 RHR Service Water		nd-isi-123 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102328 H-202 RHR Service Water	M1_I4-P2_RF24 / ISI / VT / / FP-PE- NDE-530	nd-isi-123 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102329 H-203 RHR Service Water		nd-isi-123 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102330 H-204 RHR Service Water		nd-isi-123 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30a 3	102331 H-205 RHR Service Water		nd-isi-123 Rod	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102228 SWH-180 RHR Service Water		nd-isi-100 Clevis	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102231 SS-562 RHR Service Water		nd-isi-101 Dbl Strut / Snubber	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102238		nd-isi-101	ISI	-	-	-	-	-
F1.30b	SWH-375		Strut	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102239		nd-isi-101	ISI	-	-	-	-	-
F1.30b	SWH-43		Stanchion	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102253		nd-isi-103	ISI	-	-	-	-	s
F1.30b	SR-464	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Strut	AUG	-	-	-	-	-
3	RHR Service Water	NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102270		nd-isi-106	ISI	-	-	-	-	-
F1.30b	SR-450	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Strut	AUG	-	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102271		nd-isi-106	ISI	-	-	-	-	-
F1.30b	SR-457	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Anchor	AUG	-	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	c	-	-
F-A	102279		nd-isi-107	ISI	-	-	-	-	-
F1.30b	SR-105	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Stanchion	AUG	-	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	c	-
F-A	102280		nd-isi-107	ISI	-	-	-	-	-
F1.30b	SR-397	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Double Strut	AUG	-	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	c	-
F-A	102287		nd-isi-107	ISI	-	-	-	-	-
F1.30b	SR-456	M1_I4-P2_RF24 / PSI / VT / VT-3 / FP	Strut	AUG	-	-	-	-	-
3	RHR Service Water	PE-NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	c
F-A	102289		nd-isi-107	ISI	-	-	-	-	-
F1.30b	SWH-72A		Stanchion	AUG	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102290		nd-isi-107	ISI	-	-	-	-	-	-
F1.30b	SWH-72B		Stanchion	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102292		nd-isi-108	ISI	-	-	-	-	-	-
F1.30b	IS-SWH-65		Stanchion	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102293		nd-isi-108	ISI	-	-	-	-	-	-
F1.30b	IS-SWH-66		Stanchion	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102299		nd-isi-108	ISI	c	r	-	-	-	-
F1.30b	SR-106	M1_I4-P1_RF21 / ISI / VT / / PEI-	Stanchion	AUG	-	-	-	-	-	-
3	RHR Service Water	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102300		nd-isi-108	ISI	-	-	-	-	-	-
F1.30b	SR-382		Strut	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102301		nd-isi-108	ISI	-	-	-	-	-	-
F1.30b	SR-383		Strut	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102302		nd-isi-108	ISI	-	-	-	-	-	-
F1.30b	SR-384		Strut	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102303		nd-isi-108	ISI	-	-	-	-	-	-
F1.30b	SR-385	M1_I4-P2_RF23 / PSI / VT / VT-3 /	Strut	AUG	-	-	-	-	-	-
3	RHR Service Water	PEI-02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102304		nd-isi-108	ISI	-	-	-	-	-	-
F1.30b	SR-386		Strut	AUG	-	-	-	-	-	-
3	RHR Service Water			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.30b 3	102305 SR-400 RHR Service Water		nd-isi-108 Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102306 SR-401 RHR Service Water		nd-isi-108 Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102310 SR-337 RHR Service Water		nd-isi-109 Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102311 SR-402 RHR Service Water		nd-isi-109 Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102312 SR-458 RHR Service Water		nd-isi-109 Anchor	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102313 SR-491 RHR Service Water		nd-isi-109 Double Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102314 SR-492 RHR Service Water		nd-isi-109 Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102322 SR-494 RHR Service Water		nd-isi-110 Strut	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.30b 3	102326 SR-88 RHR Service Water	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02	nd-isi-111 Stanchion	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102243		nd-isi-102	ISI	-	-	-	-	-
F1.30c	SWH-304	M1_I4-P2_RF23 / ISI / VT / / PEI-	Double Spring	AUG	-	-	-	-	-
3	RHR Service Water	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101682		ISI-8292-42A	ISI	-	-	-	-	-
F1.40a	DVMX Supp A	M1_I4-P2_RF23 / ISI / VT / / PEI-	DVMX Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101683		ISI-8292-42A	ISI	-	-	-	-	-
F1.40a	DVMX Supp B	M1_I4-P2_RF23 / ISI / VT / / PEI-	DVMX Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101684		ISI-8292-42A	ISI	-	-	-	-	-
F1.40a	DVMX Supp C	M1_I4-P2_RF23 / ISI / VT / / PEI-	DVMX Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101685		ISI-8292-42A	ISI	-	-	-	-	-
F1.40a	DVMX Supp D	M1_I4-P2_RF24 / ISI / VT / / FP-PE-	DVMX Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101686		ISI-8292-42A	ISI	c	r	-	-	-
F1.40a	DVS Supp A	M1_I4-P1_RF21 / ISI / VT / / PEI-	DVS Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101687		ISI-8292-42A	ISI	c	r	-	-	-
F1.40a	DVS Supp B	M1_I4-P1_RF21 / ISI / VT / / PEI-	DVS Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101688		ISI-8292-42A	ISI	-	-	-	-	-
F1.40a	DVS Supp C	M1_I4-P2_RF23 / ISI / VT / / PEI-	DVS Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	101689		ISI-8292-42A	ISI	-	-	-	-	-
F1.40a	DVS Supp D	M1_I4-P2_RF23 / ISI / VT / / PEI-	DVS Pump Support	AUG	-	-	-	-	-
2	HPCI Pumps	02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102074		ISI-97005-C	ISI	-	-	-	-	-
F1.40a	H-10	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Restraint	AUG	-	-	-	-	s
1	Recirculation A	NDE-530		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102181		ISI-97006-C	ISI	-	-	-	-	-
F1.40a	H-10		Restraint	AUG	-	-	-	-	-
1	Recirc Pump B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102741		ISI-47	ISI	-	r	-	c	-
F1.40a	Pump Supp A	M1_I4-P1_RF22 / ISI / / /	Pump Support	AUG	-	-	-	-	-
2	RCIC Turbine & Pump	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102742		ISI-47	ISI	-	r	-	c	-
F1.40a	Pump Supp B	M1_I4-P1_RF22 / ISI / / /	Pump Support	AUG	-	-	-	-	-
2	RCIC Turbine & Pump	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102743		ISI-47	ISI	-	r	-	c	-
F1.40a	Pump Supp C	M1_I4-P1_RF22 / ISI / / /	Pump Support	AUG	-	-	-	-	-
2	RCIC Turbine & Pump	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102744		ISI-47	ISI	-	r	-	c	-
F1.40a	Pump Supp D	M1_I4-P1_RF22 / ISI / / /	Pump Support	AUG	-	-	-	-	-
2	RCIC Turbine & Pump	M1_I4-P2_RF23 / ISI / VT / / PEI- 02.05.02		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102838		ISI-8291-76	ISI	-	-	-	-	-
F1.40a	H-1		ECCS Suction Header Hangers (Item 8	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102839		ISI-8291-76	ISI	-	-	-	-	-
F1.40a	H-5		ECCS Suction Header Hangers (Item 8	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3										
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011										
F-A	102840		ISI-8291-76	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	H-8		ECCS Suction Header Hangers (Item 8	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	102841		ISI-8291-76	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	H-9		ECCS Suction Header Hangers (Item 8	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	102842		ISI-8291-76	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	H-10		ECCS Suction Header Hangers (Item 8	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	102843		ISI-8291-76	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	H-13		ECCS Suction Header Hangers (Item 8	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	107562		ISI Fig 3	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	W-12	M1_I4-P3_RF25 / ISI / VT / VT-3 / FP-	B.H. to Skirt Weld	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	PE-NDE-530		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	107581		ISI-7905-32A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	Support A	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Support A,E200A, 0°	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger A	NDE-530		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	107582		ISI-7905-32A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	Support B	M1_I4-P2_RF24 / ISI / VT / / FP-PE-	Support B,E200A 180°	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger A	NDE-530		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	107583		ISI-7905-32A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	Support C	M1_I4-P1_RF22 / ISI / VT / / PEI-	Support C,E200A 315°	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger A	02.05.02		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F-A	107584		ISI-7905-32B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1.40a	Support A		Support A,E200B 0°	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	107585		ISI-7905-32B	ISI	-	-	-	-	-	-
F1.40a	Support B		Support B,E200B 180°	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107586		ISI-7905-32B	ISI	-	-	-	-	-	-
F1.40a	Support C		Support C,E200B 315°	AUG	-	-	-	-	-	-
2	RHR Heat Exchanger E			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107590		ISI-48	ISI	-	-	-	-	-	-
F1.40a	RHR Support C		Pump Support	AUG	-	-	-	-	-	-
2	RHR Pumps			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107591		ISI-48	ISI	-	-	-	-	-	-
F1.40a	RHR Support D		Pump Support	AUG	-	-	-	-	-	-
2	RHR Pumps			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107592		ISI-48	ISI	-	-	-	-	s	-
F1.40a	RHR Support A	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Pump Support	AUG	-	-	-	-	-	-
2	RHR Pumps	NDE-530		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107593		ISI-48	ISI	-	-	-	-	-	-
F1.40a	RHR Support B		Pump Support	AUG	-	-	-	-	-	-
2	RHR Pumps			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107594		ISI-49	ISI	r	r	-	-	-	-
F1.40a	Support, Pump A	M1_I4-P2_RF23 / ISI / VT / / PEI-	Pump Support	AUG	-	-	-	-	-	-
2	Core Spray Pumps	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107595		ISI-49	ISI	-	-	-	-	-	-
F1.40a	Support, Pump B		Pump Support	AUG	-	-	-	-	-	-
2	Core Spray Pumps			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	107604		ISI-8292-48-A	ISI	c	-	-	-	-	-
F1.40a	Turbine Suppt A	M1_I4-P1_RF21 / ISI / VT / / PEI-	HPCI Turbine Support A	AUG	-	-	-	-	-	-
2	HPCI	02.05.02		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	107605		ISI-8292-48-A	ISI	-	-	-	-	s	-	-	-
F1.40a	Turbine Suppt B	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	HPCI Turbine Support B	AUG	-	-	-	-	-	-	-	-
2	HPCI	NDE-530		OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102776		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-1C		Torus Inboard and Outboard Columns (Item	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen		1)	OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102777		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-2C		Torus Inboard and Outboard Columns (Item	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen		1)	OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102778		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-3C		Torus Inboard and Outboard Columns (Item	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen		1)	OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102779		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-4C		Torus Inboard and Outboard Columns (Item	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen		1)	OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102780		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-5C		Torus Inboard and Outboard Columns (Item	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen		1)	OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102781		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-6C		Torus Inboard and Outboard Columns (Item	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen		1)	OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	102782		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	-	-	-	-	-	-	-	-
F1.40b	H-7C			AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102783		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	-	-	-	-	-	-	-	-
F1.40b	H-8C			AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102784		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	-	-	-	-	-	-	-	-
F1.40b	H-9C			AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102785		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	-	-	-	-	-	-	-	-
F1.40b	H-10C			AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102786		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	-	-	-	-	-	-	-	-
F1.40b	H-11C			AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102787		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	-	-	-	-	-	-	-	-
F1.40b	H-12C			AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102788		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	-	-	-	-	-	-	-	-
F1.40b	H-13C			AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102789		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-14C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102790		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-15C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102791		ISI-8291-76 Torus Inboard and Outboard Columns (Item 1)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-16C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102792		ISI-8291-76 Torus Saddles (Item 2)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-1S Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102793		ISI-8291-76 Torus Saddles (Item 2)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-2S Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102794		ISI-8291-76 Torus Saddles (Item 2)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-3S Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102795		ISI-8291-76 Torus Saddles (Item 2)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-4S Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102796		ISI-8291-76 Torus Saddles (Item 2)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-5S Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102797		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-6S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102798		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-7S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102799		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-8S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102800		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-9S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102801		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-10S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102802		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-11S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102803		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-12S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102804		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-13S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
F-A	102805		ISI-8291-76	ISI	-	-	-	-	-
F1.40b	H-14S		Torus Saddles (Item 2)	AUG	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	102806		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-15S		Torus Saddles (Item 2)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102807		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-16S		Torus Saddles (Item 2)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102808		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-4R		Torus Seismic Restraints (Item 3)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102809		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-8R		Torus Seismic Restraints (Item 3)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102810		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-12R		Torus Seismic Restraints (Item 3)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102811		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-16R		Torus Seismic Restraints (Item 3)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102812		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-1T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
F-A	102813		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b	H-2T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102814		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-3T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102815		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-4T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102816		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102817		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-6T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102818		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-7T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102819		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-8T		Bio Shield to Containment Truss (Item 4)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102820		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-1MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102821		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-2MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102822		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-3MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102823		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-4MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102824		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102825		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-6MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102826		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-7MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102827		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-8MS		Drywell Male Stabilizers (Item 5)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102828		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-1FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102829		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-2FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102830		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-3FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102831		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-4FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102832		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102833		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-6FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102834		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-7FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102835		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-8FS		Drywell Female Stabilizers (Item 6)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102836		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-1		Drywell Support Skirt & Anchor Bolts (Item 7)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102837		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-2		Drywell Support Skirt & Anchor Bolts (Item 7)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102844		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-2A		ECCS Header Snubber Supports/Struts (Item 9)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102845		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-2B Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102846		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-2C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102847		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-2D Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102848		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-4A Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102849		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-4B Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102850		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-4C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102851		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-4D Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102852		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-6A Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102853		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-6B Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102854		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-6C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102855		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-6D Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102856		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-12A Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102857		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-12B Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102858		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-12C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102859		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-12D Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102860		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-14A Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102861		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-14B Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102862		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-14C Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102863		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-14D Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102864		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-16A Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102865		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-16B Primary Containmen			AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102866		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-16C			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102867		ISI-8291-76 ECCS Header Snubber Supports/Struts (Item 9)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-16D			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102868		ISI-8291-76 Vent Header Columns (Item 10)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-1			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102869		ISI-8291-76 Vent Header Columns (Item 10)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-2			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102870		ISI-8291-76 Vent Header Columns (Item 10)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-3			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102871		ISI-8291-76 Vent Header Columns (Item 10)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-4			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102872		ISI-8291-76 Vent Header Columns (Item 10)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-5			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102873		ISI-8291-76 Vent Header Columns (Item 10)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-6			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -
F-A	102874		ISI-8291-76 Vent Header Columns (Item 10)	ISI	- - - -	- - - -	- - - -	- - - -	- - - -
F1.40b	H-7			AUG	- - - -	- - - -	- - - -	- - - -	- - - -
MC	Primary Containmen			OWN	- - - -	- - - -	- - - -	- - - -	- - - -
				PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A F1.40b MC	102875 H-8 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102876 H-9 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102877 H-10 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102878 H-11 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102879 H-12 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102880 H-13 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102881 H-14 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102882 H-15 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
F-A F1.40b MC	102883 H-16 Primary Containmen		ISI-8291-76 Vent Header Columns (Item 10)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102884		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-1A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102885		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-1B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102886		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-1C Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102887		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-1D Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102888		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-1E Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102889		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-1F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102890		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-2A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102891		ISI-8291-76	ISI	-	-	-	-
F1.40b MC	H-2B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-
F-A	102892		ISI-8291-76	ISI	-	-	-	-
F1.40b MC	H-3A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-
F-A	102893		ISI-8291-76	ISI	-	-	-	-
F1.40b MC	H-3B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-
F-A	102894		ISI-8291-76	ISI	-	-	-	-
F1.40b MC	H-3C Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-
F-A	102895		ISI-8291-76	ISI	-	-	-	-
F1.40b MC	H-3D Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-
F-A	102896		ISI-8291-76	ISI	-	-	-	-
F1.40b MC	H-3E Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-
F-A	102897		ISI-8291-76	ISI	-	-	-	-
F1.40b MC	H-3F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102898		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-4A		Downcomer Bracing / Restraints (Item 11)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102899		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-4B		Downcomer Bracing / Restraints (Item 11)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102900		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5A		Downcomer Bracing / Restraints (Item 11)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102901		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5B		Downcomer Bracing / Restraints (Item 11)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102902		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5C		Downcomer Bracing / Restraints (Item 11)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102903		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5D		Downcomer Bracing / Restraints (Item 11)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
F-A	102904		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b	H-5E		Downcomer Bracing / Restraints (Item 11)	AUG	-	-	-	-	-	-
MC	Primary Containmen			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	102905		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-5F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102906		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-6A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102907		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-6B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102908		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-7A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102909		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-7B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102910		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-7C Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102911		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-7D Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
F-A	102912		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-7E Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102913		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-7F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102914		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-8A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102915		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-8B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102916		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-9A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102917		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-9B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	
F-A	102918		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -	
F1.40b MC	H-9C Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102919		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-9D Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102920		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-9E Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102921		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-9F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102922		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-10A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102923		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-10B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102924		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-11A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
F-A	102925		ISI-8291-76	ISI	- - - -	- - - -	- - - -	- - - -
F1.40b MC	H-11B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	102926		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-11C Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102927		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-11D Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102928		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-11E Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102929		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-11F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102930		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-12A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102931		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-12B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102932		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-13A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
F-A	102933		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-13B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102934		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-13C Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102935		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-13D Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102936		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-13E Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102937		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-13F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102938		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-14A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-
F-A	102939		ISI-8291-76	ISI	-	-	-	-	-	-	-	-
F1.40b MC	H-14B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
F-A	102940		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-15A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102941		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-15B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102942		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-15C Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102943		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-15D Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102944		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-15E Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102945		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-15F Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-
F-A	102946		ISI-8291-76	ISI	-	-	-	-	-	-
F1.40b MC	H-16A Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	102947		ISI-8291-76	ISI	-	-	-	-	-
F1.40b MC	H-16B Primary Containmen		Downcomer Bracing / Restraints (Item 11)	AUG OWN PRE	-	-	-	-	-
F-A	107540		ISI-97005-C	ISI	-	-	-	-	s
F1.40b 1	H- 7 Recirc Pump A	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	Snubber / Lugs	AUG OWN PRE	-	-	-	-	-
F-A	107541		ISI-97005-C	ISI	-	c	-	-	-
F1.40b 1	H- 8 Recirc Pump A	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530	Snubber / Lugs	AUG OWN PRE	-	-	-	-	-
F-A	107542		ISI-97005-C	ISI	-	-	-	-	s
F1.40b 1	H- 9 Recirc Pump A	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530 M1_I4-P3_RF25 / ISI / VT / / FP-PE- NDE-530	Snubber / Lugs	AUG OWN PRE	-	-	-	-	-
F-A	107559		ISI-97006-C	ISI	-	-	-	-	-
F1.40b 1	H- 7 Recirc Pump B	M1_I4-P2_RF23 / PSI / VT / / PEI- 02.05.02 M1_I4-P2_RF24 / PSI / VT / / FP-PE- NDE-530	Snubber / Lugs	AUG OWN PRE	-	-	-	-	-
F-A	107560		ISI-97006-C	ISI	-	-	-	-	-
F1.40b 1	H- 8 Recirc Pump B	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	Snubber / Lugs	AUG OWN PRE	-	-	-	-	-
F-A	107561		ISI-97006-C	ISI	c	-	-	-	-
F1.40b 1	H- 9 Recirc Pump B	M1_I4-P1_RF21 / PSI / VT / / PEI- 02.05.02	Snubber / Lugs	AUG OWN PRE	-	-	-	-	-
					H	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
F-A	106108		ISI Fig 4	ISI	-	-	-	-
F1.40c	H-2SB	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Vsl Stbl / Lug @ 90 deg.	AUG	-	-	-	-
1	Reactor Vesse	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106109		ISI Fig 4	ISI	-	-	-	-
F1.40c	H-3SB	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Vsl Stblzr / Lug @ 180 deg	AUG	-	-	-	-
1	Reactor Vesse	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	106110		ISI Fig 4	ISI	-	-	-	-
F1.40c	H-4SB	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Vsl Stblzr / Lug @ 270 deg	AUG	-	-	-	-
1	Reactor Vesse	NDE-530		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	107534		ISI-97005-C	ISI	-	-	-	-
F1.40c	H- 1	M1_I4-P2_RF23 / ISI / VT / / PEI-	Rod/Clevis Grip/Lugs/Constant-Suppor	AUG	-	-	-	-
1	Recirc Pump A	02.05.02		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	107535		ISI-97005-C	ISI	-	-	-	-
F1.40c	H- 2	M1_I4-P2_RF23 / ISI / VT / / PEI-	Rod/Clevis Grip/Lugs/Constant-Suppor	AUG	-	-	-	-
1	Recirc Pump A	02.05.02		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	107536		ISI-97005-C	ISI	-	c	-	-
F1.40c	H- 3	M1_I4-P1_RF22 / ISI / VT / / PEI-	Rod/Clevis Grip/Lugs/Constant-Suppor	AUG	-	-	-	-
1	Recirc Pump A	02.05.02		OWN	-	-	-	-
				PRE	-	-	-	-
F-A	107553		ISI-97006-C	ISI	-	-	-	-
F1.40c	H- 1		Rod/Clevis Grip/Lugs/Constant-Suppor	AUG	-	-	-	-
1	Recirc Pump B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	107554		ISI-97006-C	ISI	-	-	-	-
F1.40c	H- 2		Rod/Clevis Grip/Lugs/Constant-Suppor	AUG	-	-	-	-
1	Recirc Pump B			OWN	-	-	-	-
				PRE	-	-	-	-
F-A	107555		ISI-97006-C	ISI	c	-	-	-
F1.40c	H- 3	M1_I4-P1_RF21 / ISI / VT / / PEI-	Rod/Clevis Grip/Lugs/Constant-Suppor	AUG	-	-	-	-
1	Recirc Pump B	02.05.02 M1_I4-P2_RF23 / PSI / VT / / PEI-		OWN	-	-	-	-
		02.05.02		PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3						
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011						
F-A	107563		ISI Fig 4	ISI	r	r	-	-	-	-	s	-	-	-
F1.40c	H-1SB	M1_I4-P3_RF25 / ISI / VT / / FP-PE-	Vsl Stblzr / Lug @ 0 deg.	AUG	-	-	-	-	-	-	-	-	-	-
1	Reactor Vesse	NDE-530		OWN	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-
NC	105009		NC-ISI-37	ISI	B	B	-	-	B	B	-	-	s	-
NCR95-068	W-1	M1_I4-P1_RF21 / ISI / UT / / PEI-	Pipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-
NC	RCIC Feedwater	02.03.01		OWN	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / UT / / PEI-												
		02.03.01												
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-												
		NDE-401												
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-												
		NDE-401												
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-												
		NDE-401												
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-												
		NDE-401												
				PRE	-	-	-	-	-	-	-	-	-	-
NC	105010		NC-ISI-37	ISI	B	B	-	-	B	B	-	-	s	-
NCR95-068	W-2	M1_I4-P1_RF21 / ISI / UT / / PEI-	Pipe-to-Tee	AUG	-	-	-	-	-	-	-	-	-	-
NC	RCIC Feedwater	02.03.01		OWN	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / UT / / PEI-												
		02.03.01												
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-												
		NDE-401												
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-												
		NDE-401												
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-												
		NDE-401												
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-												
		NDE-401												
				PRE	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3			
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
NC	105011		NC-ISI-37	ISI	B	B	-	-	s	-	-	-
NCR95-068	W-3		Tee-to-Pipe	AUG	-	-	-	-	-	-	-	-
NC	RCIC Feedwater	M1_I4-P1_RF21 / ISI / UT / / PEI-02.03.01		OWN	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / UT / / PEI-02.03.01										
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401										
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401										
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-NDE-401										
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-NDE-401										
				PRE	-	-	-	-	-	-	-	-
NC	105012		NC-ISI-37	ISI	B	B	-	-	s	-	-	-
NCR95-068	W-4		Tee-to-Elbow	AUG	-	-	-	-	-	-	-	-
NC	RCIC Feedwater	M1_I4-P1_RF21 / ISI / UT / / PEI-02.03.01		OWN	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / UT / / PEI-02.03.01										
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401										
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401										
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-NDE-401										
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-NDE-401										
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1				Period 2				Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	RF26_2011	RF27_2011	RF28_2011	RF29_2011	RF30_2011			
NC	105013		NC-ISI-37	ISI	B	B	-	-	B	B	-	-	s	-	-	-
NCR95-068	W-12		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-
NC	RCIC Feedwater	M1_I4-P1_RF21 / ISI / UT / / PEI-02.03.01		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / UT / / PEI-02.03.01			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-
NC	105014		NC-ISI-37.	ISI	B	B	-	-	B	B	-	-	s	-	-	-
NCR95-068	W-12A		Pipe-to-Tee	AUG	-	-	-	-	-	-	-	-	-	-	-	-
NC	RCIC Feedwater	M1_I4-P1_RF21 / ISI / UT / / PEI-02.03.01		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / UT / / PEI-02.03.01			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-NDE-401			-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1				Period 2				Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	RF26_2013	RF27_2015	RF28_2017	RF29_2019	RF30_2021			
NC	105016		NC-ISI-51	ISI	B	B	-	-	B	B	-	-	s	-	-	-
NCR95-068	W-11		Pipe-to-Tee	AUG	-	-	-	-	-	-	-	-	-	-	-	-
NC	CRD TO RWCU			OWN	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF21 / ISI / PT / / PEI-02.01.01														
		M1_I4-P1_RF21 / ISI / UT / / ISI-UT-16														
		M1_I4-P1_RF22 / ISI / PT / / PEI-02.01.01														
		M1_I4-P1_RF22 / ISI / UT / / PEI-02.03.11														
		M1_I4-P2_RF23 / ISI / UT / / PEI-02.03.11														
		M1_I4-P2_RF23 / ISI / UT / / PEI-02.03.11														
		M1_I4-P2_RF23 / ISI / UT / / PEI-02.03.11														
		M1_I4-P2_RF23 / ISI / UT / / PEI-02.03.11														
		M1_I4-P2_RF23 / ISI / UT / / PEI-02.03.11														
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-NDE-410														
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-NDE-410														
				PRE	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1				Period 2				Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	RF26_2013	RF27_2015	RF28_2017	RF29_2019	RF30_2021			
NC	105017		NC-ISI-51	ISI	B	B	-	-	B	B	-	-	s	-	-	-
NCR95-068	W-12		Pipe-to-Tee	AUG	-	-	-	-	-	-	-	-	-	-	-	-
NC	CRD TO RWCU	M1_I4-P1_RF21 / ISI / PT / / PEI-02.01.01		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF21 / ISI / UT / / ISI-UT-16			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / PT / / PEI-02.01.01			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF22 / ISI / UT / / PEI-02.03.02			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-402			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-402			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-NDE-402			-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-NDE-402			-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1				Period 2				Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	RF21_2003	RF22_2005	RF23_2007
NC	105018		NC-ISI-51	ISI	B	B	-	-	B	B	-	-	s	-	-	-
NCR95-068	W-13		Tee-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-
NC	CRD TO RWCU	M1_I4-P1_RF21 / ISI / PT / / PEI-02.01.01		OWN	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P1_RF21 / ISI / UT / / ISI-UT-16														
		M1_I4-P1_RF22 / ISI / PT / / PEI-02.01.01														
		M1_I4-P1_RF22 / ISI / UT / / PEI-02.03.02														
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-402														
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-402														
		M1_I4-P2_RF24 / ISI / UT / / FP-PE-NDE-402														
		M1_I4-P3_RF25 / ISI / UT / / FP-PE-NDE-402														
				PRE	-	-	-	-	-	-	-	-	-	-	-	-
NC	105015		NX-7879-6	ISI	-	-	-	-	-	-	-	-	-	-	-	-
NC-SAC	SBLC	M1_I4-P2_RF24 / OWN / VT / / FP-	Tank Internals	AUG	-	-	-	-	-	-	-	-	-	-	-	-
NC	SBLC	PE-NDE-530		OWN	-	-	-	-	c	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100993		ISI-13142-42-A	ISI	-	-	-	-	-
R1.11-2	W-1		Sweepolet-to-Elbow	AUG	-	-	-	-	-
1	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100994		ISI-13142-42-A	ISI	-	-	-	-	-
R1.11-2	W-2		Elbow-to-Pipe	AUG	-	-	-	-	-
1	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100995		ISI-13142-42-A	ISI	-	-	-	-	-
R1.11-2	W-3		Pipe-to-Ventur	AUG	-	-	-	-	-
1	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100996		ISI-13142-42-A	ISI	-	-	-	-	-
R1.11-2	W-4		Venturi-to-Pipe	AUG	-	-	-	-	-
1	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100997		ISI-13142-42-A	ISI	-	-	-	-	-
R1.11-2	W-5		Pipe-to-Valve	AUG	-	-	-	-	-
1	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101007		ISI-13142-42-A	ISI	-	-	-	-	-
R1.11-2	W-15		Pipe-to-Pipe	AUG	-	-	-	-	-
1	HPCI Steam			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101008		ISI-13142-42-A	ISI	-	-	-	-	s
R1.11-2	W-16	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Pipe-to-Pipe	AUG	-	-	-	-	-
1	HPCI Steam	NDE-401		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101009		ISI-13142-42-A	ISI	-	-	-	-	c
R1.11-2	W-17	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	Pipe-to-Valve	AUG	-	-	-	-	-
1	HPCI Steam	NDE-401		OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101208		ISI-13142-52-A	ISI	-	-	-	-	-
R1.11-2	W-2		Tee-to-Pipe	AUG	-	-	-	-	-
2	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101209		ISI-13142-52-A	ISI	-	-	-	-	-
R1.11-2	W-3		Pipe-to-Pipe	AUG	-	-	-	-	-
2	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101210		ISI-13142-52-A	ISI	-	-	-	-	-
R1.11-2	W-4		Valve-to-Pipe	AUG	-	-	-	-	-
2	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101211		ISI-13142-52-A	ISI	-	-	-	-	-
R1.11-2	W-5		Valve-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101212		ISI-13142-52-A	ISI	-	-	-	-	-
R1.11-2	W-6		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101227		ISI-13142-52-A	ISI	-	c	-	-	-
R1.11-2	W-21	M1_I4-P1_RF22 / ISI / UT / / PEI-	Pipe-to-Elbow	AUG	-	-	-	-	-
1	Feedwater	02.03.01		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101228		ISI-13142-52-A	ISI	-	c	-	-	-
R1.11-2	W-22	M1_I4-P1_RF22 / ISI / UT / / PEI-	Elbow-to-Pipe	AUG	-	-	-	-	-
1	Feedwater	02.03.01		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101229		ISI-13142-52-A	ISI	-	c	-	-	-
R1.11-2	W-23	M1_I4-P1_RF22 / ISI / UT / / PEI-	Pipe-to-Safe End	AUG	-	-	-	-	-
1	Feedwater	02.03.01		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101241		ISI-13142-52-A	ISI	-	-	-	-	-
R1.11-2	W-35		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.11-2 1	101242 W-36 Feedwater		ISI-13142-52-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-2 1	101243 W-37 Feedwater		ISI-13142-52-A Pipe-to-New Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-2 2	101260 W-1 Feedwater		ISI-13142-53-A Valve-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-2 2	101261 W-2 Feedwater		ISI-13142-53-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-2 2	101262 W-3 Feedwater		ISI-13142-53-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-2 2	101263 W-4 Feedwater		ISI-13142-53-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-2 1	101264 W-5 Feedwater	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-13142-53-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
R-A R1.11-2 1	101265 W-6 Feedwater	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-13142-53-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
R-A R1.11-2 1	101268 W-9 Feedwater		ISI-13142-53-A Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101269		ISI-13142-53-A	ISI	-	-	-	-	-
R1.11-2	W-10		Elbow-to-Valve	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101270		ISI-13142-53-A	ISI	-	-	-	-	-
R1.11-2	W-11		Valve-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101280		ISI-13142-53-A	ISI	-	-	-	-	-
R1.11-2	W-21		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101281		ISI-13142-53-A	ISI	-	-	-	s	-
R1.11-2	W-22	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Elbow-to-Pipe	AUG	-	-	-	-	-
1	Feedwater	NDE-401		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101282		ISI-13142-53-A	ISI	-	-	-	s	-
R1.11-2	W-23	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Pipe-to-Safe End	AUG	-	-	-	-	-
1	Feedwater	NDE-401		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101285		ISI-13142-53-A	ISI	-	-	-	-	-
R1.11-2	W-26		Tee-to-Reducer	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101286		ISI-13142-53-A	ISI	-	-	c	-	-
R1.11-2	W-27	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	Reducer-to-Pipe	AUG	-	-	-	-	-
1	Feedwater	NDE-401		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101294		ISI-13142-53-A	ISI	-	-	-	-	-
R1.11-2	W-35		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101295		ISI-13142-53-A	ISI	-	-	-	-	-
R1.11-2	W-36		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101296		ISI-13142-53-A	ISI	-	-	-	-
R1.11-2	W-37		Pipe-to-New Safe Enc	AUG	-	-	-	-
1	Feedwater			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101869		ISI-97003-A	ISI	-	-	-	-
R1.11-2	W-10		Pipe-to-Weldolet	AUG	-	-	-	-
1	RHR Return A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101870		ISI-97003-A	ISI	-	-	-	-
R1.11-2	W-11		Weldolet-to-Flange	AUG	-	-	-	-
1	RHR Return A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101871		ISI-97003-A	ISI	c	r	-	-
R1.11-2	W-12	M1_I4-P1_RF21 / ISI / UT / / PEI-	Pipe-to-Elbow	AUG	-	-	-	-
1	RHR Return A	02.03.01		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101872		ISI-97003-A	ISI	c	-	-	-
R1.11-2	W-13	M1_I4-P1_RF21 / ISI / UT / / PEI-	Elbow-to-Pipe	AUG	-	-	-	-
1	RHR Return A	02.03.01		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101873		ISI-97003-A	ISI	-	-	-	-
R1.11-2	W-14		Pipe-to-Branch	AUG	-	-	-	-
1	RHR Return A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101874		ISI-97003-A	ISI	-	-	c	-
R1.11-2	W-15	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	Pipe-to-Elbow	AUG	-	-	-	-
1	RHR Return A	NDE-401		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101875		ISI-97003-A	ISI	-	-	c	-
R1.11-2	W-16	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	Elbow-to-Pipe	AUG	-	-	-	-
1	RHR Return A	NDE-401		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101876		ISI-97003-A	ISI	-	-	-	-
R1.11-2	W-17		Pipe-to-Elbow	AUG	-	-	-	-
1	RHR Return A			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101877		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-18		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101878		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-19		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101879		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-20		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101880		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-21		Pipe-to-Branch	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101881		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-22		Branch-to-Flange	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101882		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-23		Pipe-to-Valve	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101883		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-24		Valve-to-Pipe	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101884		ISI-97003-A	ISI	-	-	-	-	-
R1.11-2	W-25 LS D		Pipe-to-Pipe	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101949		ISI-97004-A	ISI	-	-	-	s	-
R1.11-2	W-10	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Return B	NDE-401		OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101950		ISI-97004-A	ISI	-	-	-	-	-
R1.11-2	W-11	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Return B	NDE-401		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101951		ISI-97004-A	ISI	-	-	-	-	-
R1.11-2	W-12		Pipe-to-Weldolet	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101952		ISI-97004-A	ISI	-	-	-	-	-
R1.11-2	W-13		Pipe-to-Weldolet	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101953		ISI-97004-A	ISI	-	-	-	-	-
R1.11-2	W-14		Weldolet-to-Flange	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101954		ISI-97004-A	ISI	c	-	-	-	-
R1.11-2	W-15	M1_I4-P1_RF21 / ISI / UT / / PEI-	Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Return B	02.03.01		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101955		ISI-97004-A	ISI	c	-	-	-	-
R1.11-2	W-16	M1_I4-P1_RF21 / ISI / UT / / PEI-	Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Return B	02.03.01		OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101956		ISI-97004-A	ISI	-	-	-	-	-
R1.11-2	W-17		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101957		ISI-97004-A	ISI	-	-	-	-	-
R1.11-2	W-18		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101958		ISI-97004-A	ISI	-	-	-	-	-
R1.11-2	W-19		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101959		ISI-97004-A	ISI	-	-	-	-
R1.11-2	W-20		Elbow-to-Pipe	AUG	-	-	-	-
1	RHR Return B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101960		ISI-97004-A	ISI	-	-	-	-
R1.11-2	W-21		Pipe-to-Weldolet	AUG	-	-	-	-
1	RHR Return B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101961		ISI-97004-A	ISI	-	-	-	-
R1.11-2	W-22		Weldolet-to-Flange	AUG	-	-	-	-
1	RHR Return B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101962		ISI-97004-A	ISI	-	-	-	-
R1.11-2	W-23		Pipe-to-Valve	AUG	-	-	-	-
1	RHR Return B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101963		ISI-97004-A	ISI	-	-	-	-
R1.11-2	W-24		Valve-to-Pipe	AUG	-	-	-	-
1	RHR Return B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100055		ISI-13142-42-A	ISI	-	-	-	-
R1.11-5	W-26		Elbow-to-Pipe	AUG	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100303		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-1		Flange-to-Tee	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100304		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-2		Tee-to-Endcap	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100305		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-3		Tee-to-Pipe	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.11-5 2	100306 W-4 RCIC Steam Discharge		ISI-13142-19-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100307 W-5 RCIC Steam Discharge		ISI-13142-19-B Elbow-to-Pipe	ISI AUG OWN PRE	- c - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100308 W-6 RCIC Steam Discharge		ISI-13142-19-B Pipe-to-Elbow	ISI AUG OWN PRE	- c - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100309 W-7 RCIC Steam Discharge		ISI-13142-19-B Elbow-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100310 W-8 RCIC Steam Discharge		ISI-13142-19-B Tee-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100311 W-9 RCIC Steam Discharge		ISI-13142-19-B Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100312 W-10 RCIC Steam Discharge		ISI-13142-19-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100313 W-11 RCIC Steam Discharge		ISI-13142-19-B Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-5 2	100314 W-12 RCIC Steam Discharge		ISI-13142-19-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3											
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011											
R-A	100315		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-13		Pipe-to-Valve	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100316		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-14		Valve-to-Elbow	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100317		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-15		Elbow-to-Valve	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100318		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-16		Valve-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100319		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-17		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100320		ISI-13142-19-B	ISI	r	c	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-18	M1_I4-P1_RF22 / ISI / UT / / PEI-	Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge	02.03.01		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100321		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-19		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100322		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-20		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	100323		ISI-13142-19-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.11-5	W-21		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100324		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-22		Pipe-to-Elbow	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100325		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-23		Elbow-to-Pipe	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100326		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-24		Pipe-to-Elbow	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100327		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-25		Elbow-to-Pipe	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100328		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-26		Pipe-to-Elbow	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100329		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-27		Elbow-to-Pipe	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100330		ISI-13142-19-B	ISI	-	-	-	-
R1.11-5	W-28		Pipe-to-Torus Pent.	AUG	-	-	-	-
2	RCIC Steam Discharge			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101010		ISI-13142-42-A	ISI	-	-	-	-
R1.11-5	W-18		Valve-to-Tee	AUG	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101011		ISI-13142-42-A	ISI	-	-	-	-
R1.11-5	W-19		Tee-to-Pipe	AUG	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.11-5 2	101012 W-20 HPCI Steam		ISI-13142-42-A Pipe-to-Cap	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101013 W-21 HPCI Steam	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.01	ISI-13142-42-A Tee-to-Pipe	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101014 W-22 HPCI Steam		ISI-13142-42-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101015 W-23 HPCI Steam	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.01	ISI-13142-42-A Pipe-to-Elbow	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101016 W-24 HPCI Steam		ISI-13142-42-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101017 W-25 HPCI Steam		ISI-13142-42-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101019 W-27 HPCI Steam		ISI-13142-42-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101020 W-28 HPCI Steam		ISI-13142-42-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.11-5 2	101021 W-29 HPCI Steam		ISI-13142-42-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	101022		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-30		Pipe-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101023		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-31		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101024		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-32		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101025		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-33		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101026		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-34		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101027		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-35		Pipe-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101028		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-36		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101029		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-37		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101030		ISI-13142-42-A	ISI	-	-	-	-	-	-
R1.11-5	W-38		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
R-A	101031		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-39		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101032		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-40		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101033		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-41		Elbow-to-Tee	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101034		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-42		Tee-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101035		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-43		Pipe-to-Cap	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101036		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-44		Tee-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101037		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-45		Pipe-to-Valve	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101038		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-46		Valve-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	101039		ISI-13142-42-A	ISI	-	-	-	-	-	-	-	-
R1.11-5	W-47		Pipe-to-Red Elbow	AUG	-	-	-	-	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101040		ISI-13142-42-A	ISI	-	-	-	-
R1.11-5	W-48		Red Elbow-to-Flange	AUG	-	-	-	-
2	HPCI Steam			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101213		ISI-13142-52-A	ISI	-	-	-	-
R1.11-5	W-7		Pipe-to-Pipe	AUG	-	-	-	-
1	Feedwater			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101214		ISI-13142-52-A	ISI	-	-	-	s
R1.11-5	W-8	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Pipe-to-Valve	AUG	-	-	-	-
1	Feedwater	NDE-401		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101266		ISI-13142-53-A	ISI	-	-	-	-
R1.11-5	W-7		Pipe-to-Pipe	AUG	-	-	-	-
1	Feedwater			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101267		ISI-13142-53-A	ISI	-	-	-	s
R1.11-5	W-8	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Pipe-to-Valve	AUG	-	-	-	-
1	Feedwater	NDE-401		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101863		ISI-97003-A	ISI	-	-	-	-
R1.11-5	W-4		Pipe-to-Elbow	AUG	-	-	-	-
1	RHR Return A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101864		ISI-97003-A	ISI	-	-	-	-
R1.11-5	W-5		Elbow-to-Pipe	AUG	-	-	-	-
1	RHR Return A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101865		ISI-97003-A	ISI	-	-	-	-
R1.11-5	W-6		Pipe-to-Elbow	AUG	-	-	-	-
1	RHR Return A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101866		ISI-97003-A	ISI	-	-	c	-
R1.11-5	W-7	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	Elbow-to-Pipe	AUG	-	-	-	-
1	RHR Return A	NDE-401		OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3		
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	101867		ISI-97003-A	ISI	-	-	-	-	-	-	-
R1.11-5	W-8		Pipe-to-Valve	AUG	-	-	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101943		ISI-97004-A	ISI	-	-	-	-	-	-	-
R1.11-5	W-4		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101944		ISI-97004-A	ISI	-	-	-	-	-	-	-
R1.11-5	W-5		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101945		ISI-97004-A	ISI	-	-	-	-	-	-	-
R1.11-5	W-6		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101946		ISI-97004-A	ISI	-	-	-	-	-	-	-
R1.11-5	W-7		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101947		ISI-97004-A	ISI	-	-	-	-	-	-	-
R1.11-5	W-8		Pipe-to-Valve	AUG	-	-	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	105006		ISI-13142-42-A	ISI	c	-	-	-	-	-	-
R1.11-5	W-21A	M1_I4-P1_RF21 / ISI / UT / / PEI-	Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	HPCI Steam	02.03.01		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	105007		ISI-13142-42-A	ISI	c	-	-	-	-	-	-
R1.11-5	W-21B	M1_I4-P1_RF21 / ISI / UT / / PEI-	Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	HPCI Steam	02.03.01		OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100998		ISI-13142-42-A	ISI	-	-	-	-	-	-	-
R1.11-6	W-6		Valve-to-Pipe	AUG	-	-	-	-	-	-	-
1	HPCI Steam			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.11-6 1	100999 W-7 HPCI Steam		ISI-13142-42-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-6 1	101000 W-8 HPCI Steam		ISI-13142-42-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-6 1	101001 W-9 HPCI Steam		ISI-13142-42-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-6 1	101002 W-10 HPCI Steam		ISI-13142-42-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-6 1	101003 W-11 HPCI Steam		ISI-13142-42-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-6 1	101004 W-12 HPCI Steam		ISI-13142-42-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-6 1	101005 W-13 HPCI Steam		ISI-13142-42-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.11-6 1	101006 W-14 HPCI Steam		ISI-13142-42-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100114 W-13 HPCI Water Side Sctn		ISI-13142-17-B Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 2	100115 W-14 HPCI Water Side Sctn	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-13142-17-B Pipe-to-Tee	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100116 W-15 HPCI Water Side Sctn		ISI-13142-17-B Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100117 W-16 HPCI Water Side Sctn		ISI-13142-17-B Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100118 W-17 HPCI Water Side Sctn		ISI-13142-17-B Valve-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100119 W-18 HPCI Water Side Sctn		ISI-13142-17-B Elbow-to-Tee	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100120 W-19 HPCI Water Side Sctn		ISI-13142-17-B Tee-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100121 W-20 HPCI Water Side Sctn		ISI-13142-17-B Elbow-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100122 W-21 HPCI Water Side Sctn		ISI-13142-17-B Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	100123 W-22 HPCI Water Side Sctn		ISI-13142-17-B Pipe-to-Flange	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 2	100124 W-23 HPCI Water Side Scn		ISI-13142-17-B Flange-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100125 W-24 HPCI Water Side Scn		ISI-13142-17-B Pipe-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100126 W-25 HPCI Water Side Scn		ISI-13142-17-B Flange-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100127 W-26 HPCI Water Side Scn		ISI-13142-17-B Reducer-to-Pump	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100423 W-22 Rx Ves Head Cooling		ISI Fig 1 Flange-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100439 W-6 Core Spray B	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-26-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100440 W-7 Core Spray B	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-26-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100441 W-8 Core Spray B	M1_I4-P3_RF25 / AUG / UT / / FP- PE-NDE-401	ISI-13142-26-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - s - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	100442 W-9 Core Spray B		ISI-13142-26-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100447 W-14 Core Spray B		ISI-13142-26-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100448 W-15 Core Spray B		ISI-13142-26-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100449 W-16 Core Spray B		ISI-13142-26-A Elbow-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100450 W-17 Core Spray B		ISI-13142-26-A Valve-to-Bent Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100451 W-18 Core Spray B		ISI-13142-26-A Bent Pipe-to-Bent Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100452 W-19 Core Spray B		ISI-13142-26-A Bent Pipe-to-Safe Enc	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100453 W-20 Core Spray B		ISI-13142-26-A Safe End-to-Nozzle	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100500 W-1 Core Spray A	M1_I4-P2_RF23 / AUG / UT // FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT // FP- PE-NDE-401	ISI-13142-31-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	100501 W-2 Core Spray A	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-13142-31-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100502 W-3 Core Spray A	M1_I4-P2_RF24 / ISI / UT / / FP-PE- NDE-401	ISI-13142-31-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100503 W-4 Core Spray A		ISI-13142-31-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100508 W-9 Core Spray A		ISI-13142-31-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100509 W-10 Core Spray A		ISI-13142-31-A Pipe-to-Bent Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100510 W-11 Core Spray A		ISI-13142-31-A Bent Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100511 W-12 Core Spray A		ISI-13142-31-A Valve-to-Bent Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100512 W-13 Core Spray A		ISI-13142-31-A Bent Pipe-to-Bent Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100513 W-14 Core Spray A		ISI-13142-31-A Bent Pipe-to-Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	100514 W-15 Core Spray A	M1_I4-P1_RF22 / ISI / UT / / PEI- 02.03.01	ISI-13142-31-A Safe End-to-Nozzle	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100589 W-1 LS D Main Steam A		ISI-13142-33-A Nozzle-to-Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100590 W-2 LS U Main Steam A		ISI-13142-33-A Safe End-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100591 W-3 Main Steam A	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-13142-33-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100592 W-4 Main Steam A	M1_I4-P2_RF24 / ISI / UT / / FP-PE- NDE-401	ISI-13142-33-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100593 W-5 Main Steam A		ISI-13142-33-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100594 W-6 Main Steam A		ISI-13142-33-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100595 W-7 Main Steam A		ISI-13142-33-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100596 W-8 Main Steam A		ISI-13142-33-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	100597 W-9 Main Steam A		ISI-13142-33-A Elbow-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100598 W-10 Main Steam A		ISI-13142-33-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100599 W-11 Main Steam A		ISI-13142-33-A Pipe-to-Sweepole	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100600 W-12 Main Steam A		ISI-13142-33-A Sweepolet-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100601 W-13 Main Steam A		ISI-13142-33-A Pipe-to-Sweepole	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100602 W-14 Main Steam A		ISI-13142-33-A Sweepolet-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100603 W-15 Main Steam A		ISI-13142-33-A Pipe-to-Sweepole	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100604 W-16 Main Steam A		ISI-13142-33-A Sweepolet-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100605 W-17 Main Steam A		ISI-13142-33-A Pipe-to-Sweepole	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	100606 W-18 Main Steam A		ISI-13142-33-A Sweepolet-to-Flangr	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100607 W-19 Main Steam A		ISI-13142-33-A Pipe-to-Sweepole	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100608 W-20 Main Steam A		ISI-13142-33-A Sweepolet-to-Flangr	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100609 W-21 Main Steam A		ISI-13142-33-A Pipe-to-Sweepole	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100610 W-22 Main Steam A		ISI-13142-33-A Sweepolet-to-Flangr	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100611 W-23 Main Steam A		ISI-13142-33-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100612 W-24 Main Steam A		ISI-13142-33-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100613 W-25 Main Steam A	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-13142-33-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	s - - -
R-A R1.20-4 1	100614 W-26 Main Steam A		ISI-13142-33-A Elbow-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	100639 W-1 LS D Main Steam B		ISI-13142-34-A Nozzle-to-Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100640 W-2 LS U Main Steam B	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-13142-34-A Safe End-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
R-A R1.20-4 1	100641 W-3 Main Steam B		ISI-13142-34-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100642 W-4 Main Steam B	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-13142-34-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100643 W-5 Main Steam B		ISI-13142-34-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100644 W-6 Main Steam B		ISI-13142-34-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100645 W-7 Main Steam B		ISI-13142-34-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100646 W-8 Main Steam B		ISI-13142-34-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100647 W-9 Main Steam B		ISI-13142-34-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100648		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-10		Elbow-to-Elbow	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100649		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-11		Elbow-to-Pipe	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100650		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-12		Pipe-to-Sweepole	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100651		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-13		Sweepolet-to-Flangr	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100652		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-14		Pipe-to-Sweepole	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100653		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-15		Sweepolet-to-Flangr	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100654		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-16		Sweepolet-to-Flangr	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100655		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-17		Pipe-to-Sweepole	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100656		ISI-13142-34-A	ISI	-	-	-	-
R1.20-4	W-18		Pipe-to-Sweepole	AUG	-	-	-	-
1	Main Steam B			OWN	-	-	-	-
				PRE	-	-	-	-

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					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100657		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-19		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100658		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-20		Elbow-to-Boss	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100659		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-21		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100660		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-22		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100661		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-23		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100662		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-24		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100663		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-25		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100664		ISI-13142-34-A	ISI	-	-	-	-	-
R1.20-4	W-26		Elbow-to-Valve	AUG	-	-	-	-	-
1	Main Steam B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100691		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-1 LS D		Nozzle-to-Safe Enc	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100692		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-2 LS U		Safe End-to-Elbow	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100693		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-3		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100694		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-4		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100695		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-5		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100697		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-7		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100698		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-8		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100699		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-9		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100700		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-10		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100701		ISI-13142-35-A	ISI	-	-	-	-	-
R1.20-4	W-11		Elbow-to-Elbow	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	100702		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-12		Elbow-to-Pipe	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100703		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-13		Pipe-to-Sweepole	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100704		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-14		Sweepolet-to-Flange	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100705		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-15		Pipe-to-Sweepole	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100706		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-16		Sweepolet-to-Flange	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100707		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-17		Pipe-to-Sweepole	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100708		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-18		Sweepolet-to-Flange	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100709		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-19		Pipe-to-Sweepole	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100710		ISI-13142-35-A	ISI	-	-	-	-	-	-
R1.20-4	W-20		Pipe-to-Elbow	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	100711 W-21 Main Steam C		ISI-13142-35-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100712 W-22 Main Steam C	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-13142-35-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
R-A R1.20-4 1	100713 W-23 Main Steam C	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-13142-35-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
R-A R1.20-4 1	100714 W-24 Main Steam C	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.01	ISI-13142-35-A Pipe-to-Pipe	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100715 W-25 Main Steam C	M1_I4-P2_RF24 / ISI / UT / / FP-PE- NDE-401	ISI-13142-35-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100716 W-26 Main Steam C		ISI-13142-35-A Elbow-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100747 W-1 LS D Main Steam C		ISI-13142-36-A Nozzle-to-Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100748 W-2 LS U Main Steam C		ISI-13142-36-A Safe End-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	100749 W-3 Main Steam C		ISI-13142-36-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	100750 W-4 Main Steam C		ISI-13142-36-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100751 W-5 Main Steam C		ISI-13142-36-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100752 W-6 Main Steam C		ISI-13142-36-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100753 W-7 Main Steam C		ISI-13142-36-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100754 W-8 Main Steam C		ISI-13142-36-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100755 W-9 Main Steam C		ISI-13142-36-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100756 W-10 Main Steam C		ISI-13142-36-A Elbow-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100757 W-11 Main Steam C		ISI-13142-36-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	100758 W-12 Main Steam C		ISI-13142-36-A Pipe-to-Sweepole	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100759		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-13		Sweepolet-to-Flangr	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100760		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-14		Pipe-to-Sweepole	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100761		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-15		Sweepolet-to-Flangr	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100762		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-16		Pipe-to-Sweepole	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100763		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-17		Sweepolet-to-Flangr	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100764		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-18		Pipe-to-Sweepole	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100765		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-19		Sweepolet-to-Flangr	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100766		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-20		Pipe-to-Sweepole	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100767		ISI-13142-36-A	ISI	-	-	-	-	-
R1.20-4	W-21		Sweepolet-to-Flangr	AUG	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100768		ISI-13142-36-A	ISI	-	-	-	-
R1.20-4	W-22		Pipe-to-Sweepole	AUG	-	-	-	-
1	Main Steam C			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100769		ISI-13142-36-A	ISI	-	-	-	-
R1.20-4	W-23		Sweepolet-to-Flange	AUG	-	-	-	-
1	Main Steam C			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100770		ISI-13142-36-A	ISI	-	-	-	-
R1.20-4	W-24		Pipe-to-Elbow	AUG	-	-	-	-
1	Main Steam C			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100771		ISI-13142-36-A	ISI	-	-	-	-
R1.20-4	W-25		Elbow-to-Pipe	AUG	-	-	-	-
1	Main Steam C			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100772		ISI-13142-36-A	ISI	-	-	-	s
R1.20-4	W-26	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Pipe-to-Elbow	AUG	-	-	-	-
1	Main Steam C	NDE-401		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100773		ISI-13142-36-A	ISI	-	-	-	s
R1.20-4	W-27	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Elbow-to-Pipe	AUG	-	-	-	-
1	Main Steam C	NDE-401		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100774		ISI-13142-36-A	ISI	-	-	-	-
R1.20-4	W-28		Pipe-to-Valve	AUG	-	-	-	-
1	Main Steam C			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100944		ISI-13142-40-B	ISI	-	-	-	-
R1.20-4	W-19		Valve-to-Pipe	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100945		ISI-13142-40-B	ISI	-	-	-	c
R1.20-4	W-20	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	Pipe-to-Elbow	AUG	-	-	-	-
2	HPCI Water Side Dsch	NDE-401		OWN	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-		PRE	-	-	-	-
		NDE-401			-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 2	100946 W-21 HPCI Water Side Dsch		ISI-13142-40-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100947 W-22 HPCI Water Side Dsch		ISI-13142-40-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100948 W-23 HPCI Water Side Dsch	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-13142-40-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100949 W-24 HPCI Water Side Dsch		ISI-13142-40-B Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100961 W-12 RCIC Water Suction		ISI-13142-41-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100962 W-13 RCIC Water Suction	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-13142-41-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100963 W-14 RCIC Water Suction		ISI-13142-41-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100964 W-15 RCIC Water Suction		ISI-13142-41-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 2	100965 W-16 RCIC Water Suction		ISI-13142-41-A Valve-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100966 W-17 RCIC Water Suction		ISI-13142-41-A Tee-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100967 W-18 RCIC Water Suction		ISI-13142-41-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100968 W-19 RCIC Water Suction	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.01	ISI-13142-41-A Valve-to-Pipe	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100969 W-20 RCIC Water Suction		ISI-13142-41-A Elbow-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100970 W-21 RCIC Water Suction		ISI-13142-41-A Flange-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100971 W-22 RCIC Water Suction		ISI-13142-41-A Pipe-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	100972 W-23 RCIC Water Suction		ISI-13142-41-A Flange-to-Pump	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 2	101207 W-1 Feedwater		ISI-13142-52-A Valve-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3										
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011										
R-A	101215		ISI-13142-52-A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-9		Valve-to-Elbow	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	101216		ISI-13142-52-A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-10		Elbow-to-Valve	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	101217		ISI-13142-52-A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-11		Valve-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	101218		ISI-13142-52-A	ISI	-	-	-	-	c	-	-	-	-	-	-	-	-	-
R1.20-4	W-12	M1_I4-P2_RF24 / ISI / UT / / FP-PE-	Pipe-to-Elbow	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater	NDE-401		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	101219		ISI-13142-52-A	ISI	-	-	-	-	c	-	-	-	-	-	-	-	-	-
R1.20-4	W-13	M1_I4-P2_RF23 / ISI / UT / / FP-PE-	Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater	NDE-401		OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-		PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		NDE-401																
R-A	101220		ISI-13142-52-A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-14		Pipe-to-Tee	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	101221		ISI-13142-52-A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-15		Tee-to-Elbow	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	101222		ISI-13142-52-A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-16		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	101223		ISI-13142-52-A	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-17		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101224 W-18 Feedwater		ISI-13142-52-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101225 W-19 Feedwater		ISI-13142-52-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101226 W-20 Feedwater		ISI-13142-52-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101230 W-24 Feedwater	M1_I4-P1_RF22 / ISI / UT / / PEI- 02.03.01	ISI-13142-52-A New S.E.-to-Old S.E.	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101231 W-25 Feedwater	M1_I4-P1_RF22 / ISI / UT / / PEI- 02.03.01	ISI-13142-52-A Safe End-to-Nozzle	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101232 W-26 Feedwater	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-13142-52-A Tee-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101233 W-27 Feedwater	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-13142-52-A Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101234 W-28 Feedwater		ISI-13142-52-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101235 W-29 Feedwater		ISI-13142-52-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	101236 W-30 Feedwater		ISI-13142-52-A Elbow-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101237 W-31 Feedwater		ISI-13142-52-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101238 W-32 Feedwater		ISI-13142-52-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101239 W-33 Feedwater		ISI-13142-52-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101240 W-34 Feedwater		ISI-13142-52-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101244 W-38 Feedwater		ISI-13142-52-A New S.E.-to-Old S.E.	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101245 W-39 Feedwater		ISI-13142-52-A Safe End-to-Nozzle	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101271 W-12 Feedwater		ISI-13142-53-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101272 W-13 Feedwater		ISI-13142-53-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101273		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-14		Pipe-to-Tee	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101274		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-15		Tee-to-Elbow	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101275		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-16		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101276		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-17		Pipe-to-Elbow	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101277		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-18		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101278		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-19		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101279		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-20		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101283		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-24		New S.E.-to-S.E.	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101284		ISI-13142-53-A	ISI	-	-	-	-	-
R1.20-4	W-25		Safe End-to-Nozzle	AUG	-	-	-	-	-
1	Feedwater			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101287 W-28 Feedwater		ISI-13142-53-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101288 W-29 Feedwater		ISI-13142-53-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101289 W-30 Feedwater		ISI-13142-53-A Elbow-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101290 W-31 Feedwater		ISI-13142-53-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101291 W-32 Feedwater		ISI-13142-53-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101292 W-33 Feedwater		ISI-13142-53-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101293 W-34 Feedwater		ISI-13142-53-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101297 W-38 Feedwater		ISI-13142-53-A New S.E.-to-S.E.	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101298 W-39 Feedwater		ISI-13142-53-A Safe End-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101366 W-1 LS U&D Reactor Wtr Cleanup		ISI-73880-A Branch-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101367 W-2 LS U Reactor Wtr Cleanup	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-410	ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -
R-A R1.20-4 1	101368 W-3 LS D Reactor Wtr Cleanup	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.01	ISI-73880-A Elbow-to-Pipe	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101369 W-4 LS U Reactor Wtr Cleanup	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -
R-A R1.20-4 1	101370 W-5 LS D Reactor Wtr Cleanup	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.01	ISI-73880-A Elbow-to-Pipe	ISI AUG OWN PRE	c - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101371 W-6 LS U Reactor Wtr Cleanup	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -
R-A R1.20-4 1	101372 W-7 Reactor Wtr Cleanup		ISI-73880-A Elbow-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101373 W-8 Reactor Wtr Cleanup		ISI-73880-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101374 W-9 Reactor Wtr Cleanup		ISI-73880-A Branch-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101375 W-10 Reactor Wtr Cleanup		ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101376 W-11 Reactor Wtr Cleanup		ISI-73880-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101377 W-12 Reactor Wtr Cleanup		ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101378 W-13 LS D Reactor Wtr Cleanup		ISI-73880-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101379 W-14 LS U&D Reactor Wtr Cleanup	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-73880-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -	- - - -
R-A R1.20-4 1	101380 W-15 LS U Reactor Wtr Cleanup	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -	- - - -
R-A R1.20-4 1	101381 W-16 LS D Reactor Wtr Cleanup		ISI-73880-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101382 W-17 LS U Reactor Wtr Cleanup		ISI-73880-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101383 W-18 LS D Reactor Wtr Cleanup		ISI-73880-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101384 W-19 LS U Reactor Wtr Cleanup		ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101385 W-20 Reactor Wtr Cleanup		ISI-73880-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101386 W-21 Reactor Wtr Cleanup		ISI-73880-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101387 W-22 Reactor Wtr Cleanup		ISI-73880-A Elbow-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101389 W-24 Reactor Wtr Cleanup		ISI-73880-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101390 W-25 Reactor Wtr Cleanup	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-73880-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	s - - -
R-A R1.20-4 1	101391 W-26 Reactor Wtr Cleanup	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-401	ISI-73880-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -
R-A R1.20-4 1	101393 W-1 Recirc A Drain Line		ISI-74209-1A Hf Coupling-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101394 W-2 Recirc A Drain Line		ISI-74209-1A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	101395 W-3 Recirc A Drain Line		ISI-74209-1A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101396 W-4 Recirc A Drain Line		ISI-74209-1A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101397 W-5 Recirc A Drain Line		ISI-74209-1A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101398 W-6 Recirc A Drain Line		ISI-74209-1A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101399 W-7 Recirc A Drain Line		ISI-74209-1A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101400 W-8 Recirc A Drain Line		ISI-74209-1A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101409 W-1 Recirc B Drain Line		ISI-74210-1A Hf Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101410 W-2 Recirc B Drain Line		ISI-74210-1A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101411 W-3 Recirc B Drain Line		ISI-74210-1A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	101412 W-4 Recirc B Drain Line		ISI-74210-1A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101413 W-5 Recirc B Drain Line		ISI-74210-1A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101414 W-6 Recirc B Drain Line		ISI-74210-1A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101424 W-1 Standby Liquid Cntr		ISI-74215A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101425 W-2 Standby Liquid Cntr		ISI-74215A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101426 W-3 Standby Liquid Cntr		ISI-74215A Tee-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101427 W-4 Standby Liquid Cntr		ISI-74215A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101428 W-5 Standby Liquid Cntr		ISI-74215A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101429 W-6 Standby Liquid Cntr		ISI-74215A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101430 W-7 Standby Liquid Cntr	M1_I4-P3_RF25 / ISI / PT / / PEI- 02.01.01	ISI-74215A Pipe-to-FluedHead Fitting	ISI AUG OWN PRE	r r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101431 W-8 Standby Liquid Cntr		ISI-74215A Head Fitting-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101615 W-50 Bottom Head Drair		ISI-821A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101624 W-1 Bottom Head Drair		ISI-821A Nozzle Stud-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101625 W-2 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101626 W-3 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101627 W-4 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101628 W-5 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101629 W-6 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101630 W-7 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101631 W-8 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101632 W-9 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101633 W-10 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101634 W-11 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101635 W-12 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101636 W-13 Bottom Head Drair		ISI-821A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101637 W-14 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101638 W-15 Bottom Head Drair		ISI-821A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A R1.20-4 1	101639 W-16 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101640 W-17 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101641 W-18 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101642 W-19 Bottom Head Drair		ISI-821A Coupling-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101643 W-20 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101644 W-21 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101645 W-22 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101646 W-23 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101647 W-24 Bottom Head Drair		ISI-821A Coupling-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101648 W-25 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101649 W-26 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101650 W-27 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101651 W-28 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101652 W-29 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101653 W-30 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101654 W-31 Bottom Head Drair		ISI-821A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101655 W-32 Bottom Head Drair		ISI-821A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101656 W-33 Bottom Head Drair		ISI-821A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101657		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-34		Pipe-to-Reducer	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101658		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-35		Reducer-to-Tee	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101659		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-36		Tee-to-Flange	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101660		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-37		Tee-to-Pipe	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101661		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-38		Pipe-to-Reducer	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101662		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-39		Reducer-to-Pipe	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101663		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-40		Pipe-to-Tee	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101664		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-41		Tee-to-Reducer	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101665		ISI-821A	ISI	-	-	-	-	-
R1.20-4	W-42		Tee-to-Pipe	AUG	-	-	-	-	-
1	Bottom Head Drair			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101666 W-43 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101667 W-44 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101668 W-45 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101669 W-46 Bottom Head Drair		ISI-821A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101670 W-47 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101671 W-48 Bottom Head Drair		ISI-821A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101672 W-49 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101673 W-51 Bottom Head Drair		ISI-821A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101674 W-52 Bottom Head Drair		ISI-821A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A R1.20-4 1	101675 W-53 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101676 W-54 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101677 W-55 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101678 W-56 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101679 W-57 Bottom Head Drair		ISI-821A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101680 W-58 Bottom Head Drair		ISI-821A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101681 W-59 Bottom Head Drair		ISI-821A Pipe-to-Sockole	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	101690 W-1 HPCI Pumps		ISI-8292-42A Pipe-to-Pump	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	101691 W-2 HPCI Pumps		ISI-8292-42A Pump-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 2	101692 W-3 HPCI Pumps		ISI-8292-42A Pipe-to-Flange	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	101693 W-4 HPCI Pumps		ISI-8292-42A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	101694 W-5 HPCI Pumps		ISI-8292-42A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	101695 W-6 HPCI Pumps		ISI-8292-42A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	101696 W-7 HPCI Pumps		ISI-8292-42A Flange-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101860 W-1 RHR Return A	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-97003-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
R-A R1.20-4 1	101861 W-2 RHR Return A	M1_I4-P3_RF25 / AUG / UT / / FP- PE-NDE-401	ISI-97003-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	101862 W-3 RHR Return A		ISI-97003-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101868		ISI-97003-A	ISI	-	-	-	-	-
R1.20-4	W-9		Valve-to-Pipe	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101885		ISI-97003-A	ISI	-	-	-	-	-
R1.20-4	W-26 LS U&D		Pipe-to-Reducer	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101886		ISI-97003-A	ISI	-	-	-	-	-
R1.20-4	W-27 LS U&D		Reducer-to-Pipe	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101887		ISI-97003-A	ISI	-	-	-	-	-
R1.20-4	W-28 LS U&D		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101888		ISI-97003-A	ISI	-	-	-	-	-
R1.20-4	W-29 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101889		ISI-97003-A	ISI	-	-	-	-	-
R1.20-4	W-30 LS U&D		Pipe-to-Tee	AUG	-	-	-	-	-
1	RHR Return A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101903		ISI-97003-B	ISI	-	-	-	-	-
R1.20-4	W-1 LS U&D		Tee-to-Pipe	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101904		ISI-97003-B	ISI	-	-	-	-	-
R1.20-4	W-2 LS U&D		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101905		ISI-97003-B	ISI	-	-	-	-	-
R1.20-4	W-3 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101906 W-4 LS U RHR Suction A		ISI-97003-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101907 W-5 RHR Suction A		ISI-97003-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101908 W-6 RHR Suction A		ISI-97003-B Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101909 W-7 RHR Suction A		ISI-97003-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101910 W-8 RHR Suction A		ISI-97003-B Pipe-to-Branch	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101911 W-9 RHR Suction A		ISI-97003-B Branch-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101912 W-10 RHR Suction A		ISI-97003-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101913 W-11 RHR Suction A		ISI-97003-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101914 W-12 RHR Suction A		ISI-97003-B Branch-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	101915 W-13 RHR Suction A		ISI-97003-B Pipe-to-Branch	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101916 W-14 RHR Suction A		ISI-97003-B Branch-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101917 W-15 RHR Suction A		ISI-97003-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101918 W-16 RHR Suction A		ISI-97003-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101926 W-24 RHR Suction A	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-97003-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
R-A R1.20-4 1	101927 W-25 RHR Suction A	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-97003-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
R-A R1.20-4 1	101940 W-1 RHR Return B	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-97004-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
R-A R1.20-4 1	101941 W-2 RHR Return B	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-401	ISI-97004-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
R-A R1.20-4 1	101942 W-3 RHR Return B		ISI-97004-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101948		ISI-97004-A	ISI	-	-	-	-	-
R1.20-4	W-9		Valve-to-Pipe	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101964		ISI-97004-A	ISI	-	-	-	-	-
R1.20-4	W-25 LS D		Pipe-to-Pipe	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101965		ISI-97004-A	ISI	-	-	-	-	-
R1.20-4	W-26 LS U&D		Pipe-to-Reducer	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101966		ISI-97004-A	ISI	-	-	-	-	-
R1.20-4	W-27 LS U&D		Reducer-to-Pipe	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101967		ISI-97004-A	ISI	-	-	-	-	-
R1.20-4	W-28 LS U&D		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101968		ISI-97004-A	ISI	-	-	-	-	-
R1.20-4	W-29 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101969		ISI-97004-A	ISI	-	-	-	-	-
R1.20-4	W-30 LS U&D		Pipe-to-Tee	AUG	-	-	-	-	-
1	RHR Return B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101995		ISI-97005-A	ISI	-	-	-	-	-
R1.20-4	W-1		Nozzle-to-Safe Enc	AUG	-	-	-	-	-
1	Recirculation A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101996		ISI-97005-A	ISI	-	-	-	-	-
R1.20-4	W-2 LS D		Safe End-to-Pipe	AUG	-	-	-	-	-
1	Recirculation A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	101997 W-3 LS U&D Recirculation A	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-402 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-402	ISI-97005-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101998 W-4 LS U&D Recirculation A	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-402 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-402	ISI-97005-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	101999 W-5 LS U&D Recirculation A		ISI-97005-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102000 W-6 LS U&D Recirculation A		ISI-97005-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102001 W-7 LS U&D Recirculation A		ISI-97005-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102002 W-8 LS U&D Recirculation A		ISI-97005-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102003 W-9 LS U&D Recirculation A	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-402 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-402	ISI-97005-A Pipe-to-Bent Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102004 W-10 LS U Recirculation A		ISI-97005-A Bent Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102005 W-11 LS D Recirculation A		ISI-97005-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	102006 W-12 Recirculation A		ISI-97005-A Pipe-to-Hf Coupling	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102007 W-13 LS U&D Recirculation A		ISI-97005-A Pipe-to-Bent Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102008 W-14 LS U Recirculation A		ISI-97005-A Elbow-to-Pump	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102009 W-15 LS D Recirculation A		ISI-97005-A Pump-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102010 W-16 LS U&D Recirculation A		ISI-97005-A Pipe-to-Branch	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102011 W-17 Recirculation A		ISI-97005-A Branch-to-Flange	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102012 W-18 LS U Recirculation A		ISI-97005-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102013 W-19 LS U&D Recirculation A		ISI-97005-A Valve-to-Bent Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102014 W-20 LS U&D Recirculation A		ISI-97005-A Bent Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	102015		ISI-97005-A	ISI	-	-	-	-	-
R1.20-4	W-21 LS U&D		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Recirculation A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102016		ISI-97005-A	ISI	-	-	-	-	-
R1.20-4	W-22 LS U&D		Pipe-to-Tee	AUG	-	-	-	-	-
1	Recirculation A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102017		ISI-97005-A	ISI	-	-	-	-	-
R1.20-4	W-23 LS U&D		Tee-to-Cross Pipe	AUG	-	-	-	-	-
1	Recirculation A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102031		ISI-97005-B	ISI	-	-	-	-	-
R1.20-4	W-1 LS U&D		CrossPipe-to-Reducer	AUG	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102032		ISI-97005-B	ISI	-	-	-	-	-
R1.20-4	W-2 LS U		Reducer-to-Pipe	AUG	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102033		ISI-97005-B	ISI	-	-	-	-	-
R1.20-4	W-3		Pipe-to-Safe End	AUG	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102034		ISI-97005-B	ISI	-	-	-	-	-
R1.20-4	W-4		Safe End-to-Nozzle	AUG	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102035		ISI-97005-B	ISI	-	-	-	-	-
R1.20-4	W-5 LS D		CrossPipe-to-Pipe	AUG	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102036		ISI-97005-B	ISI	-	-	-	-	-
R1.20-4	W-6 LS U&D		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	102037 W-7 LS U&D Recirc Manifold A		ISI-97005-B Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102038 W-8 LS U&D Recirc Manifold A		ISI-97005-B Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102039 W-9 LS U Recirc Manifold A		ISI-97005-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102040 W-10 Recirc Manifold A		ISI-97005-B Pipe-to-Safe End	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102041 W-11 Recirc Manifold A	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-410 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-410 M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-410 M1_I4-P2_RF23 / PSI / PT / Visible / PEI-02.01.01	ISI-97005-B Safe End-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	c - - - - - - - - - - - - c - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102042 W-12 LS U&D Recirc Manifold A		ISI-97005-B Tee-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102043 W-13 LS U&D Recirc Manifold A		ISI-97005-B Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102044 W-14 LS U&D Recirc Manifold A	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-402	ISI-97005-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	102045		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-15 LS U&D	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Elbow-to-Pipe	AUG	-	-	-	-
1	Recirc Manifold A	NDE-402		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102046		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-16 LS U	M1_I4-P3_RF25 / ISI / UT / / FP-PE-	Pipe-to-Pipe	AUG	-	-	-	-
1	Recirc Manifold A	NDE-402		OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102047		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-17		Pipe-to-Safe End	AUG	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102048		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-18		Safe End-to-Nozzle	AUG	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102049		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-19 LS D		CrossPipe-to-Pipe	AUG	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102050		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-20 LS U&D		Pipe-to-Pipe	AUG	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102051		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-21 LS U&D		Pipe-to-Tee	AUG	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102052		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-22 LS U&D		Tee-to-Pipe	AUG	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102053		ISI-97005-B	ISI	-	-	-	-
R1.20-4	W-23 LS U		Pipe-to-Pipe	AUG	-	-	-	-
1	Recirc Manifold A			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	102054 W-24 Recirc Manifold A		ISI-97005-B Pipe-to-Safe Eno	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102055 W-25 Recirc Manifold A	M1_I4-P1_RF22 / ISI / UT / / PEI- 02.03.11	ISI-97005-B Safe End-to-Nozzle	ISI AUG OWN PRE	- c - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102056 W-26 LS U&D Recirc Manifold A		ISI-97005-B Tee-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102057 W-27 LS U&D Recirc Manifold A	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.02	ISI-97005-B Reducer-to-Pipe	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102058 W-28 LS U&D Recirc Manifold A	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-402	ISI-97005-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
R-A R1.20-4 1	102059 W-29 LS U&D Recirc Manifold A	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.02	ISI-97005-B Elbow-to-Pipe	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102060 W-30 LS U Recirc Manifold A	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.02	ISI-97005-B Pipe-to-Pipe	ISI AUG OWN PRE	c - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102061 W-31 Recirc Manifold A		ISI-97005-B Pipe-to-Safe Eno	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102062 W-32 Recirc Manifold A		ISI-97005-B Safe End-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	102102 W-1 Recirculation B		ISI-97006-A Nozzle-to-Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102103 W-2 LS D Recirculation B		ISI-97006-A Safe End-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102104 W-3 LS U&D Recirculation B	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-402	ISI-97006-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
R-A R1.20-4 1	102105 W-4 LS U&D Recirculation B	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-402	ISI-97006-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - - - - -
R-A R1.20-4 1	102106 W-5 LS U&D Recirculation B		ISI-97006-A Pipe-to-Branch	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102107 W-6 LS U&D Recirculation B		ISI-97006-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102108 W-7 LS U&D Recirculation B		ISI-97006-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102109 W-8 LS U&D Recirculation B		ISI-97006-A Pipe-to-Bent Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102110 W-9 LS U Recirculation B		ISI-97006-A Bent Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	102111 W-10 LS D Recirculation B		ISI-97006-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102112 W-11 Recirculation B		ISI-97006-A Pipe-to-Branch	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102113 W-12 LS U&D Recirculation B		ISI-97006-A Pipe-to-Bent Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102114 W-13 LS U Recirculation B		ISI-97006-A Bent Pipe-to-Pump	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102115 W-14 LS D Recirculation B		ISI-97006-A Pump-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102116 W-15 LS U&D Recirculation B		ISI-97006-A Pipe-to-Branch	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102117 W-16 Recirculation B		ISI-97006-A Branch-to-Flange	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102118 W-17 LS U Recirculation B		ISI-97006-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102119 W-18 LS D Recirculation B		ISI-97006-A Valve-to-Bent Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	102120		ISI-97006-A	ISI	-	-	-	-	-
R1.20-4	W-19 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-
1	Recirculation B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102121		ISI-97006-A	ISI	-	-	-	-	-
R1.20-4	W-20 LS U&D		Pipe-to-Pipe	AUG	-	-	-	-	-
1	Recirculation B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102122		ISI-97006-A	ISI	-	-	-	-	-
R1.20-4	W-21 LS U&D		Pipe-to-Tee	AUG	-	-	-	-	-
1	Recirculation B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102123		ISI-97006-A	ISI	-	-	-	-	-
R1.20-4	W-22 LS U&D		Tee-to-Cross Pipe	AUG	-	-	-	-	-
1	Recirculation B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102140		ISI-97006-B	ISI	-	-	-	-	-
R1.20-4	W-1 LS U&D		CrossPipe-to-Reduce	AUG	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102141		ISI-97006-B	ISI	-	-	-	-	-
R1.20-4	W-2 LS U		Reducer-to-Pipe	AUG	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102142		ISI-97006-B	ISI	-	-	-	-	-
R1.20-4	W-3		Pipe-to-Safe End	AUG	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102143		ISI-97006-B	ISI	-	-	-	-	-
R1.20-4	W-4		Safe End-to-Nozzle	AUG	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102144		ISI-97006-B	ISI	-	-	-	-	-
R1.20-4	W-5 LS D		CrossPipe-to-Pipe	AUG	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	102145 W-6 LS U&D Recirc Manifold B		ISI-97006-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102146 W-7 LS U&D Recirc Manifold B		ISI-97006-B Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102147 W-8 LS U&D Recirc Manifold B		ISI-97006-B Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102148 W-9 LS U Recirc Manifold B		ISI-97006-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102149 W-10 Recirc Manifold B		ISI-97006-B Pipe-to-Safe End	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102150 W-11 Recirc Manifold B		ISI-97006-B Safe End-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102151 W-12 LS U&D Recirc Manifold B		ISI-97006-B Tee-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102152 W-13 LS U&D Recirc Manifold B		ISI-97006-B Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102153 W-14 LS U&D Recirc Manifold B		ISI-97006-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3											
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011											
R-A	102154		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-15 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102155		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-16 LS U		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102156		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-17		Pipe-to-Safe End	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102157		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-18		Safe End-to-Nozzle	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102158		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-19 LS D		CrossPipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102159		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-20 LS U&D		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102160		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-21 LS U&D		Pipe-to-Tee	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102161		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-22 LS U&D		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-A	102162		ISI-97006-B	ISI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1.20-4	W-23 LS U		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A	102163		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-24		Pipe-to-Safe End	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102164		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-25	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-410	Safe End-to-Nozzle	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B	M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-410		OWN	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE- NDE-410		PRE	-	-	-	-	-	-	-
R-A	102165		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-26 LS U&D		Tee-to-Reducer	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102166		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-27 LS U&D		Reducer-to-Pipe	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102167		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-28 LS U&D		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102168		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-29 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102169		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-30 LS U		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102170		ISI-97006-B	ISI	-	-	-	-	-	-	-
R1.20-4	W-31		Pipe-to-Safe End	AUG	-	-	-	-	-	-	-
1	Recirc Manifold B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	102171 W-32 Recirc Manifold B		ISI-97006-B Safe End-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102198 W-1 RHR Equalizer		ISI-97027-A Weldolet-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102199 W-2 RHR Equalizer		ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102200 W-3 RHR Equalizer		ISI-97027-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102201 W-4 RHR Equalizer		ISI-97027-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102202 W-5 RHR Equalizer		ISI-97027-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102203 W-6 RHR Equalizer	M1_I4-P1_RF21 / ISI / UT / / PEI- 02.03.01	ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	c r - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102204 W-7 RHR Equalizer		ISI-97027-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102205 W-8 RHR Equalizer		ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A	102206		ISI-97027-A	ISI	-	-	-	-	-	-	-
R1.20-4	W-9		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
1	RHR Equalizer			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102207		ISI-97027-A	ISI	-	-	-	-	-	-	-
R1.20-4	W-10		Pipe-to-Tee	AUG	-	-	-	-	-	-	-
1	RHR Equalizer			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102208		ISI-97027-A	ISI	-	-	-	-	-	-	-
R1.20-4	W-11		Tee-to-Pipe	AUG	-	-	-	-	-	-	-
1	RHR Equalizer			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102209		ISI-97027-A	ISI	-	-	-	-	-	-	-
R1.20-4	W-12		Pipe-to-Valve	AUG	-	-	-	-	-	-	-
1	RHR Equalizer			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102210		ISI-97027-A	ISI	-	-	-	-	-	-	-
R1.20-4	W-13		Valve-to-Pipe	AUG	-	-	-	-	-	-	-
1	RHR Equalizer			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	102211	M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401	ISI-97027-A	ISI	-	-	-	-	c	-	-
R1.20-4	W-14	M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401	Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
1	RHR Equalizer	M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401		OWN	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401		PRE	-	-	-	-	-	-	-
R-A	102212	M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401	ISI-97027-A	ISI	-	-	-	-	c	-	-
R1.20-4	W-15	M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401	Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
1	RHR Equalizer	M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401		OWN	-	-	-	-	-	-	-
		M1_I4-P2_RF23 / ISI / UT / / FP-PE-NDE-401		PRE	-	-	-	-	-	-	-
R-A	102213		ISI-97027-A	ISI	-	-	-	-	-	-	-
R1.20-4	W-16		Pipe-to-Weldolet	AUG	-	-	-	-	-	-	-
1	RHR Equalizer			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	102214 W-17 RHR Equalizer		ISI-97027-A Weldolet-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102215 W-18 RHR Equalizer		ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102216 W-19 RHR Equalizer		ISI-97027-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102217 W-20 RHR Equalizer		ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102218 W-21 RHR Equalizer		ISI-97027-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102219 W-22 RHR Equalizer		ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102220 W-23 RHR Equalizer		ISI-97027-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102221 W-24 RHR Equalizer		ISI-97027-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102222 W-25 RHR Equalizer		ISI-97027-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-4 1	102223 W-26 RHR Equalizer		ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102224 W-27 RHR Equalizer		ISI-97027-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102225 W-28 RHR Equalizer		ISI-97027-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102226 W-29 RHR Equalizer		ISI-97027-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102227 W-30 RHR Equalizer		ISI-97027-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102707 W-1 CRD Return	M1_I4-P1_RF22 / OWN / VT / / PEI- 02.05.01	ISI Fig 5 Nozzle to End Cap	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102729 W-1 Jet Pmp Instrmtator		ISI-16 Safe End / Nozzle 8A	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-4 1	102730 W-2 Jet Pmp Instrmtator	M1_I4-P3_RF25 / ISI / UT / / FP-PE- NDE-410	ISI-16 Safe End / Nozzle 8E	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	s - - - - - - - - - - - -
R-A R1.20-4 1	102731 W-1 Inst Nozzle N-12A		ISI-19 Nozzle-to-Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-4 1	102732 W-2 Inst Nozzle N-12A		ISI-19 Safe End-to-Reducer	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102736 W-6 Inst Nozzle N-12B		ISI-19 Nozzle-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 1	102737 W-7 Inst Nozzle N-12B		ISI-19 Pipe-to-Reducer	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-4 2	W-20A PCAC DIV 1	106104 M1_I4-P1_RF22 / PSI / MT / / PEI- 02.02.01 M1_I4-P1_RF22 / PSI / UT / / PEI- 02.03.01	ISI-94966-A Pipe-to-Cap	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100067 W-1 RHR Suction A		ISI-13142-17-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100088 W-23 RHR Suction A		ISI-13142-17-A Tee-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100089 W-24 RHR Suction A		ISI-13142-17-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100090 W-25 RHR Suction A		ISI-13142-17-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100091 W-26 RHR Suction A		ISI-13142-17-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	100092		ISI-13142-17-A	ISI	-	-	-	-	-	-
R1.20-6	W-27		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100093		ISI-13142-17-A	ISI	-	-	-	-	-	-
R1.20-6	W-28		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100094		ISI-13142-17-A	ISI	-	-	-	-	-	-
R1.20-6	W-29		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100102		ISI-13142-17-B	ISI	-	-	-	-	-	-
R1.20-6	W-1		Tee-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100103		ISI-13142-17-B	ISI	-	-	-	-	-	-
R1.20-6	W-2		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100104		ISI-13142-17-B	ISI	-	-	-	-	-	-
R1.20-6	W-3		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100105		ISI-13142-17-B	ISI	-	-	-	-	-	-
R1.20-6	W-4		Pipe-to-Valve	AUG	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100106		ISI-13142-17-B	ISI	-	-	-	-	-	-
R1.20-6	W-5		Valve-to-Pipe	AUG	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100107		ISI-13142-17-B	ISI	-	-	-	-	-	-
R1.20-6	W-6		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3				
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011				
R-A	100108		ISI-13142-17-B	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-7		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100109		ISI-13142-17-B	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-8		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100110		ISI-13142-17-B	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-9		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100111		ISI-13142-17-B	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-10		Pipe-to-Valve	AUG	-	-	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100112		ISI-13142-17-B	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-11		Valve-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100113		ISI-13142-17-B	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-12		Pipe-to-Valve	AUG	-	-	-	-	-	-	-	-
2	HPCI Water Side Scn			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100137		ISI-13142-17-C	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-1		Tee-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100138		ISI-13142-17-C	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-2		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-
R-A	100139		ISI-13142-17-C	ISI	-	-	-	-	-	-	-	-
R1.20-6	W-3		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100140 W-4 RHR Suction B		ISI-13142-17-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100141 W-5 RHR Suction B		ISI-13142-17-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100142 W-6 RHR Suction B		ISI-13142-17-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100143 W-7 RHR Suction B		ISI-13142-17-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100181 W-1 RHR Discharge B		ISI-13142-18-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100182 W-2 RHR Discharge B		ISI-13142-18-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100183 W-3 RHR Discharge B		ISI-13142-18-A Elbow-to-Reduce	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100184 W-4 RHR Discharge B		ISI-13142-18-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100185 W-5 RHR Discharge B		ISI-13142-18-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100186 W-6 RHR Discharge B		ISI-13142-18-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100187 W-7 RHR Discharge B		ISI-13142-18-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100188 W-8 RHR Discharge B		ISI-13142-18-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100189 W-9 RHR Discharge B		ISI-13142-18-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100190 W-10 RHR Discharge B		ISI-13142-18-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100191 W-11 RHR Discharge B		ISI-13142-18-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100192 W-12 RHR Discharge B		ISI-13142-18-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100193 W-13 RHR Discharge B		ISI-13142-18-A Pipe-to-Tee	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100194 W-14 RHR Discharge B		ISI-13142-18-A Tee-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	100195		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-15		Pipe-to-Pipe	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100196		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-16		Pipe-to-Valve	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100197		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-17		Valve-to-Elbow	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100198		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-18		Elbow-to-Valve	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100199		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-19		Tee-to-Elbow	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100200		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-20		Elbow-to-Reducer	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100201		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-21		Reducer-to-Pipe	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100202		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-22		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100203		ISI-13142-18-A	ISI	-	-	-	-	-	-
R1.20-6	W-23		Elbow-to-Valve	AUG	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 2	100204 W-24 RHR Discharge B		ISI-13142-18-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100205 W-25 RHR Discharge B		ISI-13142-18-A Pipe-to-Weldolel	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100206 W-26 RHR Discharge B		ISI-13142-18-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100213 W-1 RHR Discharge B		ISI-13142-18-B Pump-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100214 W-2 RHR Discharge B		ISI-13142-18-B Elbow-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100215 W-3 RHR Discharge B		ISI-13142-18-B Reducer-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100216 W-4 RHR Discharge B		ISI-13142-18-B Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100217 W-5 RHR Discharge B		ISI-13142-18-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100218 W-6 RHR Discharge B		ISI-13142-18-B Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100219		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-7		Elbow-to-Elbow	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100220		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-8		Elbow-to-Pipe	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100221		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-9		Pipe-to-Tee	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100222		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-10		Pump-to-Elbow	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100223		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-11		Elbow-to-Reducer	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100224		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-12		Reducer-to-Valve	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100225		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-13		Valve-to-Pipe	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100226		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-14		Pipe-to-Valve	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100227		ISI-13142-18-B	ISI	-	-	-	-
R1.20-6	W-15		Valve-to-Elbow	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100228		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-16		Elbow-to-Elbow	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100229		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-17		Pipe-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100230		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-18		Pipe-to-Tee	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100231		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-19		Elbow-to-Reducer	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100232		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-20		Reducer-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100233		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-21		Pipe-to-Tee	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100234		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-22		Tee-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100235		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-23		Pipe-to-Tee	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100236		ISI-13142-18-B	ISI	-	-	-	-	-
R1.20-6	W-24		Tee-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A	100237		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-25		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100238		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-26		Elbow-to-Valve	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100239		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-27		Valve-to-Reducer	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100240		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-28		Reducer-to-Nozzle	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100241		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-29		Tee-to-Pipe	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100242		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-30		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100243		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-31		Elbow-to-Valve	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100244		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-32		Valve-to-Pipe	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100245		ISI-13142-18-B	ISI	-	-	-	-	-	-	-
R1.20-6	W-33		Pipe-to-Tee	AUG	-	-	-	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100249 W-1 RHR Discharge B		ISI-13142-18-C Nozzle-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100250 W-2 RHR Discharge B		ISI-13142-18-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100251 W-3 RHR Discharge B		ISI-13142-18-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100252 W-4 RHR Discharge B		ISI-13142-18-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100253 W-5 RHR Discharge B		ISI-13142-18-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100254 W-6 RHR Discharge B		ISI-13142-18-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100255 W-7 RHR Discharge B		ISI-13142-18-C Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100256 W-8 RHR Discharge B		ISI-13142-18-C Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100257 W-9 RHR Discharge B		ISI-13142-18-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100258		ISI-13142-18-C	ISI	-	-	-	-
R1.20-6	W-10		Pipe-to-Tee	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100259		ISI-13142-18-C	ISI	-	-	-	-
R1.20-6	W-11		Tee-to-Pipe	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100260		ISI-13142-18-C	ISI	-	-	-	-
R1.20-6	W-12		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100261		ISI-13142-18-C	ISI	-	-	-	-
R1.20-6	W-13		Elbow-to-Pipe	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100262		ISI-13142-18-C	ISI	-	-	-	-
R1.20-6	W-14		Pipe-to-Tee	AUG	-	-	-	-
2	RHR Discharge B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100274		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-1		Cap-to-Pipe	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100275		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-2		Tee-to-Pipe	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100276		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-3		Flange-to-Tee	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100277		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-4		Tee-to-Reducer	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100278 W-5 HPCI Steam Disch		ISI-13142-19-A Reducer-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100279 W-6 HPCI Steam Disch		ISI-13142-19-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100280 W-7 HPCI Steam Disch		ISI-13142-19-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100281 W-8 HPCI Steam Disch		ISI-13142-19-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100282 W-9 HPCI Steam Disch		ISI-13142-19-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100283 W-10 HPCI Steam Disch		ISI-13142-19-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100284 W-11 HPCI Steam Disch		ISI-13142-19-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100285 W-12 HPCI Steam Disch		ISI-13142-19-A Tee-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100286 W-13 HPCI Steam Disch		ISI-13142-19-A Flange-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100287		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-14		Pipe-to-Flange	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100288		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-15		Tee-to-Pipe	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100289		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-16		Pipe-to-Elbow	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100290		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-17		Elbow-to-Pipe	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100291		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-18		Pipe-to-Elbow	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100292		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-19		Elbow-to-Valve	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100293		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-20		Valve-to-Pipe	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100294		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-21		Pipe-to-Valve	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100295		ISI-13142-19-A	ISI	-	-	-	-
R1.20-6	W-22		Valve-to-Pipe	AUG	-	-	-	-
2	HPCI Steam Disch			OWN	-	-	-	-
				PRE	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100296 W-23 HPCI Steam Disch		ISI-13142-19-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100297 W-24 HPCI Steam Disch		ISI-13142-19-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100298 W-25 HPCI Steam Disch		ISI-13142-19-A Pipe-to-Reducer	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100299 W-26 HPCI Steam Disch		ISI-13142-19-A Reducer-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100300 W-27 HPCI Steam Disch		ISI-13142-19-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100301 W-28 HPCI Steam Disch		ISI-13142-19-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100302 W-29 HPCI Steam Disch		ISI-13142-19-A Pipe-to-Torus Pent.	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100336 W-1 Core Spray A		ISI-13142-20-A Torus Pent-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100337 W-2 Core Spray A		ISI-13142-20-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100338 W-3 Core Spray A		ISI-13142-20-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100339 W-4 Core Spray A		ISI-13142-20-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100340 W-5 Core Spray A		ISI-13142-20-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100366 W-1 Core Spray B		ISI-13142-20-B Torus Pent-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100367 W-2 Core Spray B		ISI-13142-20-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100368 W-3 Core Spray B		ISI-13142-20-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100369 W-4 Core Spray B		ISI-13142-20-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100370 W-5 Core Spray B		ISI-13142-20-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	100443 W-10 Core Spray B		ISI-13142-26-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	100444 W-11 Core Spray B		ISI-13142-26-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100445 W-12 Core Spray B		ISI-13142-26-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100446 W-13 Core Spray B		ISI-13142-26-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100504 W-5 Core Spray A		ISI-13142-31-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100505 W-6 Core Spray A		ISI-13142-31-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100506 W-7 Core Spray A		ISI-13142-31-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100507 W-8 Core Spray A		ISI-13142-31-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100615 W-27 Main Steam A		ISI-13142-33-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100616 W-28 Main Steam A		ISI-13142-33-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	100617 W-29 Main Steam A	M1_I4-P3_RF25 / AUG / UT / / FP- PE-NDE-401	ISI-13142-33-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - s - - - - - - - - - - -	
R-A R1.20-6 1	100618 W-30 Main Steam A	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-33-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - c - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	100619 W-31 Main Steam A	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-33-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - c - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	100620 W-32 Main Steam A	M1_I4-P1_RF22 / AUG / UT / / PEI- 02.03.01	ISI-13142-33-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - c - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	100665 W-27 Main Steam B		ISI-13142-34-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	100666 W-28 Main Steam B		ISI-13142-34-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	100667 W-29 Main Steam B	M1_I4-P3_RF25 / AUG / UT / / FP- PE-NDE-401	ISI-13142-34-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - s - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 1	100668 W-30 Main Steam B	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-34-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - c - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	100669 W-31 Main Steam B	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-34-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - c - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	100670 W-32 Main Steam B	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-34-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - c - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	100671 W-33 Main Steam B	M1_I4-P1_RF22 / AUG / UT / / PEI- 02.03.01	ISI-13142-34-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - c - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	100717 W-27 Main Steam C		ISI-13142-35-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	100718 W-28 Main Steam C		ISI-13142-35-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	100719 W-29 Main Steam C	M1_I4-P3_RF25 / AUG / UT / / FP- PE-NDE-401	ISI-13142-35-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - s - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 1	100720 W-30 Main Steam C	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-35-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- c - -	- - - -	- - - -
R-A R1.20-6 1	100721 W-31 Main Steam C	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-35-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- c - -	- - - -	- - - -
R-A R1.20-6 1	100722 W-32 Main Steam C	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-35-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- c - -	- - - -	- - - -
R-A R1.20-6 1	100723 W-33 Main Steam C	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-35-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- c - -	- - - -	- - - -
R-A R1.20-6 1	100724 W-34 Main Steam C	M1_I4-P1_RF22 / AUG / UT / / PEI- 02.03.01	ISI-13142-35-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- c - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	100775 W-29 Main Steam C		ISI-13142-36-A Valve-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100776		ISI-13142-36-A	ISI	-	-	-	-	-	-
R1.20-6	W-30		Pipe-to-Pipe	AUG	-	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100777		ISI-13142-36-A	ISI	-	-	-	-	-	-
R1.20-6	W-31	M1_I4-P3_RF25 / AUG / UT / / FP- PE-NDE-401	Pipe-to-Pipe	AUG	-	-	-	-	s	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100778		ISI-13142-36-A	ISI	-	-	-	-	-	-
R1.20-6	W-32	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	Pipe-to-Pipe	AUG	-	-	c	-	-	-
1	Main Steam C	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100779		ISI-13142-36-A	ISI	-	-	-	-	-	-
R1.20-6	W-33	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	Pipe-to-Pipe	AUG	-	-	c	-	-	-
1	Main Steam C	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100780		ISI-13142-36-A	ISI	-	-	-	-	-	-
R1.20-6	W-34	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	Pipe-to-Pipe	AUG	-	-	c	-	-	-
1	Main Steam C	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401		OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100781		ISI-13142-36-A	ISI	-	-	-	-	-	-
R1.20-6	W-35	M1_I4-P1_RF21 / AUG / UT / / PEI- 02.03.01	Pipe-to-Valve	AUG	c	-	-	-	-	-
1	Main Steam C			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	100791		ISI-13142-37-A	ISI	-	-	-	-	-	-
R1.20-6	W-1		Pipe-to-Tee	AUG	-	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 2	100792 W-2 RHR Discharge A		ISI-13142-37-A Tee-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100793 W-3 RHR Discharge A		ISI-13142-37-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100794 W-4 RHR Discharge A		ISI-13142-37-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100795 W-5 RHR Discharge A		ISI-13142-37-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100796 W-6 RHR Discharge A		ISI-13142-37-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100797 W-7 RHR Discharge A		ISI-13142-37-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100798 W-8 RHR Discharge A		ISI-13142-37-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100799 W-9 RHR Discharge A		ISI-13142-37-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100800 W-10 RHR Discharge A		ISI-13142-37-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 2	100801 W-11 RHR Discharge A		ISI-13142-37-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100802 W-12 RHR Discharge A		ISI-13142-37-A Pipe-to-Tee	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100803 W-13 RHR Discharge A		ISI-13142-37-A Valve-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100804 W-14 RHR Discharge A		ISI-13142-37-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100805 W-15 RHR Discharge A		ISI-13142-37-A Pipe-to-Reducer	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100806 W-16 RHR Discharge A		ISI-13142-37-A Reducer-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100807 W-17 RHR Discharge A		ISI-13142-37-A Elbow-to-Tee	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100808 W-18 RHR Discharge A		ISI-13142-37-A Tee-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100809 W-19 RHR Discharge A		ISI-13142-37-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100810		ISI-13142-37-A	ISI	-	-	-	-
R1.20-6	W-20		Pipe-to-Valve	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100811		ISI-13142-37-A	ISI	-	-	-	-
R1.20-6	W-21		Valve-to-Elbow	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100812		ISI-13142-37-A	ISI	-	-	-	-
R1.20-6	W-22		Elbow-to-Valve	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100828		ISI-13142-37-B	ISI	-	-	-	-
R1.20-6	W-1		Reducer-to-Tee	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100829		ISI-13142-37-B	ISI	-	-	-	-
R1.20-6	W-2		Tee-to-Pipe	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100830		ISI-13142-37-B	ISI	-	-	-	-
R1.20-6	W-3		Pipe-to-Elbow	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100831		ISI-13142-37-B	ISI	-	-	-	-
R1.20-6	W-4		Elbow-to-Pipe	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100832		ISI-13142-37-B	ISI	-	-	-	-
R1.20-6	W-5		Pipe-to-Pipe	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100833		ISI-13142-37-B	ISI	-	-	-	-
R1.20-6	W-6		Pipe-to-Elbow	AUG	-	-	-	-
2	Containment Spray			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100834		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-7		Elbow-to-Elbow	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100835		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100836		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-9		Pipe-to-Tee	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100837		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-10		Pipe-to-Valve	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100838		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-11		Tee-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100839		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-12		Tee-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100840		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-13		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100841		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-14		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100842		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-15		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100843		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-16		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100844		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-17		Pipe-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100845		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-18		Pipe-to-Reducer	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100846		ISI-13142-37-B	ISI	-	-	-	-	-
R1.20-6	W-19		Reducer-to-Valve	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100852		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-1		Tee-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100853		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-2		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100854		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-3		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100855		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-4		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100856		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-5		Elbow-to-Valve	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100857		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-6		Valve-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100858		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-7		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100859		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100860		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-9		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100861		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-10		Elbow-to-Tee	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100862		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-11		Nozzle-to-Reducer	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100863		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-12		Reducer-to-Elbow	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100864		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-13		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100865		ISI-13142-37-C	ISI	-	-	-	-	-
R1.20-6	W-14		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100866		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-15		Elbow-to-Pipe	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100867		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-16		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100868		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-17		Elbow-to-Pipe	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100869		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-18		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100870		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-19		Elbow-to-Pipe	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100871		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-20		Pipe-to-Valve	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100872		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-21		Valve-to-Pipe	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100873		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-22		Pipe-to-Tee	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100874		ISI-13142-37-C	ISI	-	-	-	-
R1.20-6	W-23		Tee-to-Pipe	AUG	-	-	-	-
2	RHR Discharge A			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100890		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-1		Pump Nozzle/Red.Elt	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100891		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-2		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100892		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-3		Pipe-to-Elbow	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100893		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-4		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100894		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-5		Pipe-to-Elbow	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100895		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-6		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100896		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-7		Pipe-to-Elbow	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100897		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100898		ISI-13142-40-A	ISI	-	-	-	-	-
R1.20-6	W-9		Pipe-to-Flange	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100899		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-10		Flange-to-Pipe	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100900		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-11		Pipe-to-Valve	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100901		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-12		Valve-to-Elbow	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100902		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-13		Elbow-to-Pipe	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100903		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-14		Pipe-to-Tee	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100904		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-15		Pipe-to-Valve	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100905		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-16		Reducer-to-Pipe	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100906		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-17		Tee-to-Reducer	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100907		ISI-13142-40-A	ISI	-	-	-	-
R1.20-6	W-18		Tee-to-Elbow	AUG	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100908 W-19 HPCI Water Side Dsch		ISI-13142-40-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100909 W-20 HPCI Water Side Dsch		ISI-13142-40-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100910 W-21 HPCI Water Side Dsch		ISI-13142-40-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100911 W-22 HPCI Water Side Dsch		ISI-13142-40-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100926 W-1 HPCI Water Side Dsch		ISI-13142-40-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100927 W-2 HPCI Water Side Dsch		ISI-13142-40-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100928 W-3 HPCI Water Side Dsch		ISI-13142-40-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100929 W-4 HPCI Water Side Dsch		ISI-13142-40-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100930 W-5 HPCI Water Side Dsch		ISI-13142-40-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100931		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-6		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100932		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-7		Pipe-to-Elbow	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100933		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100934		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-9		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100935		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-10		Pipe-to-Elbow	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100936		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-11		Pipe-to-Elbow	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100937		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-12		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100938		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-13		Pipe-to-Elbow	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100939		ISI-13142-40-B	ISI	-	-	-	-	-
R1.20-6	W-14		Elbow-to-Pipe	AUG	-	-	-	-	-
2	HPCI Water Side Dsch			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100940 W-15 HPCI Water Side Dsch		ISI-13142-40-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100941 W-16 HPCI Water Side Dsch		ISI-13142-40-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100942 W-17 HPCI Water Side Dsch		ISI-13142-40-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100943 W-18 HPCI Water Side Dsch		ISI-13142-40-B Elbow-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100950 W-1 RCIC Water Suction		ISI-13142-41-A Penetration-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100951 W-2 RCIC Water Suction		ISI-13142-41-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100952 W-3 RCIC Water Suction		ISI-13142-41-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100953 W-4 RCIC Water Suction		ISI-13142-41-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	100954 W-5 RCIC Water Suction		ISI-13142-41-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	100955 W-6 RCIC Water Suction		ISI-13142-41-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	100956 W-7 RCIC Water Suction		ISI-13142-41-A Elbow-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101043 W-1 RCIC Steam		ISI-13142-43-A Sweepolet-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101044 W-2 RCIC Steam		ISI-13142-43-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101045 W-3 RCIC Steam		ISI-13142-43-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101055 W-13 RCIC Steam	M1_I4-P3_RF25 / AUG / UT / / FP- PE-NDE-401	ISI-13142-43-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	s - - -
R-A R1.20-6 1	101056 W-14 RCIC Steam	M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401 M1_I4-P2_RF23 / AUG / UT / / FP- PE-NDE-401	ISI-13142-43-A Pipe-to-Valve	ISI AUG OWN PRE	- - - -	- - - -	c - - -	- - - -	- - - -
R-A R1.20-6 2	101083 W-27 RHR Service Water		ISI-13142-48-A Valve-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 2	101084 W-28 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	101085 W-29 RHR Service Water		ISI-13142-48-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101115 W-1 RHR Suction A		ISI-13142-49-A Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101116 W-2 RHR Suction A		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101117 W-3 RHR Suction A		ISI-13142-49-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101118 W-4 RHR Suction A		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101119 W-5 RHR Suction A		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101120 W-6 RHR Suction A		ISI-13142-49-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101121 W-7 RHR Suction A		ISI-13142-49-A Pipe-to-Branch	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101122 W-8 RHR Suction A		ISI-13142-49-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	101123 W-9 RHR Suction A		ISI-13142-49-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101124 W-10 RHR Suction A		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101125 W-11 RHR Suction A		ISI-13142-49-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101126 W-12 RHR Suction A		ISI-13142-49-A Elbow-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101127 W-13 RHR Suction A		ISI-13142-49-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101128 W-14 RHR Suction A		ISI-13142-49-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101129 W-15 RHR Suction A		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101130 W-16 RHR Suction B		ISI-13142-49-A Tee-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101131 W-17 RHR Suction B		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3	
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	101132 W-18 RHR Suction B		ISI-13142-49-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101133 W-19 RHR Suction B		ISI-13142-49-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101134 W-20 RHR Suction B		ISI-13142-49-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101135 W-21 RHR Suction B		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101136 W-22 RHR Suction B		ISI-13142-49-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101137 W-23 RHR Suction B		ISI-13142-49-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101138 W-24 RHR Suction B		ISI-13142-49-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101140 W-1 RHR A		ISI-13142-51-A Pump-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101141 W-2 RHR A		ISI-13142-51-A Reducer-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101142		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-3		Valve-to-Elbow	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101143		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-4		Elbow-to-Elbow	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101144		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-5		Elbow-to-Valve	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101145		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-6		Valve-to-Pipe	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101146		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-7		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101147		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-8		Elbow-to-Reducer	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101148		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-9		Reducer-to-Tee	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101149		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-10		Pump-to-Reducer	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101150		ISI-13142-51-A	ISI	-	-	-	-	-
R1.20-6	W-11		Reducer-to-Elbow	AUG	-	-	-	-	-
2	RHR A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	101151 W-12 RHR A		ISI-13142-51-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101152 W-13 RHR A		ISI-13142-51-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101153 W-14 RHR A		ISI-13142-51-A Elbow-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101154 W-15 RHR A		ISI-13142-51-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101155 W-16 RHR A		ISI-13142-51-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101156 W-17 RHR A		ISI-13142-51-A Elbow-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101157 W-18 RHR A		ISI-13142-51-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101158 W-19 RHR A		ISI-13142-51-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101159 W-20 RHR A		ISI-13142-51-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	101160 W-21 RHR A		ISI-13142-51-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101161 W-22 RHR A		ISI-13142-51-A Elbow-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101162 W-23 RHR A		ISI-13142-51-A Tee-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101163 W-24 RHR A		ISI-13142-51-A Valve-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101164 W-25 RHR A		ISI-13142-51-A Reducer-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101175 W-1 Containment Spray		ISI-13142-51-B Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101176 W-2 Containment Spray		ISI-13142-51-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101177 W-3 Containment Spray		ISI-13142-51-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101178 W-4 Containment Spray		ISI-13142-51-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101179		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-5		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101180		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-6		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101181		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-7		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101182		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101183		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-9		Pipe-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101184		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-10		Pipe-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101185		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-11		Pipe-to-Tee	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101186		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-12		Tee-to-Pipe	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101187		ISI-13142-51-B	ISI	-	-	-	-	-
R1.20-6	W-13		Pipe-to-Reducer	AUG	-	-	-	-	-
2	Containment Spray			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 2	101188 W-14 Containment Spray		ISI-13142-51-B Reducer-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101189 W-15 Containment Spray		ISI-13142-51-B Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101190 W-16 Containment Spray		ISI-13142-51-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101299 W-1 Fuel Pool Emergency Coolin		ISI-13142-62 Valve-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101301 W-2 Fuel Pool Emergency Coolin		ISI-13142-62 Flange-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101302 W-3 Fuel Pool Emergency Coolin		ISI-13142-62 Elbow-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101303 W-4 Fuel Pool Emergency Coolin		ISI-13142-62 Flange-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101304 W-5 Fuel Pool Emergency Coolin		ISI-13142-62 Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	101305 W-6 Fuel Pool Emergency Coolin		ISI-13142-62 Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101306		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-7		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101307		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101308		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-9		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101309		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-10		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101310		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-11		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101311		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-12		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101312		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-13		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101313		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-14		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101314		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-15		Pipe-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A	101315		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-16		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101316		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-17		Elbow-to-Elbow	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101317		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-18		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101318		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-19		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101319		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-20		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101320		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-21		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101321		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-22		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101322		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-23		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101323		ISI-13142-62	ISI	-	-	-	-	-	-	-
R1.20-6	W-24		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101324		ISI-13142-62	ISI	-	-	-	-	-
R1.20-6	W-25		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101325		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-1		Valve-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101327		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-3		Flange-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101328		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-2		Pipe-to-Flange	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101330		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-4		Elbow-to-Flange	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101331		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-5		Flange-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101332		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-6		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101333		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-7		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101334		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-8		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101335		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-9		Elbow-to-Pipe	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101336		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-10		Pipe-to-Elbow	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101337		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-11		Elbow-to-Pipe	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101338		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-12		Pipe-to-Pipe	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101339		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-13		Pipe-to-Elbow	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101340		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-14		Elbow-to-Pipe	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101341		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-15		Pipe-to-Elbow	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101342		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-16		Elbow-to-Pipe	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101343		ISI-13142-67	ISI	-	-	-	-
R1.20-6	W-17		Pipe-to-Elbow	AUG	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101344		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-18		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101345		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-19		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101346		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-20		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101347		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-21		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101348		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-22		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101349		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-23		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101350		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-24		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101351		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-25		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101352		ISI-13142-67	ISI	-	-	-	-	-
R1.20-6	W-26		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Fuel Pool Emergency Coolin			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3		
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	101353		ISI-13142-67	ISI	-	-	-	-	-	-	-
R1.20-6	W-27		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101354		ISI-13142-67	ISI	-	-	-	-	-	-	-
R1.20-6	W-28		Pipe-to-Weldolet	AUG	-	-	-	-	-	-	-
2	Fuel Pool Emergency Coolin _g			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101432		ISI-74215A	ISI	-	-	-	-	-	-	-
R1.20-6	W-9		Pipe-to-Tee	AUG	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101433		ISI-74215A	ISI	-	-	-	-	-	-	-
R1.20-6	W-10		Tee-to-Pipe	AUG	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101434		ISI-74215A	ISI	-	-	-	-	-	-	-
R1.20-6	W-11		Pipe-to-Valve	AUG	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101435		ISI-74215A	ISI	-	-	-	-	-	-	-
R1.20-6	W-12		Valve-to-Pipe	AUG	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101436		ISI-74215A	ISI	-	-	-	-	-	-	-
R1.20-6	W-13		Pipe-to-Tee	AUG	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101437		ISI-74215A	ISI	-	-	-	-	-	-	-
R1.20-6	W-14		Tee-to-Pipe	AUG	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101438		ISI-74215A	ISI	-	-	-	-	-	-	-
R1.20-6	W-15		Pipe-to-Valve	AUG	-	-	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	101439 W-16 Standby Liquid Cntr		ISI-74215A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101440 W-17 Standby Liquid Cntr		ISI-74215A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101441 W-18 Standby Liquid Cntr		ISI-74215A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101442 W-19 Standby Liquid Cntr		ISI-74215A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101443 W-20 Standby Liquid Cntr		ISI-74215A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101444 W-21 Standby Liquid Cntr		ISI-74215A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101445 W-22 Standby Liquid Cntr		ISI-74215A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101446 W-23 Standby Liquid Cntr		ISI-74215A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101447 W-24 Standby Liquid Cntr		ISI-74215A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101448		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-25		Pipe-to-Reducer	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101449		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-26		Tee-to-Pipe	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101450		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-27		Pipe-to-Tee	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101451		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-28		Tee-to-Pipe	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101452		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-29		Pipe-to-Reducer	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101453		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-30		Tee-to-Pipe	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101454		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-31		Pipe-to-Coupling	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101455		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-32		Coupling-to-Tee	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101456		ISI-74215A	ISI	-	-	-	-	-
R1.20-6	W-33		Tee-to-Coupling	AUG	-	-	-	-	-
1	Standby Liquid Cntr			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	101457 W-34 Standby Liquid Cntr		ISI-74215A Tee-to-Safe End	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101458 W-35 Standby Liquid Cntr	M1_I4-P3_RF25 / ISI / UT / /	ISI-74215A Safe End-to-Nozzle	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101462 W-1 Head Vent		ISI-782A Flange-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101463 W-2 Head Vent		ISI-782A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101464 W-3 Head Vent		ISI-782A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101465 W-4 Head Vent		ISI-782A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101466 W-5 Head Vent		ISI-782A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101467 W-6 Head Vent		ISI-782A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101468 W-7 Head Vent		ISI-782A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101469		ISI-782A	ISI	-	-	-	-
R1.20-6	W-8		Pipe-to-Elbow	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101470		ISI-782A	ISI	-	-	-	-
R1.20-6	W-9		Elbow-to-Pipe	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101471		ISI-782A	ISI	-	-	-	-
R1.20-6	W-10		Pipe-to-Elbow	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101472		ISI-782A	ISI	-	-	-	-
R1.20-6	W-11		Elbow-to-Pipe	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101473		ISI-782A	ISI	-	-	-	-
R1.20-6	W-12		Pipe-to-Tee	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101474		ISI-782A	ISI	-	-	-	-
R1.20-6	W-13		Pipe-to-Boss	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101475		ISI-782A	ISI	-	-	-	-
R1.20-6	W-14	M1_I4-P1_RF22 / PSI / MT / / PEI-	Valve-to-Pipe	AUG	-	-	-	-
1	Head Vent	02.02.01		OWN	-	-	-	-
				PRE	-	c	-	-
R-A	101476		ISI-782A	ISI	-	-	-	-
R1.20-6	W-15	M1_I4-P1_RF22 / PSI / MT / / PEI-	Pipe-to-Valve	AUG	-	-	-	-
1	Head Vent	02.02.01		OWN	-	-	-	-
				PRE	-	c	-	-
R-A	101477		ISI-782A	ISI	-	-	-	-
R1.20-6	W-16		Elbow-to-Pipe	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	101478		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-17		Pipe-to-Elbow	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101479		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-18		Tee-to-Pipe	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101480		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-19		Tee-to-Pipe	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101481		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-20		Pipe-to-Elbow	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101482		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-21		Elbow-to-Pipe	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101483		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-22		Pipe-to-Elbow	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101484		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-23		Elbow-to-Pipe	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101485		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-24		Pipe-to-Tee	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	101486		ISI-782A	ISI	-	-	-	-	-	-
R1.20-6	W-25		Tee-to-Reduce	AUG	-	-	-	-	-	-
1	Head Vent			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101487		ISI-782A	ISI	-	-	-	-
R1.20-6	W-26		Tee-to-Pipe	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101488		ISI-782A	ISI	-	-	-	-
R1.20-6	W-27		Pipe-to-Valve	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101494		ISI-782A-A	ISI	-	-	-	-
R1.20-6	W-1		Flange-to-Reducer	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101495		ISI-782A-A	ISI	-	-	-	-
R1.20-6	W-2		Reducer-to-Pipe	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101496		ISI-782A-A	ISI	-	-	-	-
R1.20-6	W-3		Pipe-to-Coupling	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101497		ISI-782A-A	ISI	-	-	-	-
R1.20-6	W-4		Coupling-to-Pipe	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101498		ISI-782A-A	ISI	-	-	-	-
R1.20-6	W-5		Pipe-to-Tee	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101499		ISI-782A-A	ISI	-	-	-	-
R1.20-6	W-6		Tee-to-Reducer	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101500		ISI-782A-A	ISI	-	-	-	-
R1.20-6	W-7		Tee-to-Pipe	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 1	101501 W-8 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101502 W-9 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101503 W-10 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101504 W-11 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101505 W-12 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101506 W-13 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101507 W-14 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101508 W-15 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101509 W-16 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 1	101510 W-17 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101511 W-18 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101512 W-19 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101513 W-20 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101514 W-21 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101515 W-22 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101516 W-23 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101517 W-24 Head Vent		ISI-782A-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101518 W-25 Head Vent		ISI-782A-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	101519 W-26 Head Vent		ISI-782A-A Pipe-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101524 W-1 MS Condensate Lkof		ISI-786A Valve MS-161-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101525 W-2 MS Condensate Lkof		ISI-786A Reducer-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101526 W-3 MS Condensate Lkof		ISI-786A Tee-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101527 W-4 MS Condensate Lkof		ISI-786A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101528 W-6 MS Condensate Lkof		ISI-786A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101529 W-7 MS Condensate Lkof	M1_I4-P2_RF23 / PSI / PT / / PEI- 02.01.01	ISI-786A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101533 W-11 MS Condensate Lkof		ISI-786A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101534 W-12 MS Condensate Lkof	M1_I4-P1_RF21 / AUG / RT / RT / 20.A.100-1992	ISI-786A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - c - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101535		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-13	M1_I4-P1_RF21 / PSI / / /	Pipe-to-Pipe	AUG	-	-	-	-	-
1	MS Condensate Lkof	M1_I4-P2_RF23 / PSI / PT / / PEI-02.01.01		OWN	-	-	-	-	-
				PRE	c	-	-	B	-
R-A	101536		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-14	M1_I4-P1_RF21 / PSI / / /	Pipe-to-Valve	AUG	-	-	-	-	-
1	MS Condensate Lkof	M1_I4-P2_RF23 / PSI / PT / / PEI-02.01.01		OWN	-	-	-	-	-
				PRE	c	-	-	B	-
R-A	101537		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-15		Valve-to-Pipe	AUG	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101538		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-16		Pipe-to-Elbow	AUG	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101539		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-17		Elbow-to-Pipe	AUG	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101540		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-18		Pipe-to-Elbow	AUG	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101541		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-19		Elbow-to-Pipe	AUG	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101542		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-20		Pipe-to-Tee	AUG	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101543		ISI-786A	ISI	-	-	-	-	-
R1.20-6	W-21		Reducer-to-Tee	AUG	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	101544 W-22 MS Condensate Lkof		ISI-786A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101545 W-23 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101546 W-24 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101547 W-25 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101548 W-26 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101549 W-27 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101550 W-28 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101551 W-29 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	101552 W-30 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101553		ISI-786A	ISI	-	-	-	-
R1.20-6	W-31		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101554		ISI-786A	ISI	-	-	-	-
R1.20-6	W-32		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101555		ISI-786A	ISI	-	-	-	-
R1.20-6	W-33		Pipe-to-Coupling	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101556		ISI-786A	ISI	-	-	-	-
R1.20-6	W-34		Coupling-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101557		ISI-786A	ISI	-	-	-	-
R1.20-6	W-35		Pipe-to-Coupling	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101558		ISI-786A	ISI	-	-	-	-
R1.20-6	W-36		Coupling-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101559		ISI-786A	ISI	-	-	-	-
R1.20-6	W-37		Pipe-to-Tee	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101560		ISI-786A	ISI	-	-	-	-
R1.20-6	W-38		Valve-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101561		ISI-786A	ISI	-	-	-	-
R1.20-6	W-39		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101562		ISI-786A	ISI	-	-	-	-
R1.20-6	W-40		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101563		ISI-786A	ISI	-	-	-	-
R1.20-6	W-41		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101564		ISI-786A	ISI	-	-	-	-
R1.20-6	W-42		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101565		ISI-786A	ISI	-	-	-	-
R1.20-6	W-43		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101566		ISI-786A	ISI	-	-	-	-
R1.20-6	W-44		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101567		ISI-786A	ISI	-	-	-	-
R1.20-6	W-45		Tee-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101568		ISI-786A	ISI	-	-	-	-
R1.20-6	W-46		Valve-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101569		ISI-786A	ISI	-	-	-	-
R1.20-6	W-47		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101570		ISI-786A	ISI	-	-	-	-
R1.20-6	W-48		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A	101571		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-49		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101572		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-5		Pipe-to-Tee	AUG	-	-	-	-	s	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101573		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-50		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101574		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-51		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101575		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-52		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101576		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-53		Pipe-to-Tee	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101577		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-54		Valve-to-Pipe	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101578		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-55		Pipe-to-Coupling	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101579		ISI-786A	ISI	-	-	-	-	-	-	-
R1.20-6	W-56		Coupling-to-Pipe	AUG	-	-	-	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 1	101580 W-57 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101581 W-58 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101582 W-59 MS Condensate Lkof		ISI-786A Pipe-to-Tee	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101583 W-60 MS Condensate Lkof		ISI-786A Reducer-to-Tee	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101584 W-61 MS Condensate Lkof		ISI-786A Tee-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101585 W-62 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101586 W-63 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101587 W-64 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -
R-A R1.20-6 1	101588 W-65 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - -	- - - -	- - - -	- - - -	- - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	101589 W-66 MS Condensate Lkof		ISI-786A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	101590 W-67 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	101591 W-68 MS Condensate Lkof		ISI-786A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	101592 W-69 MS Condensate Lkof		ISI-786A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 1	101593 W-70 MS Condensate Lkof		ISI-786A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	101833 W-18 LS U&D CRD Scram Header B		ISI-93268-3A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	101839 W-24 LS D CRD Scram Header B		ISI-93268-3A Reducer-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	101840 W-25 LS U&D CRD Scram Header B		ISI-93268-3A Tee-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	101841 W-26 LS U&D CRD Scram Header B		ISI-93268-3A Tee-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101842		ISI-93268-3A	ISI	-	-	-	-	-
R1.20-6	W-27 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101843		ISI-93268-3A	ISI	-	-	-	-	-
R1.20-6	W-28 LS U&D		Pipe-to-Elbow	AUG	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101844		ISI-93268-3A	ISI	-	-	-	-	-
R1.20-6	W-29 LS U&D		Elbow-to-Elbow	AUG	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101845		ISI-93268-3A	ISI	-	-	-	-	-
R1.20-6	W-30 LS U&D		Elbow-to-Reducer	AUG	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101846		ISI-93268-3A	ISI	-	-	-	-	-
R1.20-6	W-31 LS U&D		Reducer-to-Pipe	AUG	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101847		ISI-93268-3A	ISI	-	-	-	-	-
R1.20-6	W-32 LS U		Pipe-to-Cap	AUG	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102182		ISI-97007-A	ISI	-	-	-	-	-
R1.20-6	W-1		Nozzle-to-Safe Enc	AUG	-	-	-	-	-
1	Inst Nozzle N-11B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102183		ISI-97007-A	ISI	-	-	-	-	-
R1.20-6	W-2		Safe End-to-Coupling	AUG	-	-	-	-	-
1	Inst Nozzle N-11B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102184		ISI-97007-A	ISI	-	-	-	-	-
R1.20-6	W-3		Coupling-to-Pipe	AUG	-	-	-	-	-
1	Inst Nozzle N-11B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	102185 W-4 Inst Nozzle N-11B		ISI-97007-A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102186 W-5 Inst Nozzle N-11B		ISI-97007-A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102187 W-6 Inst Nozzle N-11B		ISI-97007-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102188 W-7 Inst Nozzle N-11B		ISI-97007-A Tee-to-Reduce	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102189 W-1 Inst Nozzle N-11A		ISI-97008-A Nozzle-to-Safe Enc	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102190 W-2 Inst Nozzle N-11A		ISI-97008-A Safe End-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102191 W-3 Inst Nozzle N-11A		ISI-97008-A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102192 W-5 Inst Nozzle N-11A		ISI-97008-A Tee-to-Reduce	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	102193 W-4 Inst Nozzle N-11A		ISI-97008-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	102388		ISI Fig 1	ISI	-	-	-	-
R1.20-6	W-9		N- 6B Noz/Flg Weld	AUG	-	-	-	-
1	Top Head			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102389		ISI Fig 1	ISI	-	-	-	-
R1.20-6	W-10		N- 7 Noz / Flg Weld	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102733		ISI-19	ISI	-	-	-	-
R1.20-6	W-3		Reducer-to-Pipe	AUG	-	-	-	-
1	Inst Nozzle N-12A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102734		ISI-19	ISI	-	-	-	-
R1.20-6	W-4		Pipe-to-Coupling	AUG	-	-	-	-
1	Inst Nozzle N-12A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102735		ISI-19	ISI	-	-	-	-
R1.20-6	W-5		Coupling-to-Coupling	AUG	-	-	-	-
1	Inst Nozzle N-12A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102738		ISI-19	ISI	-	-	-	-
R1.20-6	W-8		Reducer-to-Pipe	AUG	-	-	-	-
1	Inst Nozzle N-12B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102739		ISI-19	ISI	-	-	-	-
R1.20-6	W-9		Pipe-to-Coupling	AUG	-	-	-	-
1	Inst Nozzle N-12B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	102740		ISI-19	ISI	-	-	-	-
R1.20-6	W-10		Coupling-to-Coupling	AUG	-	-	-	-
1	Inst Nozzle N-12B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	105001		ISI-782A	ISI	-	-	-	-
R1.20-6	W-23A		Pipe-to-Coupling	AUG	-	-	-	-
1	Head Vent			OWN	-	-	-	-
				PRE	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 1	105002 W-23B Head Vent		ISI-782A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	105003 W-26A Head Vent		ISI-782A Pipe-to-Coupling	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	105004 W-26B Head Vent		ISI-782A Coupling-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	105026 W-17A Head Vent		ISI-782A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	105027 W-17B Head Vent		ISI-782A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	105028 W-17C Head Vent		ISI-782A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 1	105029 W-17D Head Vent		ISI-782A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106021 W-26 Fuel Pool Emergency Cooling		ISI-13142-62 Pipe-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106022 W-1 Vacuum Relief & CGCS Outlet Div.1		ISI-94966-A Flange-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	106023		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-2		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106024		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-3		Pipe-to-Tee	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106025		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-4		Tee-to-Pipe	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106026		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-5		Pipe-to-Tee	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106027		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-6		Tee-to-Pipe	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106028		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-7		Pipe-to-Weldolet	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106029		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-8		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106030		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-9		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106031		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-10		PIPE-to-PENETRATION X-218	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	106032		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-11		Flange-to-Pipe	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106033		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-12		Pipe-to-Tee	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106034		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-13		Flange-to Elbow (45°	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106035		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-14		Elbow (45°)-to Pipe	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106036		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-15		Pipe-to-Pipe	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106037		ISI-94966-A	ISI	-	-	-	-	-
R1.20-6	W-16		Pipe-to-Tee	AUG	-	-	-	-	-
2	Vacuum Relief & CGCS Outlet Div.1			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106047		ISI-94966-B	ISI	-	-	-	-	-
R1.20-6	W-1		VALVE (AO-2381) TO PIPE WELD	AUG	-	-	-	-	-
2	Containment Air Purge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106048		ISI-94966-B	ISI	-	-	-	-	-
R1.20-6	W-2		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Containment Air Purge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106049		ISI-94966-B	ISI	-	-	-	-	-
R1.20-6	W-3		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Containment Air Purge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	106050 W-4 Containment Air Purge		ISI-94966-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106051 W-5 Containment Air Purge		ISI-94966-B PIPE TO PENETRATION X-26 WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106054 W-1 CGCS OUTLET DIV 2		ISI-94699-A PENETRATION X-205 TO PIPE WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106055 W-2 CGCS OUTLET DIV 2		ISI-94699-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106056 W-3 CGCS OUTLET DIV 2		ISI-94699-A Elbow-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106057 W-4 CGCS OUTLET DIV 2		ISI-94699-A Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106058 W-5 CGCS OUTLET DIV 2		ISI-94699-A PIPE TO 6" FITTING WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106059 W-6 CGCS OUTLET DIV 2		ISI-94699-A Pipe-to-Elbow (45°)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	
R-A R1.20-6 2	106060 W-7 CGCS OUTLET DIV 2		ISI-94699-A 45 ELBOW TO VALVE (AO-2383) WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	106061 W-8 CGCS OUTLET DIV 2		ISI-94699-A 6" FITTING TO PIPE WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106066 W-1 CGCS INLET DIV 1 & 2		ISI-94879-A PENETRATION X-205 TO PIPE WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106067 W-2 CGCS INLET DIV 1 & 2		ISI-94879-A Pipe-to-Elbow (45°)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106068 W-3 CGCS INLET DIV 1 & 2		ISI-94879-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106069 W-4 CGCS INLET DIV 1 & 2		ISI-94879-A Pipe-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106070 W-5 CGCS INLET DIV 1 & 2		ISI-94879-A Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106071 W-1 Standby Gas Trtmnt & Rx Plenur		ISI-105531-A PENETRATION X-25 TO PIPE WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106072 W-2 Standby Gas Trtmnt & Rx Plenur		ISI-105531-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106073 W-3 Standby Gas Trtmnt & Rx Plenur		ISI-105531-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3		
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011		
R-A	106074		ISI-105531-A	ISI	-	-	-	-	-	-
R1.20-6	W-4		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	Standby Gas Trtmnt & Rx Plenurr			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106075		ISI-105531-A	ISI	-	-	-	-	-	-
R1.20-6	W-5		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	Standby Gas Trtmnt & Rx Plenurr			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106076		ISI-105531-A	ISI	-	-	-	-	-	-
R1.20-6	W-6		PIPE TO VALVE (AO-2386) WELD	AUG	-	-	-	-	-	-
2	Standby Gas Trtmnt & Rx Plenurr			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106078		ISI-158074-A	ISI	-	-	-	-	-	-
R1.20-6	W-1		PENETRATION X-240 TO PIPE WELD	AUG	-	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106079		ISI-158074-A	ISI	-	-	-	-	-	-
R1.20-6	W-2		Pipe-to-Elbow	AUG	-	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106080		ISI-158074-A	ISI	-	-	-	-	-	-
R1.20-6	W-3		Elbow-to-Pipe	AUG	-	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106081		ISI-158074-A	ISI	-	-	-	-	-	-
R1.20-6	W-4		Pipe-to-Elbow (45°)	AUG	-	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106082		ISI-158074-A	ISI	-	-	-	-	-	-
R1.20-6	W-5		45 ELBOW TO PIPE WELD	AUG	-	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-
R-A	106083		ISI-158074-A	ISI	-	-	-	-	-	-
R1.20-6	W-6		PIPE TO VALVE (AO-4539) WELD	AUG	-	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-	-
				PRE	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	106084 W-7 Torus HPV		ISI-158074-A VALVE (AO-4539) TO PIPE WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106085 W-8 Torus HPV		ISI-158074-A PIPE TO VALVE (AO-4540) WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106086 W-9 Torus HPV		ISI-158074-A VALVE (AO-4540) TO PIPE WELD	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106087 W-10 Torus HPV		ISI-158074-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106088 W-11 Torus HPV		ISI-158074-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106089 W-12 Torus HPV		ISI-158074-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106090 W-13 Torus HPV		ISI-158074-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106091 W-14 Torus HPV		ISI-158074-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106092 W-15 Torus HPV		ISI-158074-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	106093		ISI-158074-A	ISI	-	-	-	-	-
R1.20-6	W-16		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106094		ISI-158074-A	ISI	-	-	-	-	-
R1.20-6	W-17		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106095		ISI-158074-A	ISI	-	-	-	-	-
R1.20-6	W-18		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106096		ISI-158074-A	ISI	-	-	-	-	-
R1.20-6	W-19		Reducer-to-Pipe	AUG	-	-	-	-	-
2	Torus HPV			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106840		ISI-13142-26-D	ISI	-	-	-	-	-
R1.20-6	W-1		8" TO 6" REDUCER	AUG	-	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106841		ISI-13142-26-D	ISI	-	-	-	-	-
R1.20-6	W-2		Reducer-to-Tee	AUG	-	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106842		ISI-13142-26-D	ISI	-	-	-	-	-
R1.20-6	W-3		Tee-to-Pipe	AUG	-	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106843		ISI-13142-26-D	ISI	-	-	-	-	-
R1.20-6	W-4		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106844		ISI-13142-26-D	ISI	-	-	-	-	-
R1.20-6	W-5		Elbow-to-Elbow	AUG	-	-	-	-	-
2	Core Spray B Discharge			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 2	106845 W-6 Core Spray B Discharge		ISI-13142-26-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106846 W-7 Core Spray B Discharge		ISI-13142-26-D PIPE TO REDUCER 8"X12"	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106870 W-1 Core Spray A Discharge		ISI-13142-31-D VALVE REDUCER TO PIPE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106871 W-2 Core Spray A Discharge		ISI-13142-31-D Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106872 W-3 Core Spray A Discharge		ISI-13142-31-D Elbow-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106873 W-4 Core Spray A Discharge		ISI-13142-31-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106874 W-5 Core Spray A Discharge		ISI-13142-31-D Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106875 W-6 Core Spray A Discharge		ISI-13142-31-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106876 W-7 Core Spray A Discharge		ISI-13142-31-D Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	106877 W-8 Core Spray A Discharge		ISI-13142-31-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106878 W-9 Core Spray A Discharge		ISI-13142-31-D Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106879 W-10 Core Spray A Discharge		ISI-13142-31-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106930 W-1 RHR B		ISI-13142-51-C M0-2007 VALVE TO PIPE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106931 W-2 RHR B		ISI-13142-51-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106932 W-3 RHR B		ISI-13142-51-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106933 W-4 RHR B		ISI-13142-51-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106934 W-5 RHR B		ISI-13142-51-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106935 W-6 RHR B		ISI-13142-51-C Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	106936 W-7 RHR B		ISI-13142-51-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106937 W-8 RHR B		ISI-13142-51-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106938 W-9 RHR B		ISI-13142-51-C PIPE TO REDUCER VALVE M0-2009	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106939 W-10 RHR B		ISI-13142-51-C REDUCER TO VALVE M0-2009	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106940 W-11 RHR B		ISI-13142-51-C VALVE 2009 TO REDUCER	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106941 W-12 RHR B		ISI-13142-51-C Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106942 W-13 RHR B		ISI-13142-51-C Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106943 W-14 RHR B		ISI-13142-51-C 10"TEE TO PIPE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106944 W-15 RHR B		ISI-13142-51-C PIPE TO X-210A	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	106945		ISI-13142-51-C	ISI	-	-	-	-	-
R1.20-6	W-16		12" TEE TO REDUCER	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106955		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-1		MO-2021 VALVE TO PIPE	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106956		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-2		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106957		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-3		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106958		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-4		Pipe-to-Pipe	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106959		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-5		Pipe-to-Pipe	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106960		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-6		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106961		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-7		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106962		ISI-13142-51-D	ISI	-	-	-	-	-
R1.20-6	W-8		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-6 2	106963 W-9 RHR B		ISI-13142-51-D Elbow-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106964 W-10 RHR B		ISI-13142-51-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106965 W-11 RHR B		ISI-13142-51-D Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106966 W-12 RHR B		ISI-13142-51-D ELBOW TO VALVE MO-2023	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106967 W-13 RHR B		ISI-13142-51-D VALVE M0-2023 TO PIPE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106968 W-14 RHR B		ISI-13142-51-D PIPE TO VALVE RHR-74-2	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106969 W-15 RHR B		ISI-13142-51-D RHR 74-2 VALVE TO ELBOW	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106970 W-16 RHR B		ISI-13142-51-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	106975 W-17 RHR B		ISI-13142-51-D PIPE TO X-39A	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case		Period 1		Period 2		Period 3
					RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-6 2	107006 W-21 Vacuum Relief & CGCS Outlet Div.1		ISI-94966-A Pipe-to-Weldolet	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	107020 W-1 RHR A		ISI-13142-37-D MO-2006 VALVE TO PIPE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	107021 W-2 RHR A		ISI-13142-37-D Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	107022 W-3 RHR A		ISI-13142-37-D Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	107023 W-4 RHR A	M1_I4-P1_RF22 / PSI / MT / / PEI- 02.02.01 M1_I4-P1_RF22 / PSI / UT / / PEI- 02.03.01	ISI-13142-37-D Pipe-to-Red Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	107024 W-5 RHR A	M1_I4-P1_RF22 / PSI / MT / / PEI- 02.02.01 M1_I4-P1_RF22 / PSI / UT / / PEI- 02.03.01	ISI-13142-37-D REDUCER ELBOW TO MO-2008 VALVE	ISI AUG OWN PRE	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	107025 W-6 RHR A		ISI-13142-37-D MO-2008 VALVE TO PIPE	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-6 2	107026 W-7 RHR A		ISI-13142-37-D Branch-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	107027		ISI-13142-37-D	ISI	-	-	-	-
R1.20-6	W-8		PIPE TO X-210B	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107040		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-1		MO-2020 VALVE TO TEE	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107041		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-2		Tee-to-Pipe	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107042		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-3		PIPE TO FLANGE REDUCER	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107043		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-4		Tee-to-Pipe	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107044		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-5		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107045		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-6		ELBOW TO VALVE MO-2022	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107046		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-7		MO-2022 VALVE TO ELBOW	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107047		ISI-13142-37-E	ISI	-	-	-	-
R1.20-6	W-8		ELBOW TO RHR-74-1 VALVE	AUG	-	-	-	-
2	RHR A			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100054 W-2 RHR Suction A		ISI-13142-17-A Valve-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100068 W-3 RHR Suction A		ISI-13142-17-A Reducer-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100069 W-4 RHR Suction A		ISI-13142-17-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100070 W-5 RHR Suction A		ISI-13142-17-A Pipe-to-Weldolet	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100071 W-6 RHR Suction A		ISI-13142-17-A Pipe-to-Weldolet	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100072 W-7 RHR Suction A		ISI-13142-17-A Pipe-to-Weldolet	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100073 W-8 RHR Suction A		ISI-13142-17-A Pipe-to-Cap	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100074 W-9 RHR Suction A		ISI-13142-17-A Weldolet-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100075 W-10 RHR Suction A		ISI-13142-17-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100076		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-11		Pipe-to-Pipe	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100077		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-12		Pipe-to-Valve	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100078		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-13		Valve-to-Elbow	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100079		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-14		Elbow-to-Elbow	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100080		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-15		Elbow-to-Pump	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100081		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-16		Weldolet-to-Pipe	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100082		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-17		Pipe-to-Pipe	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100083		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-18		Pipe-to-Pipe	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100084		ISI-13142-17-A	ISI	-	-	-	-
R1.20-7	W-19		Pipe-to-Valve	AUG	-	-	-	-
2	RHR Suction A			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100085 W-20 RHR Suction A		ISI-13142-17-A Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100086 W-21 RHR Suction A		ISI-13142-17-A Elbow-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100087 W-22 RHR Suction A		ISI-13142-17-A Elbow-to-Pump	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100095 W-30 RHR Suction A		ISI-13142-17-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100096 W-31 RHR Suction A		ISI-13142-17-A Valve-to-Weldolet	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100097 W-32 RHR Suction A		ISI-13142-17-A Valve-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100144 W-8 RHR Suction B		ISI-13142-17-C Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100145 W-9 RHR Suction B		ISI-13142-17-C Valve-to-Weldolet	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100146 W-10 RHR Suction B		ISI-13142-17-C Weldolet-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100147		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-11		Valve-to-Reducer	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100148		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-12		Reducer-to-Pipe	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100149		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-13		Pipe-to-Weldolet	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100150		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-14		Weldolet-to-Valve	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100151		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-15		Valve-to-Pipe	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100152		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-16		Pipe-to-Pipe	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100153		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-17		Pipe-to-Pipe	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100154		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-18		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100155		ISI-13142-17-C	ISI	-	-	-	-
R1.20-7	W-19		Elbow-to-Elbow	AUG	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100156		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-20		Elbow-to-Pump	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100157		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-21		Pipe-to-Weldolet	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100158		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-22		Weldolet-to-Valve	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100159		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-23		Valve-to-Pipe	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100160		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-24		Pipe-to-Pipe	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100161		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-25		Pipe-to-Pipe	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100162		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-26		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100163		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-27		Elbow-to-Elbow	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100164		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-28		Elbow-to-Pump	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100165		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-29		Valve-to-Pipe	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100166		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-30		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100167		ISI-13142-17-C	ISI	-	-	-	-	-
R1.20-7	W-31		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Suction B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100341		ISI-13142-20-A	ISI	-	-	-	-	-
R1.20-7	W-6		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100342		ISI-13142-20-A	ISI	-	-	-	-	-
R1.20-7	W-7		Elbow-to-Elbow	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100343		ISI-13142-20-A	ISI	-	-	-	-	-
R1.20-7	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100344		ISI-13142-20-A	ISI	-	-	-	-	-
R1.20-7	W-9		Pipe-to-Valve	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100345		ISI-13142-20-A	ISI	-	-	-	-	-
R1.20-7	W-10		Valve-to-Pipe	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100346		ISI-13142-20-A	ISI	-	-	-	-	-
R1.20-7	W-11		Pipe-to-Valve	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100347 W-12 Core Spray A		ISI-13142-20-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100348 W-13 Core Spray A		ISI-13142-20-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100349 W-14 Core Spray A		ISI-13142-20-A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100350 W-15 Core Spray A		ISI-13142-20-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100351 W-16 Core Spray A		ISI-13142-20-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100352 W-17 Core Spray A		ISI-13142-20-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100353 W-18 Core Spray A		ISI-13142-20-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100354 W-19 Core Spray A		ISI-13142-20-A Elbow-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100355 W-20 Core Spray A		ISI-13142-20-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100356 W-21 Core Spray A		ISI-13142-20-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100357 W-22 Core Spray A		ISI-13142-20-A Pipe-to-Pump	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100358 W-23 Core Spray A		ISI-13142-20-A Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100359 W-24 Core Spray A		ISI-13142-20-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100360 W-25 Core Spray A		ISI-13142-20-A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100371 W-6 Core Spray B		ISI-13142-20-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100372 W-7 Core Spray B		ISI-13142-20-B Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100373 W-8 Core Spray B		ISI-13142-20-B Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100374 W-9 Core Spray B		ISI-13142-20-B Valve-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100375 W-10 Core Spray B		ISI-13142-20-B Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100376 W-11 Core Spray B		ISI-13142-20-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100377 W-12 Core Spray B		ISI-13142-20-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100378 W-13 Core Spray B		ISI-13142-20-B Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100379 W-14 Core Spray B		ISI-13142-20-B Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100380 W-15 Core Spray B		ISI-13142-20-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100381 W-16 Core Spray B		ISI-13142-20-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100382 W-17 Core Spray B		ISI-13142-20-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100383 W-18 Core Spray B		ISI-13142-20-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-7 2	100384 W-19 Core Spray B		ISI-13142-20-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100385 W-20 Core Spray B		ISI-13142-20-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100386 W-21 Core Spray B		ISI-13142-20-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100387 W-22 Core Spray B		ISI-13142-20-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100388 W-23 Core Spray B		ISI-13142-20-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100389 W-24 Core Spray B		ISI-13142-20-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100390 W-25 Core Spray B		ISI-13142-20-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100391 W-26 Core Spray B		ISI-13142-20-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100392 W-27 Core Spray B		ISI-13142-20-B Elbow-to-Pump	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100434 W-1 Core Spray B		ISI-13142-26-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100435 W-2 Core Spray B		ISI-13142-26-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100436 W-3 Core Spray B		ISI-13142-26-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100437 W-4 Core Spray B		ISI-13142-26-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100438 W-5 Core Spray B		ISI-13142-26-A Elbow-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100454 W-12 Core Spray B		ISI-13142-26-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100455 W-1 Core Spray B		ISI-13142-26-B Reducer-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100456 W-2 Core Spray B		ISI-13142-26-B Pipe-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100457 W-3 Core Spray B		ISI-13142-26-B Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A	100458		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-4		Tee-to-Pipe	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100459		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-5		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100460		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-6		Elbow-to-Elbow	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100461		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-7		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100462		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-8		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100463		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-9		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100464		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-10		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100465		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-13		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	100466		ISI-13142-26-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-14		Pipe-to-Elbow	AUG	-	-	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

Category, Item No., Class	Summary No./ComplD/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100467		ISI-13142-26-B	ISI	-	-	-	-	-
R1.20-7	W-15		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100468		ISI-13142-26-B	ISI	-	-	-	-	-
R1.20-7	W-16		Pipe-to-Pipe	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100469		ISI-13142-26-B	ISI	-	-	-	-	-
R1.20-7	W-17		Pipe-to-Reducer	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100470		ISI-13142-26-B	ISI	-	-	-	-	-
R1.20-7	W-18		Reducer-to-Valve	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100471		ISI-13142-26-C	ISI	-	-	-	-	-
R1.20-7	W-1		Pump-to-Elbow	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100472		ISI-13142-26-C	ISI	-	-	-	-	-
R1.20-7	W-2		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100473		ISI-13142-26-C	ISI	-	-	-	-	-
R1.20-7	W-3		Pipe-to-Valve	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100474		ISI-13142-26-C	ISI	-	-	-	-	-
R1.20-7	W-4		Valve-to-Pipe	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100475		ISI-13142-26-C	ISI	-	-	-	-	-
R1.20-7	W-5		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100476 W-6 Core Spray B		ISI-13142-26-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100477 W-7 Core Spray B		ISI-13142-26-C Pipe-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100478 W-8 Core Spray B		ISI-13142-26-C Flange-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100479 W-9 Core Spray B		ISI-13142-26-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100480 W-10 Core Spray B		ISI-13142-26-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100481 W-11 Core Spray B		ISI-13142-26-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100482 W-12 Core Spray B		ISI-13142-26-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100483 W-13 Core Spray B		ISI-13142-26-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100484 W-14 Core Spray B		ISI-13142-26-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100485		ISI-13142-26-C	ISI	-	-	-	-
R1.20-7	W-15		Pipe-to-Elbow	AUG	-	-	-	-
2	Core Spray B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100486		ISI-13142-26-C	ISI	-	-	-	-
R1.20-7	W-16		Elbow-to-Pipe	AUG	-	-	-	-
2	Core Spray B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100487		ISI-13142-26-C	ISI	-	-	-	-
R1.20-7	W-17		Pipe-to-Elbow	AUG	-	-	-	-
2	Core Spray B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100488		ISI-13142-26-C	ISI	-	-	-	-
R1.20-7	W-18		Elbow-to-Pipe	AUG	-	-	-	-
2	Core Spray B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100489		ISI-13142-26-C	ISI	-	-	-	-
R1.20-7	W-19		Pipe-to-Flange	AUG	-	-	-	-
2	Core Spray B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100490		ISI-13142-26-C	ISI	-	-	-	-
R1.20-7	W-20		Flange-to-Pipe	AUG	-	-	-	-
2	Core Spray B			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100518		ISI-13142-31-B	ISI	-	-	-	-
R1.20-7	W-1		Tee-to-Valve	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100519		ISI-13142-31-B	ISI	-	-	-	-
R1.20-7	W-2		Valve-to-Reducer	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100520		ISI-13142-31-B	ISI	-	-	-	-
R1.20-7	W-3		Reducer-to-Flange	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-7 2	100521 W-4 Core Spray A		ISI-13142-31-B Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100522 W-5 Core Spray A		ISI-13142-31-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100523 W-6 Core Spray A		ISI-13142-31-B Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100524 W-7 Core Spray A		ISI-13142-31-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100525 W-8 Core Spray A		ISI-13142-31-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100526 W-9 Core Spray A		ISI-13142-31-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100527 W-10 Core Spray A		ISI-13142-31-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100528 W-11 Core Spray A		ISI-13142-31-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100529 W-12 Core Spray A		ISI-13142-31-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100530 W-13 Core Spray A		ISI-13142-31-B Pipe-to-Reducer	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100531 W-14 Core Spray A		ISI-13142-31-B Reducer-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100532 W-15 Core Spray A		ISI-13142-31-B Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100533 W-16 Core Spray A		ISI-13142-31-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100534 W-17 Core Spray A		ISI-13142-31-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100535 W-18 Core Spray A		ISI-13142-31-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100536 W-19 Core Spray A		ISI-13142-31-B Elbow-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100537 W-1 Core Spray A		ISI-13142-31-C Pump-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100538 W-2 Core Spray A		ISI-13142-31-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	100539		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-3		Pipe-to-Valve	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100540		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-4		Valve-to-Pipe	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100541		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-5		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100542		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-6		Elbow-to-Elbow	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100543		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-7		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100544		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-8		Pipe-to-Elbow	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100545		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-9		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100546		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-10		Pipe-to-Flange	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	100547		ISI-13142-31-C	ISI	-	-	-	-	-
R1.20-7	W-11		Flange-to-Pipe	AUG	-	-	-	-	-
2	Core Spray A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100548 W-12 Core Spray A		ISI-13142-31-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100549 W-13 Core Spray A		ISI-13142-31-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100550 W-14 Core Spray A		ISI-13142-31-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100551 W-15 Core Spray A		ISI-13142-31-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100552 W-16 Core Spray A		ISI-13142-31-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100553 W-17 Core Spray A		ISI-13142-31-C Elbow-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100554 W-18 Core Spray A		ISI-13142-31-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100555 W-19 Core Spray A		ISI-13142-31-C Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100556 W-20 Core Spray A		ISI-13142-31-C Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	100557		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-21		Elbow-to-Elbow	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100558		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-22		Elbow-to-Pipe	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100559		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-23		Pipe-to-Flange	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100560		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-24		Flange-to-Pipe	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100561		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-25		Pipe-to-Elbow	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100562		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-26		Elbow-to-Elbow	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100563		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-27		Elbow-to-Elbow	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100564		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-28		Elbow-to-Pipe	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	100565		ISI-13142-31-C	ISI	-	-	-	-
R1.20-7	W-29		Pipe-to-Tee	AUG	-	-	-	-
2	Core Spray A			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	100957 W-8 RCIC Water Suction		ISI-13142-41-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100958 W-9 RCIC Water Suction		ISI-13142-41-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100959 W-10 RCIC Water Suction		ISI-13142-41-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	100960 W-11 RCIC Water Suction		ISI-13142-41-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101046 W-4 RCIC Steam		ISI-13142-43-A Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101047 W-5 RCIC Steam		ISI-13142-43-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101048 W-6 RCIC Steam		ISI-13142-43-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101049 W-7 RCIC Steam		ISI-13142-43-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101050 W-8 RCIC Steam		ISI-13142-43-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	101051		ISI-13142-43-A	ISI	-	-	-	-
R1.20-7	W-9		Pipe-to-Elbow	AUG	-	-	-	-
1	RCIC Steam			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101052		ISI-13142-43-A	ISI	-	-	-	-
R1.20-7	W-10		Elbow-to-Pipe	AUG	-	-	-	-
1	RCIC Steam			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101053		ISI-13142-43-A	ISI	-	-	-	-
R1.20-7	W-11		Pipe-to-Pipe	AUG	-	-	-	-
1	RCIC Steam			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101054		ISI-13142-43-A	ISI	-	-	-	-
R1.20-7	W-12		Pipe-to-Pipe	AUG	-	-	-	-
1	RCIC Steam			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101057		ISI-13142-48-A	ISI	-	-	-	-
R1.20-7	W-1		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101058		ISI-13142-48-A	ISI	-	-	-	-
R1.20-7	W-2		Elbow-to-Pipe	AUG	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101059		ISI-13142-48-A	ISI	-	-	-	-
R1.20-7	W-3		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101060		ISI-13142-48-A	ISI	-	-	-	-
R1.20-7	W-4		Elbow-to-Pipe	AUG	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	101061		ISI-13142-48-A	ISI	-	-	-	-
R1.20-7	W-5		Pipe-to-Elbow	AUG	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	101062 W-6 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101063 W-7 RHR Service Water		ISI-13142-48-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101064 W-8 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101065 W-9 RHR Service Water		ISI-13142-48-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101066 W-10 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101067 W-11 RHR Service Water		ISI-13142-48-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101068 W-12 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101069 W-13 RHR Service Water		ISI-13142-48-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101070 W-14 RHR Service Water		ISI-13142-48-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./ComplID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-7 2	101071 W-15 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101072 W-16 RHR Service Water		ISI-13142-48-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101073 W-17 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101074 W-18 RHR Service Water		ISI-13142-48-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101075 W-19 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101076 W-20 RHR Service Water		ISI-13142-48-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101077 W-21 RHR Service Water		ISI-13142-48-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101078 W-22 RHR Service Water		ISI-13142-48-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101079 W-23 RHR Service Water		ISI-13142-48-A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-7 2	101080 W-24 RHR Service Water		ISI-13142-48-A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101081 W-25 RHR Service Water		ISI-13142-48-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101082 W-26 RHR Service Water		ISI-13142-48-A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101086 W-1 RHR Service Water		ISI-13142-48-B Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101087 W-2 RHR Service Water		ISI-13142-48-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101088 W-3 RHR Service Water		ISI-13142-48-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101089 W-4 RHR Service Water		ISI-13142-48-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101090 W-5 RHR Service Water		ISI-13142-48-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101091 W-6 RHR Service Water		ISI-13142-48-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101092		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-7		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101093		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-8		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101094		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-9		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101095		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-10		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101096		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-11		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101097		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-12		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101098		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-13		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101099		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-14		Elbow-to-Pipe	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101100		ISI-13142-48-B	ISI	-	-	-	-	-
R1.20-7	W-15		Pipe-to-Elbow	AUG	-	-	-	-	-
2	RHR Service Water			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	101101 W-16 RHR Service Water		ISI-13142-48-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101102 W-17 RHR Service Water		ISI-13142-48-B Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101103 W-18 RHR Service Water		ISI-13142-48-B Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101388 W-23 Reactor Wtr Cleanup		ISI-73880-A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101401 W-9 Recirc A Drain Line		ISI-74209-1A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101402 W-10 Recirc A Drain Line		ISI-74209-1A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101403 W-11 Recirc A Drain Line		ISI-74209-1A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101404 W-12 Recirc A Drain Line		ISI-74209-1A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101405 W-13 Recirc A Drain Line		ISI-74209-1A Tee-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-7 1	101406 W-14 Recirc A Drain Line		ISI-74209-1A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101407 W-15 Recirc A Drain Line		ISI-74209-1A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101415 W-7 Recirc B Drain Line		ISI-74210-1A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101416 W-8 Recirc B Drain Line		ISI-74210-1A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101417 W-9 Recirc B Drain Line		ISI-74210-1A Tee-to-Flange	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101418 W-10 Recirc B Drain Line		ISI-74210-1A Tee-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101419 W-11 Recirc B Drain Line		ISI-74210-1A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101489 W-28 Head Vent		ISI-782A Valve-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101490 W-29 Head Vent		ISI-782A Pipe-to-Valve	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A R1.20-7 1	101530 W-8 MS Condensate Lkof	M1_I4-P2_RF23 / PSI / PT / / PEI- 02.01.01	ISI-786A Valve-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101531 W-9 MS Condensate Lkof	M1_I4-P2_RF23 / PSI / PT / / PEI- 02.01.01	ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - c - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	101532 W-10 MS Condensate Lkof		ISI-786A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101722 W-34 LS U&D CRD Scram Header A		ISI-93268-1A Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101731 W-9 LS U&D CRD Scram Header A		ISI-93268-1A Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101732 W-10 LS U&D CRD Scram Header A		ISI-93268-1A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101733 W-11 CRD Scram Header A		ISI-93268-1A Flange-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101734 W-12 CRD Scram Header A		ISI-93268-1A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101735 W-13 CRD Scram Header A		ISI-93268-1A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101736		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-14		Pipe-to-Pipe	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101737		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-15		Pipe-to-Reducer	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101738		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-16 LS D		Reducer-to-Tee	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101739		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-17 LS U&D		Tee-to-Pipe	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101740		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-18 LS U&D		Pipe-to-Tee	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101746		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-24 LS D		Reducer-to-Reducer	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101747		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-25 LS U&D		Reducer-to-Tee	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101748		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-26 LS U&D		Tee-to-Elbow	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101749		ISI-93268-1A	ISI	-	-	-	-	-
R1.20-7	W-27 LS U&D		Elbow-to-Pipe	AUG	-	-	-	-	-
2	CRD Scram Header A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	101750 W-28 LS U&D CRD Scram Header A		ISI-93268-1A Pipe-to-Elbow (45°)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101751 W-29 LS U&D CRD Scram Header A		ISI-93268-1A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101752 W-30 LS U&D CRD Scram Header A		ISI-93268-1A Pipe-to-Elbow (45°)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101753 W-31 LS U&D CRD Scram Header A		ISI-93268-1A Elbow-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101754 W-32 LS U&D CRD Scram Header A		ISI-93268-1A Pipe-to-Elbow	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101755 W-33 LS U&D CRD Scram Header A		ISI-93268-1A Elbow-to-Reduce	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101756 W-35 LS U&D CRD Scram Header A		ISI-93268-1A Pipe-to-Cap	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101824 W-9 LS U&D CRD Scram Header B		ISI-93268-3A Reducer-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	101825 W-10 LS U&D CRD Scram Header B		ISI-93268-3A Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3			
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011			
R-A	101826		ISI-93268-3A	ISI	-	-	-	-	-	-	-
R1.20-7	W-11		Flange-to-Pipe	AUG	-	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101827		ISI-93268-3A	ISI	-	-	-	-	-	-	-
R1.20-7	W-12		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101828		ISI-93268-3A	ISI	-	-	-	-	-	-	-
R1.20-7	W-13		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101829		ISI-93268-3A	ISI	-	-	-	-	-	-	-
R1.20-7	W-14		Pipe-to-Pipe	AUG	-	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101830		ISI-93268-3A	ISI	-	-	-	-	-	-	-
R1.20-7	W-15		Pipe-to-Reducer	AUG	-	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101831		ISI-93268-3A	ISI	-	-	-	-	-	-	-
R1.20-7	W-16 LS D		Reducer-to-Tee	AUG	-	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101832		ISI-93268-3A	ISI	-	-	-	-	-	-	-
R1.20-7	W-17 LS U&D		Tee-to-Pipe	AUG	-	-	-	-	-	-	-
2	CRD Scram Header B			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101919		ISI-97003-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-17		Valve-to-Elbow	AUG	-	-	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-
R-A	101920		ISI-97003-B	ISI	-	-	-	-	-	-	-
R1.20-7	W-18		Elbow-to-Pipe	AUG	-	-	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-	-	-
				PRE	-	-	-	-	-	-	-

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				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A	101921		ISI-97003-B	ISI	-	-	-	-	-
R1.20-7	W-19		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101922		ISI-97003-B	ISI	-	-	-	-	-
R1.20-7	W-20		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101923		ISI-97003-B	ISI	-	-	-	-	-
R1.20-7	W-21		Pipe-to-Elbow	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101924		ISI-97003-B	ISI	-	-	-	-	-
R1.20-7	W-22		Elbow-to-Pipe	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	101925		ISI-97003-B	ISI	-	-	-	-	-
R1.20-7	W-23		Pipe-to-Pipe	AUG	-	-	-	-	-
1	RHR Suction A			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	102755		ISI-13142-26-B	ISI	-	-	-	-	-
R1.20-7	W-11		Elbow-to-Pipe	AUG	-	-	-	-	-
2	Core Spray B			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106001		ISI-13142-29-A	ISI	-	-	-	-	-
R1.20-7	W-1		PENETRATION X-24 TO PIPE	AUG	-	-	-	-	-
2	RBCCW			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106002		ISI-13142-29-A	ISI	-	-	-	-	-
R1.20-7	W-2		PIPE TO VALVE (MO-1426)	AUG	-	-	-	-	-
2	RBCCW			OWN	-	-	-	-	-
				PRE	-	-	-	-	-
R-A	106003		ISI-13142-29-A	ISI	-	-	-	-	-
R1.20-7	W-3		VALVE (MO-1426) TO PIPE	AUG	-	-	-	-	-
2	RBCCW			OWN	-	-	-	-	-
				PRE	-	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	106004		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-7		Pipe-to-Elbow (45°)	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106005		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-4		Pipe-to-Elbow	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106006		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-5		Elbow-to-Elbow	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106007		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-6		Elbow-to-Pipe	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106008		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-8		Elbow (45°)-to Pipe	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106009		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-9		Pipe-to-Valve(MO-4230)	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106010		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-10		Valve (MO-4230)-to Pipe	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106011		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-11		Pipe-to-Elbow	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	106012		ISI-13142-29-A	ISI	-	-	-	-
R1.20-7	W-12		Elbow-to-Elbow	AUG	-	-	-	-
2	RBCCW			OWN	-	-	-	-
				PRE	-	-	-	-

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3	
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011	
R-A R1.20-7 2	106013 W-13 RBCCW		ISI-13142-29-A Elbow-to-Valve (RBCC-15)	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	106014 W-14 RBCCW		ISI-13142-29-A Valve (RBCC-15)-to Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	106015 W-15 RBCCW		ISI-13142-29-A Pipe-to-Penetration X-2'	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	106064 W-8A PCAC DIV 2	M1_I4-P1_RF22 / PSI / MT / / PEI- 02.02.01 M1_I4-P1_RF22 / PSI / UT / / PEI- 02.03.01	ISI-94699-A PIPE TO CAP	ISI AUG OWN PRE	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	106103 W-5A CGCS INLET DIV 1 & 2		ISI-94879-A Pipe-to-Cap	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	106805 W-3A CORE SPRAY B		ISI-13142-26-B Pipe-to-Tee	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	107018 W-3A RHR A	M1_I4-P1_RF22 / PSI / MT / / PEI- 02.02.01 M1_I4-P1_RF22 / PSI / UT / / PEI- 02.03.01	ISI-13142-37-D Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - c - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 2	107019 W-6A RHR A		ISI-13142-37-D Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
R-A R1.20-7 1	107182 W-5A RCIC Steam		ISI-13142-43-A Pipe-to-Pipe	ISI AUG OWN PRE	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

Category, Item No., Class	Summary No./CompID/System	Scope / Method / Procedure	Dwg/ISO No. Comp. Desc. Code Case	Period 1		Period 2		Period 3
				RF21_2003	RF22_2005	RF23_2007	RF24_2009	RF25_2011
R-A	107185		ISI-786A	ISI	-	-	-	-
R1.20-7	W-1A		Pipe-to-Valve MS-160	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107186		ISI-786A	ISI	-	-	-	-
R1.20-7	W-1B		Valve MS-160-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107187		ISI-786A	ISI	-	-	-	-
R1.20-7	W-5A		Tee-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107188		ISI-786A	ISI	-	-	-	-
R1.20-7	W-44D		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107189		ISI-786A	ISI	-	-	-	-
R1.20-7	W-44C		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107190		ISI-786A	ISI	-	-	-	-
R1.20-7	W-44B		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107191		ISI-786A	ISI	-	-	-	-
R1.20-7	W-44A		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107192		ISI-786A	ISI	-	-	-	-
R1.20-7	W-52A		Pipe-to-Elbow	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-
R-A	107193		ISI-786A	ISI	-	-	-	-
R1.20-7	W-52B		Elbow-to-Pipe	AUG	-	-	-	-
1	MS Condensate Lkof			OWN	-	-	-	-
				PRE	-	-	-	-

