Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

CNL-13-149

December 12, 2013

10 CFR 50.4
10 CFR 50.12
10 CFR 50.55(a)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Units 1 and 2
NRC Docket Nos. 50-390 and 50-391

Subject: **WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - UPDATED INSERVICE TEST (IST) PROGRAM (UNIT 1) AND IST/PRESERVICE TEST (PST) PROGRAM (UNIT 2)**

References:

1. Supplemental Safety Evaluation Report (SSER) 22, Appendix HH, Item No. 13, dated February 2011
2. TVA letter to NRC, "Watts Bar Nuclear Plant (WBN) Unit 2 – Preservice Test Program Plan," dated March 21, 2011
3. TVA letter to NRC, "Watts Bar Nuclear Plant (WBN) Unit 2 - American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Transition - Revised Commitment," dated September 1, 2011
4. TVA letter to NRC, "Watts Bar Nuclear Plant (WBN) Unit 2 – Preservice Inspection Program Plan and Request for Relief No. WBN-2/PDI-4," dated October 30, 2008

The purpose of this letter is to provide the Nuclear Regulatory Commission (NRC) with the Tennessee Valley Authority's (TVA) Technical Instruction (TI), 0-TI-100-006, "Inservice Testing Program" for the Watts Bar Nuclear Plant (WBN) Units 1 and 2,

A047
NRR

including the associated Exemption Request and Relief Requests (10 CFR 50.55a(a)(3) and 10 CFR 50.55a(f)(5)(iii)). The TI addresses both the updated Unit 1 and initial Unit 2 Inservice Test (IST) Programs, and the Unit 2 Preservice Test (PST) Program. By letter dated October 30, 2008, TVA had previously submitted the Unit 2 Preservice Inspection (PSI) Program Plan (Reference 4).

For Unit 1, Enclosure 1 provides WBN's updated IST Program for the Unit 1 Third 10-Year Interval for pumps, valves, dynamic restraints (snubbers), and pressure-relief devices. Enclosure 2 provides one Exemption Request to allow: (1) alignment of the 120 month interval dates for the Unit 1 IST Program to be concurrent with Unit 2 IST Program, and (2) Unit 1 and Unit 2 to utilize the latest edition and addenda of the Code currently referenced by 10 CFR 50.55a(b), which is the American Society of Mechanical Engineers (ASME) Code for the Operation and Maintenance of Nuclear Power Plants (ASME OM Code) 2004 Edition through 2006 Addenda. Since the alignment of the interval dates will be effective once Unit 2 commercial operation milestone occurs, TVA will track and document the exact date of commercial operation. Within three months of Unit 2 commercial operation, TVA will provide NRC this exact date of when the combined intervals became effective.

For Unit 2, Enclosure 1 discusses WBN's Preservice Test Program and Inservice Test Program for pumps, valves, dynamic restraints (snubbers), and pressure-relief devices.

The following table summarizes the transitional relationship between the Unit 2 Preservice Test Program and the Unit 2 Inservice Test Program due to their direct association with Unit 2 project milestones, subsequent program applicability, affected components, and relevant ASME Code (specific Code, Edition, and Addenda).

Watts Bar Nuclear Plant Unit 2 - Preservice & Inservice Test Program Summary			
Program	**Applicability**	**Components**	**ASME Code & Addenda**
Preservice Test Program (PST)	WBN Construction - through Receipt of Operating License and Commercial Operation	Pumps, Valves & Pressure-Relief Devices	OM 2001 Edition through 2003 Addenda, **or** OM 2004 Edition through 2006 Addenda
Inservice Test Program (IST)	WBN Operation - After Receipt of Operating License and Commercial Operation	Pumps, Valves, Dynamic Restraints (Snubbers) & Pressure-Relief Devices	OM 2004 Edition through 2006 Addenda

The previously submitted Unit 2,"Preservice Test (PST) Plan" (Reference 2) is superseded in its entirety by Enclosure 1. Due to the state of construction for Unit 2, no

testing has been performed utilizing the previous Unit 2 PST. The incorporation of the 2004 Edition through the 2006 Addenda of the ASME OM Code in 10 CFR 50.55a(b)(3), effective July 21, 2011, made it advantageous to combine the PST and IST Program Plans into a common document. Enclosure 1 provides this document.

Pursuant to 10 CFR 50.55a(a)(3) and 10 CFR 50.55a(f)(5)(iii), this letter also provides four IST Program relief requests that require NRC approval before they can be implemented. The four requests are: (1) IST-RR-1 - Pump Vibration Reference Values and Acceptance Criteria, (2) IST-RR-2 - ERCW Screen Wash Pump Test Method, (3) IST-RR-3 - Reactor Head Vent Valve Stroke Time Testing, and (4) IST-RR-4 - Unit 2 Pressurizer Safety Valve Test before Electric Generation. These relief requests are similar to requests previously approved by the NRC. Each of these requests is discussed in detail in Enclosure 3, with references to precedent provided.

The submittal of the WBN IST Program document, including the WBN2 PST Program (Enclosure 1), the exemption request (Enclosure 2), and the relief requests (Enclosure 3), described above, will also satisfy SSER 22, Appendix HH, Open Item No. 13 (Reference 1), and the commitment previously stated in Reference 3.

There are two regulatory commitments contained in this letter. Enclosure 4 provides the list of commitments for this letter.

If you have any questions, please contact Gordon Arent at (423) 365-2004.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 12th day of December, 2013.

Respectfully,

J. W. Shea
Vice President, Nuclear Licensing

Enclosures:

1. Technical Instruction 0-TI-100-006, WBN "Inservice Testing Program"
2. Exemption Request
3. Relief Requests
4. List of Commitments

cc: See page 4

cc (Enclosures):

U. S. Nuclear Regulatory Commission
Region II
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, Georgia 30303-1257

NRC Resident Inspector Unit 1
Watts Bar Nuclear Plant
1260 Nuclear Plant Road
Spring City, Tennessee 37381

NRC Resident Inspector Unit 2
Watts Bar Nuclear Plant
1260 Nuclear Plant Road
Spring City, Tennessee 37381

ENCLOSURE 1
Tennessee Valley Authority
Watts Bar Nuclear Plant, Units 1 and 2
Docket Nos. 50-390, -391

WBN Technical Instruction, 0-TI-100-006, "Inservice Testing Program"

Watts Bar Nuclear Plant

Unit 0

Technical Instruction

0-TI-100.006

Inservice Testing Program

Revision 0000

Quality Related

Level of Use: Information Use
Not applicable to Unit 1 components until Unit 2 declares Commercial Operation

Effective Date: 12-10-2013

Responsible Organization: PGM, Engineering Programs Group

Prepared By: Charlie Driskell

Approved By: Keith Dietrich

Current Revision Description

Type of Change: Intent

Tracking Number: 001

PCRs: None

PERs: None

Pages: ALL

Table Contents

Section	Description	Page
1.	INTRODUCTION	4
1.1	Purpose	4
1.2	Scope	4
1.3	Applicability	4
1.4	Owner Information and Interval Dates	5
1.5	Regulatory Requirements and WBN Compliance	6
2.	REFERENCES	8
3.	PROGRAM DEVELOPMENT	10
3.1	Development of Program Scope	10
3.2	Applicable Drawings and System Descriptions	11
3.3	Development of Component Test Requirements	14
3.4	Description of Appendix A, Pump Test Plan	15
3.5	Description of Appendix B, Valve Test Plan	18
3.6	Description of Appendix G, Snubber Test Plan	25
4.	STRUCTURE OF PRESERVICE/INSERVICE TESTING PROGRAM REQUIREMENTS	26
4.1	Upper Tier Requirement for IST Program Scope and Content	27
4.2	Administration and Implementation of the IST Program	28
Appendix A, Pump Test Plan		30
Appendix B, Valve Test Plan		45
Appendix C, Exemption from 10 CFR 50.55a(f)(4)(ii)		208
Appendix D, Pump Relief Requests		212
Appendix E, Valve Relief Requests		219
Appendix F, Deferred Test Justifications		227
Appendix G, Snubber Test Plan		264

1. INTRODUCTION

1.1 Purpose

This procedure represents the Watts Bar Nuclear Plant (WBN) Inservice Testing (IST) Program developed to satisfy the requirements stipulated in the Code of Federal Regulations, Title 10, Part 50.55a (10CFR50.55a), paragraphs (f) and (g) and Technical Specification 5.7.2.11.

This procedure also defines the scope and test requirements for testing required to be performed during the Unit 2 (U2) Preservice Testing (PST) period. U2 pumps, valves, and pressure relief devices not currently in scope of the Unit 1 (U1) IST Program may be either American Society of Mechanical Engineers (ASME) Operations and Maintenance (OM) Code, 2001 Edition through 2003 Addenda, or OM Code, 2004 Edition through 2006 Addenda. U2 Snubbers are in scope of the WBN U2 Preservice Inspection (PSI) Program and not in scope of this procedure during the U2 PST period.

1.2 Scope

The IST Program establishes the testing and examination requirement to assess operational readiness of certain ASME Code Class 1, 2, and 3 components important to nuclear safety. These requirements apply to:

A. Pumps and valves required to perform a specific function in shutting down the reactor to safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident;

B. Pressure relief devices that protect systems or portions of systems that perform one or more of these three functions;

C. Dynamic restraints (snubbers) used in systems that perform one or more of these three functions, or to ensure the integrity of the reactor coolant pressure boundary.

Both WBN units are designed as Hot Shutdown (Mode 3) for the safe shutdown condition.

1.3 Applicability

This procedure is not applicable for U1 components until U2 declares commercial operation. Appendix C, Exemption from 10CFR50.55a(f)(4)(ii), provides additional information. U1 components will be covered by TI-100.006 until U2 commercial operation.

1.4 Owner Information and Interval Dates

Pertinent Owner information and dates are provided in the table below.

Owner	Tennessee Valley Authority	
Address of Corporate Office	Chattanooga Office Complex 1101 Market St. Chattanooga, TN 37402-2801	
Name and Address of Power Plant	Watt Bar Nuclear Plant P.O. Box 2000 Spring City, TN 37381-2000	
Applicable Nuclear Power Units	**WBN Unit 1**	**WBN Unit 2**
Construction Permit Date	January 23, 1973	January 23, 1973
Commercial Operation Date	May 27, 1996	TBD
First 10 year IST Interval	May 27, 1996 to May 26, 2007	TBD to TBD plus 10 years
Second 10 year IST Interval	May 27, 2007 to TBD[1]	-
Third 10 year IST Interval	TBD[1] to TBD[1] plus 10 years	-

1. The Second 10 Year IST Interval for U1 is being adjusted to coincide with the start of the First 10 Year IST for U2 (date of initial commercial operation). See Appendix C.

1.5 Regulatory Requirements and WBN Compliance

1.5.1 Code of Record

IST Period (Unit 1 and Unit 2)

Licensees of pressurized water reactors are required by 10CFR50.55a(f) and (g) to establish an IST Program for their initial 120 month (10 year) interval based on the requirements of the latest edition and addenda of the ASME OM Code incorporated by reference in paragraph 10CFR50.55a(b) 12 months before issuance of an operating license. At the end of this initial interval, and each succeeding interval, they must revise their IST Program to comply with the requirements of the latest edition and addenda of the ASME OM Code incorporated by reference in paragraph 10CFR50.55a(b) 12 months before the start of the 120 month interval, subject to the conditions listed 10CFR50.55a(b).

A request has been submitted to the NRC for exemption from the requirements of 10CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to allow concurrent interval with Unit 2. This exemption request specifies the code of record for the concurrent IST interval to be the ASME OM Code, 2004 Edition through 2006 Addenda. The WBN IST Program presented in this procedure complies with the requirements of this code of record.

Preservice Testing (PST) Period (Unit 2 Components Only)

10CFR50.55a does not specifically address requirements for PST of pumps, valves, and pressure relief devices. ASME OM Code, ISTA-3200(f)(1) requires that PST shall comply with the edition and addenda that has been adopted by the regulatory authority 36 months prior to the docket date of the unit's construction permit, or subsequent editions and addenda that have been adopted by the regulatory authority. Specific portions of such subsequent editions and addenda may be used, provided all related requirements are met.

Therefore, the code of record for the PST period of pumps, valves, and pressure relief devices not currently in scope of the U1 IST Program may be either OM Code, 2001 Edition through 2003 Addenda, or OM Code, 2004 Edition through 2006 Addenda. Procedure NETP-116, Inservice Testing Program Code and Administrative Requirements, provides a comparison of the difference between these code editions/addenda.

10CFR50.55a provides an option to perform snubber testing in accordance with ASME OM Code (IST) or ASME Boiler and Pressure Vessel Code, Section XI (ISI). The Unit 2 snubbers are included in scope of ASME Section XI for the Preservice Inspection (PSI) period activities.

1.5.2 Conditions Applicable to Code of Record

The applicable conditions of 10CFR50.55a, paragraph (b)(3) are provided below with an explanation of WBN's method of addressing each condition.

A. (b)(3)(i) Quality Assurance

The quality assurance program implemented by WBN is the TVA Nuclear Quality Assurance Program Plan (TVA-NQA-PLN89-A). This program is in accordance with 10CFR50, Appendix B. WBN has elected not to use ASME NQA-1, "Quality Assurance Requirements for Nuclear Facilities," 1979 Addenda.

B. (b)(3)(ii) Motor Operated Valves Testing

Procedure NETP-115, MOV Program, describes the program used at WBN to ensure that motor operated valves continue to be capable of performing their design basis safety functions.

C. (b)(3)(v) Subsection ISTD

The conditions of paragraph (b)(3) and its subparagraphs (b)(3)(v)(A) and (b)(3)(v)(B) for snubbers are incorporated into the WBN preservice and inservice programs for snubbers contained in WBN-2 PSI (U2 preservice inspection) and TI-203 (U1 and U2 inservice testing).

1.5.3 Code Cases

In accordance with 10CFR50.55a, paragraph (b)(6), code cases referenced in Regulatory Guide (RG) 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," may be used without prior NRC approval subject to the requirements of (b)(6)(i) through (b)(6)(iii). However, at this time, TVA has not elected to adopt any of the code cases approved for use in RG 1.192 for WBN 1 and 2.

1.5.4 Requests for Relief

In accordance with 10CFR50.55a, paragraphs (a)(3)(i), (a)(3)(ii), and (f)(5)(iv), licensees may submit a request for relief from code requirements. WBN has submitted four relief requests to the NRC for review and approval. The drafts of these are contained in Appendix D, Pump Relief Requests, and Appendix E, Valve Relief Requests. Currently, these relief requests are not approved and will not be implemented at WBN until they are approved by the NRC.

1.5.5 Clarification of Test Methods

Clarification of test methods is provided in procedure 0-TI-100.011 (later), Inservice Testing Program Basis Document, to document WBN's position or approach in areas where the Code of Record allows the Owner to specify requirements, methods, acceptance criteria, or when clarification of WBN's compliance with the code requirements is justified.

1.5.6 NUREG-1482

The NRC published NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants," to provide guidance and recommendations for developing and implementing IST Programs. Guidance provided was used in the development of the WBN IST Program where applicable.

2. REFERENCES

A. Code of Federal Regulations, Title 10, Part 50.55a

B. ASME OM Code, Code for Operation and Maintenance of Nuclear Power Plants, 2004 Edition through 2006 Addenda

C. NUREG-1482, Revision 2, Guidelines for Inservice Testing at Nuclear Power Plants

D. Regulatory Guide 1.192, Operation and Maintenance Code Case Applicability, ASME OM Code

E. Regulatory Guide 1.193, ASME Code Cases Not Approved For Use

F. ASME OM Code Interpretation 98-8

G. ASME OM Code Interpretation 01-1

H. TVA-NQA-PLN89-A, TVA Nuclear Quality Assurance Program Plan

I. NPG-SPP-09.1, ASME Code and Augmented Programs

J. NETP-111, Snubber Program

K. NETP-115, MOV Program

L. NETP-116, Inservice Testing Program Requirements

M. NETP-116.1, Inservice Testing Program Evaluations and Reference Values

N. NETP-116.2, Inservice Testing Program Trending Requirements

O. NETP-116.3, Inservice Testing Program Preconditioning Guidelines

P. NETP-116.4, Inservice Testing of Pressure Relief Devices

Q. NETP-116.5, IST Program Check Valve Condition Monitoring Requirements

2. **REFERENCES** (Continued)

R. NETP-116.6, IST Program Snubber Test Requirements (later)

S. WBN Technical Specifications Unit 1 and Unit 2 (U2 later)

T. WBN Final Safety Analysis Report, Section 3.9.6

U. TI-100.006, Inservice Testing Program

V. 1-TRI-0-10.2, ASME Section XI ISI/NDE Program

W. WBN-2 PSI, Preservice Inspection Program Plan

X. 2-TRI-0-10.1, ASME Section XI ISI/NDE Program (later)

Y. TI-360.01, WBN Containment Leak Rate Programs

Z. 2-TI-360.01, WBN Containment Leak Rate Programs

AA. 0-TI-100.011, Inservice Testing Program Bases Document (later)

AB. TI-100.008, Inservice and Augmented Inservice testing and System Pressure Test Program Implementation Matrix

AC. 2-TI-100.008, Unit 2 Inservice and Augmented Inservice testing and System Pressure Test Program Implementation Matrix

AD. TI-100.013, Check Valve Condition Monitoring Program

AE. 0-TI-100.007, Augmented Inservice Testing Program (later)

AF. 1-SI-0-902, Inservice Testing of Safety and Relief Valves

AG. 2-SI-0-902, Unit 2 Inservice Testing of Safety and Relief Valves

AH. 1-SI-0-911, Periodic Replacement of Thermal Relief Valves

AI. 2-SI-0-911, Unit 2 Periodic Replacement of Thermal Relief Valves (later)

AJ. TI-203, Snubber Program

2. REFERENCES (Continued)

AK. 47B21-1 & -1A, Mechanical Piping Systems Classification

AL. Response to NRC RAI regarding the PSI Program Plan dated October 13, 2010 (RIMS # T02101013001)

AM. NUREG-0847 Supplement 23, Safety Evaluation Report Related to the Operation of Watts Bar Nuclear Plant, Unit 2

3. PROGRAM DEVELOPMENT

3.1 Development of Program Scope

The methodology used to develop the scope for the WBN IST Program is described below.

A. TVA upper tier procedures NPG-SPP-09.1 and NETP-116.series (or Code of Record if NETP-116.series not available) were used in development of the WBN IST Program.

B. In accordance with 10CFR50.55a, paragraph (f), the consideration for scope of the IST Program was limited to Code Class 1, 2, and 3 components. There are no Code Class MC pumps, valves, or pressure relief devices at WBN.

C. The WBN drawings listed in Section 3.2 were used to identify the Code Class 1, 2, and 3 components.

D. The Final Safety Analysis Report, Technical Specifications and Bases (Unit 1 and 2), and all System Description Documents (SDDs) were reviewed to determine the nuclear safety related functions credited at WBN.

E. The function(s) of each component within the Code Class 1, 2, and 3 boundaries shown on the system drawings were reviewed. Based on this review, each component was determined to be "in scope" or "exempt from scope" of the Code of Record (ASME OM Code, 2004 Edition through 2006 Addenda). The component functions and scope determination are documented in 0-TI-100.011 (in development), Inservice Testing Program Bases Document.

F. Pumps, valves, pressure relief devices, and snubbers in scope of the IST Program are shown in Appendix A, Pump Test Plan; Appendix B, Valve Test Plan; and Appendix G, Snubber Test Plan. An explanation of the abbreviations used in these appendices is provided in Section 3.4, Section 3.5, and Section 3.6.

3.2 Applicable Drawings and System Descriptions

The table below provides a list of the systems in scope of the PST/IST Program along with the applicable drawings and SDDs used in development of the program scope.

System No	System Name	Applicable System Description Document	Applicable Drawing
01	Main Steam System	N3-1-4002	1-47W801-1 1-47W803-2 2-47W801-1 2-47W803-2
03A	Main Feedwater System	N3-3A-4002	1-47W803-1 2-47W803-1
03B	Auxiliary Feedwater System	N3-3B-4002	1-47W803-2 1-47W803-3 2-47W803-2 2-47W803-3
15	Steam Generator Blowdown System	N3-15-4002	1-47W801-2 2-47W801-2
26	High Pressure Fire Protection System	N3-26-4002	1-47W850-9 2-47W850-9
30	Reactor Building Ventilation System	N3-30RB-4002	1-47W866-1 2-47W866-1
31	Control Building HVAC System Reactor Building HVAC System Auxiliary Building HVAC System	N3-30CB-4002 N3-30RB-4002 N3-30AB-4002	1-47W865-3 1-47W865-5 2-47W865-5 1-47W865-7 1-47W865-8
32	Compressed Air System	N3-32-4002	1-47W848-1 2-47W848-1
33	Compressed Air System	N3-32-4002	1-47W846-2 2-47W846-2
43	Sampling and Water Quality System	N3-43-4001	1-47W625-1 1-47W625-2 1-47W625-7 1-47W625-11 1-47W625-15 2-47W625-1 2-47W625-2 2-47W625-7 2-47W625-11 2-47W625-15

3.2 Applicable Drawings and System Descriptions (Continued)

System No	System Name	Applicable System Description Document	Applicable Drawing
52	Loose Parts Monitoring System	N/A	47W331-3
59	Demineralized Water System	N/A	1-47W856-1 2-47W856-1
61	Ice Condenser System	N3-61-4001	1-47W814-2 2-47W814-2
62	Chemical and Volume Control System	N3-62-4001	1-47W809-1 1-47W809-2 1-47W809-3 1-47W809-5 2-47W809-1 2-47W809-2 2-47W809-3 2-47W809-5
63	Safety Injection System	N3-63-4001	1-47W811-1 1-47W830-6 2-47W811-1 2-47W830-6
67	Essential Raw Cooling Water System	N3-67-4002	1-47W845-1 1-47W845-2 1-47W845-3 1-47W845-4 1-47W845-5 1-47W845-7 2-47W845-2 2-47W845-3 2-47W845-7

3.2 Applicable Drawings and System Descriptions (Continued)

System No	System Name	Applicable System Description Document	Applicable Drawing
68	Reactor Coolant System	N3-68-4001	1-47W625-8 1-47W813-1 1-47W830-6 2-47W625-8 2-47W813-1 2-47W830-6
70	Component Cooling System	N3-70-4002	1-47W859-1 1-47W859-2 1-47W859-3 1-47W859-4 2-47W859-1 2-47W859-3 2-47W859-4
72	Containment Spray System	N3-72-4001	1-47W812-1 2-47W812-1
74	Residual Heat Removal System	N3-74-4001	1-47W810-1 2-47W810-1
77	Gaseous Waste Disposal System Liquid Waste Disposal System	N3-77A-4001 N3-77C-4001	1-47W830-1 1-47W851-1 2-47W830-1 2-47W851-1
78	Spent Fuel Pool Cooling and Cleaning System	N3-78-4001	1-47W855-1 2-47W855-1
81	Primary Makeup Water System	N3-81-4001	1-47W819-1 2-47W819-1
84	Flood Mode Boration Makeup System	N3-84-4001	1-47W809-7 2-47W809-7
90	Radiation Monitoring System	N/A	1-47W610-90-3 2-47W610-90-3

3.3 Development of Component Test Requirements

The methodology used to determine test requirements for components in scope of the WBN IST Program is described below.

A. Each component in scope of the program was categorized in accordance with OM Code, ISTB-1300 and ISTC-1300 (NETP-116).

B. The test requirements for each pump were determined in accordance with OM Code, Table ISTB-3000-1, ISTB-3100 (NETP-116), ISTB-3200 (NETP-116), and ISTB-3400 (NETP-116) as applicable for the pump group.

C. The test requirements for each valve and pressure relief device were determined in accordance with OM Code, Table ISTC-3500-1, ISTC-3100 (NETP-116), ISTC-3200 (NETP-116), and ISTC 3510 (NETP-116).

D. In cases where it is not practicable to perform valve testing on a quarterly frequency, an alternative test frequency is selected in accordance with the OM Code for deferring valve test frequency.

E. In cases where it is not practicable to perform testing in accordance with the OM Code, a request for relief from the code requirements is submitted to NRC for approval. A copy of the relief requests is provided in Appendix D, Pump Relief Requests, and Appendix E, Valve Relief Requests.

F. The specific inservice test requirements (test type and frequency) for pumps, valves, pressure relief devices, and snubbers in scope of the IST Program are shown in Appendix A, Pump Test Plan; Appendix B, Valve Test Plan; and Appendix G, Snubber Test Plan. An explanation of the abbreviations used in these appendices is provided in Section 3.4, Section 3.5, and Section 3.6.

   Specific information regarding test frequency deferrals are provided in Appendix F, Deferred Test Justifications. The Notes column of Appendix A, Pump Test Plan; and Appendix B, Valve Test Plan, provides reference to the applicable relief request or deferred test justification.

G. The preservice test requirements for U2 valves and pressure relief devices are the first performance of the inservice tests listed in Appendix B. The preservice test requirement for U2 pumps is not the same as the inservice test requirements listed in Appendix A. The preservice test establishes a five point pump curve and initial reference values as described in NETP-116. The preservice pump test is not listed in Appendix A because it is a one time only test for each pump.

3.4 Description of Appendix A, Pump Test Plan

Appendix A, Pump Test Plan, provides a complete list of all pumps in scope of the IST Program along with pertinent information such as the associated test requirements and test frequency.

A description of each column heading in Appendix A, Pump Test Plan, along with the meaning of abbreviations used therein is provided below:

A. Pump ID

The pump identification is a shortened version of the TVA UNID as shown in Maximo. Specifically, the pump identification is the TVA UNID with the plant designator (WBN) and leading zeros removed. Maximo is TVA's official master equipment list.

B. Function

Function description of the component as shown in Maximo.

C. Drawing / Coord

The applicable drawing and drawing coordinate where the pump is shown.

D. Group

Pump group as defined in OM Code, Subsection ISTB.

Group	
Abbreviation	**Description**
A	Pumps that are operated continuously or routinely during normal operation, cold shutdown, or refueling operations.
B	Pumps in standby systems that are not operated routinely except for testing.

3.4 Description of Appendix A, Pump Test Plan (Continued)

E. Class

Identifies the Code Class classification of the pump as shown on the applicable system flow drawings.

Class	
Abbreviation	**Description**
1	Code Class 1
2	Code Class 2
3	Code Class 3

F. Type

Description
Centrifugal Horizontal - pump and driver are on a horizontal plane (i.e. C-H)
Centrifugal Vertical - pump and driver are on a vertical plane (i.e. C-V)
Vertical Line Shaft pump - a vertically suspended pump where the pump driver and pump element are connected by a line shaft within an enclosed column (i.e. VLS)

G. Fixed or Var

Fixed or Var	
Abbreviation	**Description**
Fixed	Pump speed is fixed
Var	Pump speed is variable

H. Actual Speed

Actual Speed	
Abbreviation	**Description**
GE600	Pump speed is greater than or equal to 600 rpm
LT600	Pump speed is less than 600 rpm

3.4 Description of Appendix A, Pump Test Plan (Continued)

I. Test Req

Identifies specific pump test parameters required to be tested.

Test Req	
Abbreviation	**Description**
dP	Pump differential pressure
Q	Pump flow
S	Pump speed
V	Pump vibration. The actual number of vibration points varies from pump to pump depending on the pump design configuration. The actual pump vibration points and locations are identified in the procedures which test the pumps.

J. Freq

Identifies the test frequency of the associated pump test.

Freq	
Abbreviation	**Description**
2Y	2 Year - this frequency is used for the comprehensive pump test
Q	Quarterly - this frequency is used for the Group A or Group B pump test

K. Procedure

Identifies the procedure(s) used to perform the associated pump test. The procedures are currently listed in TI-100.008 (U1) and 2-TI-100.008 (U2) and will be migrated to this procedure over time. The listings are for information only and are subject to change.

L. Notes

Identifies additional pertinent information as applicable. C* designation in the Notes column indicates the pump is Vendor Supplied Safety Related Equipment or included in a limited QA Program that requires testing in accordance with IST. See 47B21-1, 47B21-1A, and applicable System Description for details.

3.5 Description of Appendix B, Valve Test Plan

Appendix B, Valve Test Plan, provides a complete list of all valves in scope of the IST Program along with pertinent information such as the associated test requirements and test frequency.

A description of each column in Appendix B, Valve Test Plan, along with the meaning of abbreviations used therein is provided below:

A. Valve ID

The valve identification is a shortened version of the TVA UNID as shown in Maximo. Specifically, the valve identification is the TVA UNID with the plant designator (WBN) and leading zeros removed. Maximo is TVA's official master equipment list.

B. Function

Function description of the component as shown in Maximo.

C. Drawing / Coord

The applicable drawing and drawing coordinate where the valve is shown.

3.5 Description of Appendix B, Valve Test Plan (Continued)

D. Cat

Valve category as defined in OM Code, Subsection ISTC

Cat	
Abbreviation	**Description**
A	Valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their required function(s), as specified in ISTA-1100.
A/C	Valves which share the characteristics of both Category A and Category C valves.
B	Valves for which seat leakage in the closed position is inconsequential for fulfillment of the required function(s), as specified in ISTA-1100.
C	Valves that are self-actuating in response to some system characteristic, such as pressure (relief valves) or flow direction (check valves) for fulfillment of the required function(s), as specified in ISTA- 1100.

E. Act / Pass

Designates whether the valve performs an active or passive safety function.

Act / Pass	
Abbreviation	**Description**
ACT	Valves that are required to change obturator position to accomplish a specific function in shutting down a reactor to the safe shutdown condition, maintaining the safe shutdown condition, or mitigating the consequences of an accident.
PASS	Valves that maintain obturator position and are not required to change obturator position to accomplish the required function(s) in shutting down a reactor to the safe shutdown condition, maintaining the safe shutdown condition, or mitigating the consequences of an accident.

3.5 Description of Appendix B, Valve Test Plan (Continued)

F. Class

Identifies the Code Class classification of the valve as shown on the applicable ASME Section XI Code Class Boundary Drawing (later).

Class	
Abbreviation	**Description**
1	Code Class 1
2	Code Class 2
3	Code Class 3

G. Size

Nominal valve size in inches.

H. Type

Type	
Abbreviation	**Description**
ANG	Angle valve
BA	Ball valve
BF	Butterfly valve
CK	Check valve
GA	Gate valve
GL	Globe valve
PLG	Plug valve
RV	Relief valve
TRV	Thermal relief valve

3.5 Description of Appendix B, Valve Test Plan (Continued)

I. Act

Act	
Abbreviation	**Description**
AO	Air operator
HO	Hydraulic actuator
M	Manual actuator
MO	Motor operator
SA	Self actuated valve
SO	Solenoid actuator

J. Position - Norm

Position(s) of the valve when performing its normal operating function.

Norm	
Abbreviation	**Description**
C	Closed
LC	Locked closed
O	Open
O/C	Open / Closed
TH	Throttled

K. Position - Safe

Position(s) of the valve when performing its safety related function.

Safe	
Abbreviation	**Description**
C	Closed
O	Open
O/C	Open / Closed

L. Position - Fail

Fail	
Abbreviation	**Description**
O	Open
C	Closed
FAI	Fail as is
N/A	No fail position (valve does not have motive power to fail)

3.5 Description of Appendix B, Valve Test Plan (Continued)

M. Test Req

Identifies specific valve tests required to be performed.

Test Req	
Abbreviation	**Description**
BDC	Bi-Direction Close test. A close exercise test method for check valves that do not perform a safety function in the closed position.
BDO	Bi-Direction Open test. The open exercise test method for check valves that do not perform a safety function in the open position. This test only requires the valve to be exercised to the partially open position.
CM	Condition Monitoring test. This test type is shown for those check valves that are tested in accordance with the Check Valve Condition Monitoring Program as described and controlled in TI-100.013.
CVC	Check Valve Close exercise test. The close exercise test method for check valves that perform a safety function in the closed position. This test method verifies the obturator travels to the seat.
CVO	Check Valve Open exercise test. The open exercise test method for check valves that perform a safety function in the open position. This test method verifies the obturator travels to the full open position (e.g. disc on backstop) or position required to fulfill its safety function (e.g. passes maximum accident flow rate).
ET	Exercise Test. Test method where a valve is full stroke exercised open and closed but stroke timing is not performed.
FSC	Fail Safe Close test. Test method for valves that have an actuator that causes the valve to fail in the closed position. This test method verifies the valve travels to the closed position upon loss of valve actuating power.
FSO	Fail Safe Open test. Test method for valves that have an actuator that causes the valve to fail in the open position. This test method verifies the valve travels to the open position upon loss of valve actuating power.
LTJ	Seat leakage test in accordance with 10CFR50, App. J. This test type is shown for containment isolation valves that are leak tested in accordance with the requirements of WBN's 10CFR50, Appendix J, Containment Leak Rate Program (TI-360.01 for U1 and 2-TI-360.01 for U2). There are no specific IST related requirements for this test type. It is provided for reference purposes only.
LTP	Seat leakage test for reasons other than 10CFR50, App. J. Test method for those valves that have a specific leakage rate based on requirements other than 10CFR50, App. J. This test method verifies the leakage rate of the valves is within Owner specified limits.

3.5 Description of Appendix B, Valve Test Plan (Continued)

M. Test Req (Continued)

Test Req	
Abbreviation	**Description**
MS	Manual Stroke test. Test method for manual valves. This test full stroke exercises the valve using the manual actuator.
NTR	No Test Required. This test designator is used for those valves in which no test is required. Typically, this test designator is applicable to Category B Passive valves which are not equipped with remote position indication.
RPI	Remote Position Indication test. Test method for valves that are equipped with remote position indication. This test verifies the indicating lights accurately reflect actual valve position. In most cases, this test is performed by local observation of valve travel as compared to indication lights. Other methods include verification of a change in flow, pressure, temperature, etc. relative to valve obturator position as compared to indicating lights.
RRA	Relief Request Activities. Special activities (e.g., maintenance activities) to be performed for compliance with an approved relief request.
RV	Relief Valve test. This test method verifies relief valves lift at their specified setpoint (within Owner specified criteria) and verifies other parameters as described and controlled in the Relief Valve Program (1/2-SI-0-902 and 1/2-SI-0-911).
STC	Stroke Time Close test. Test method for power operated valves which perform a safety function in the closed position. This test performs a full stroke exercise from open to closed and measures the stroke time closed.
STO	Stroke Time Open test. Test method for power operated valves which perform a safety function in the open position. This test performs a full stroke exercise from closed to open and measures the stroke time open.

3.5 Description of Appendix B, Valve Test Plan (Continued)

N. Freq

Identifies the test frequency of the associated valve test.

Freq	
Abbreviation	**Description**
2Y	2 Year
10Y	10 Years
AppJ	Frequency determined and controlled by the 10CFR50, Appendix J, Containment Leak Rate Program (TI-360.01 for U1 and 2-TI-360.01 for U2).
CM	Frequency determined and controlled by the Check Valve Condition Monitoring Program (TI-100.013).
CSD	Cold Shutdown
NTR	Frequency assigned to the NTR test type in which no testing is required.
Q	Quarterly
RO	Refueling Outage
RV	Frequency determined and controlled by the Relief Valve Program (1/2-SI-0-902 and 1/2-SI-0-911).

O. Procedures

Identifies the procedure(s) used to perform the associated pump test. The procedures are currently listed in TI-100.008 (U1) and 2-TI-100.008 (U2) and will be migrated to this procedure over time. The listings are for information only and are subject to change.

P. Notes

Identifies pertinent information such as reference to the Deferred Test Justification (Appendix F) associated with specific test. C* designation in the Notes column indicates the valve is Vendor Supplied Safety Related Equipment or included in a limited QA Program that requires testing in accordance with IST. See 47B21-1, 47B21-1A, and applicable System Description for details.

3.6 Description of Appendix G, Snubber Test Plan

Appendix G, Snubber Test Plan, provides a complete list of all snubbers in scope of the IST Program along with pertinent information such as the snubber identification, manufacturer, model, and size. Specific snubber test requirements are not listed in Appendix G because the requirements are identical for each component. The U2 snubber list is preliminary until U2 construction is completed.

A description of each column heading in Appendix G, Snubber Test Plan, along with the meaning of abbreviations used therein is provided below:

A. Snubber ID

The snubber identification is a shortened version of the TVA UNID as shown in Maximo. Specifically, the snubber identification is the TVA UNID with the plant designator (WBN) and leading zeros removed. Maximo is TVA's official master equipment list.

B. Support ID

Identification of the associated support / hanger. This information is provided to assist in location of the snubber and provide a link to the support portion which is in scope of the ISI Program.

C. Type

Description
Mechanical
Hydraulic

D. Mfg

Manufacturer of the snubber

E. Model

Manufacturer's model number of the snubber

F. Size

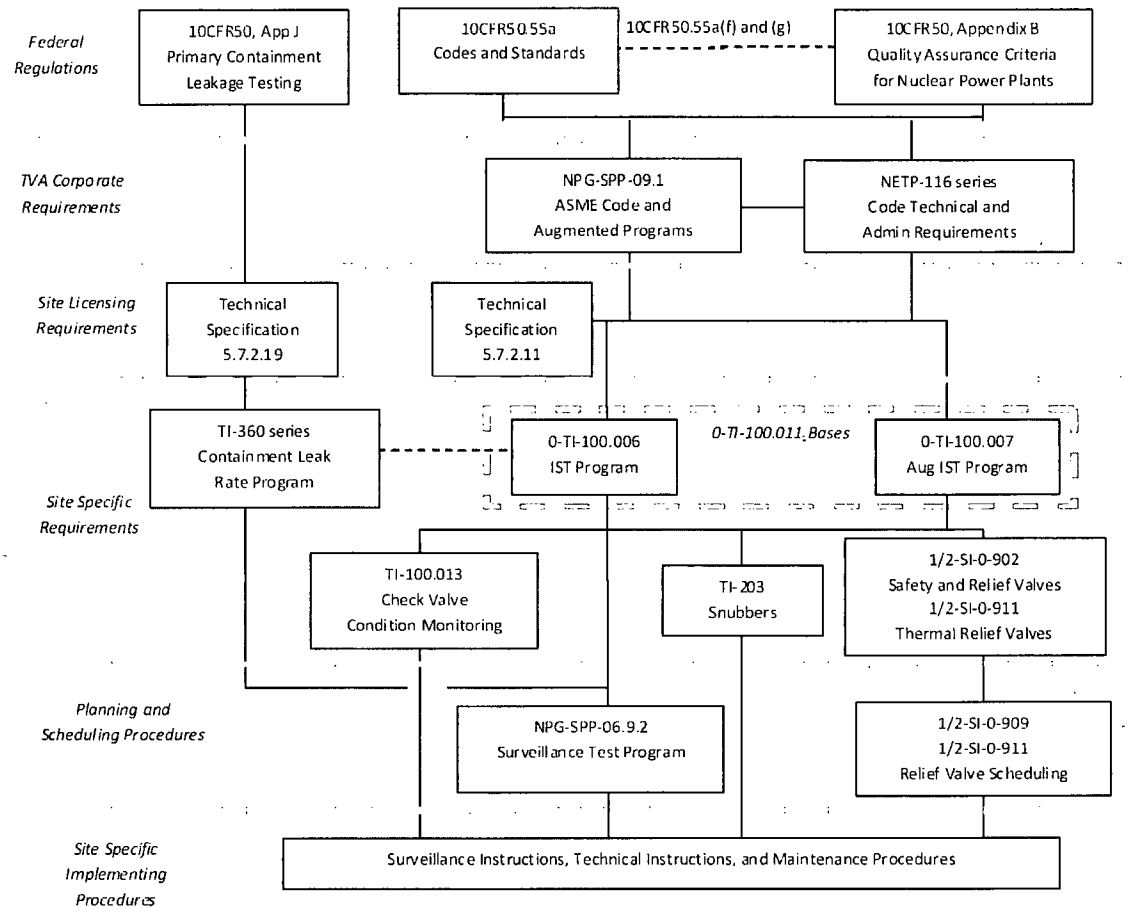
Size of the snubber

G. Rated Load (kips)

Rated load of the snubber in kips (1 kip = 1000 lbs).

4. STRUCTURE OF PRESERVICE/INSERVICE TESTING PROGRAM REQUIREMENTS

The diagram below provides a graphic representation of the hierarchy and structure of various regulations and requirements related to the WBN PST/IST Program. The relationships depicted in this diagram are described in the following subsections.



4.1 Upper Tier Requirements for IST Program Scope and Content

10CFR50.55a requires each licensee of a pressurized water-cooled nuclear power plant to periodically update their IST Program to ensure pumps, valves, pressure relief devices, and snubbers which are classified as Code Class 1, 2, and 3 meet the test requirements of the ASME OM Code edition and addenda incorporated by reference. Section 1.5 of this procedure provides the necessary specific information. It is important to note that 10CFR50.55a restricts the scope of IST Program to included only those Class 1, 2, and 3 components in scope of the ASME OM Code.

TVA corporate fleet-wide procedure NPG-SPP-09.1 provides the TVA process for compliance with 10CFR50.55a.

The following TVA corporate fleet-wide procedures provide the TVA procedure equivalent of the OM Code applicable to the WBN IST Program. Content of the IST Program (e.g., test type, test frequency, pump and valve test plan tables, test deferral justifications, etc.) was developed in accordance with these procedures.

Procedure	Description
NETP-116	Procedure equivalent of OM Code, Subsections: ISTA - General Requirements ISTB - Pumps ISTC - Valves
NETP-116.1	This procedure addresses specific requirements in NEPT-116 (OM Code Subsections ISTB and ISTC) related to reference values and acceptance criteria. It provides the technical and administrative process for performing component evaluations and establishing new reference values and associated acceptance criteria.
NETP-116.2	This procedure addresses specific requirements in NEPT-116 (OM Code Subsections ISTB and ISTC) related to component trending. It provides the requirements for periodic component performance trending.
NETP-116.3	Provides requirements for evaluation of potential preconditioning activities affecting IST required tests.
NETP-116.4	Procedure equivalent of OM Code, Appendix I - Pressure Relief Devices. This procedure also provides requirements for administration of the IST Pressure Relief Device Program as discussed in Section 4.2.1.
NETP-116.5	Procedure equivalent of OM Code, Appendix II - Check Valve Condition Monitoring Program. This procedure also provides requirements for administration of the IST Check Valve Condition Monitoring Program as discussed in Section 4.2.2.

These procedures should be used in lieu of direct reference to OM Code where possible because they represent TVA's official position for OM Code meaning and implementation requirements. These procedures have been developed to ensure consistent interpretation and implementation of the OM Code requirements at all TVA nuclear plants.

4.2 Administration and Implementation of the IST Program

TVA fleet-wide procedures NETP-116 through NETP-116.5 provide specific processes for administration of the IST Program. This includes day-to-day activities such as:

A. Evaluation of components which have undergone maintenance and development of new reference values and acceptance criteria (NETP-116.1).

A. Performing periodic trending of component performance (NETP-116.2).

B. Performing periodic review of online and outage schedules for activities which could lead to unacceptable preconditioning (NETP-116.3)

Implementation of the WBN IST Program is accomplished by performance of site specific test procedures developed to satisfy the specific component tests identified in Appendix A, B, and G of this procedure. These implementing procedures are also listed in the appendices where possible. Scheduling of the implementing test procedures is controlled by procedure NPG-SPP-06.9.2. Exceptions to this implementation method are described below.

The WBN IST Program is supplemented by three sub-programs: a) IST Pressure Relief Device Program; b) Check Valve Condition Monitoring Program, and c) Snubber Program. This approach was taken because these components in these sub-programs have unique test types and test frequencies based on groups of similar components (e.g., design type, service conditions, performance history, etc) rather than an individual component's categorization. Accordingly, Appendix B, Valve Test Plan of this procedure identifies the test type and test frequency for valves included in the sub-programs in general terms such as CM for reference to the Check Valve Condition Monitoring Program and RV for reference to the IST Pressure Relief Device Program. Additional information regarding each of these sub-programs is provided in Sections 4.2.1 and 4.2.2. Appendix G, Snubber Test Plan, provides the scope of snubbers in the plan and the associated test requirements are described in Section 4.2.3.

4.2.1 IST Pressure Relief Device Program

Technical and administrative requirements for the IST Pressure Relief Device Program are delineated in NETP-116.4.

The IST Pressure Relief Device Program is described in procedures 1-SI-0-902 and 2-SI-0-902 for safety and relief valves; and 1-SI-0-911 and 2-SI-0-911 (later) for thermal relief valves. These procedures provide a list of the valve groups, valves in each group, and the test frequency for each valve and valve group.

4.2.2 Check Valve Condition Monitoring Program

Technical and administrative requirements for the Check Valve Condition Monitoring Program are delineated in NETP-116.5.

The Check Valve Condition Monitoring Program is described in procedure TI-100.013. This procedure provides a list of the valve groups, valves in each group, condition monitoring activities (e.g., tests, examinations) and frequency for each valve group, and reference to the evaluation prepared to substantiate the condition monitoring activities (Condition Monitoring Plan). As described in TI-100.013 reviews of check valve testing activities associated with condition monitoring should be scheduled and performed.

Should a required change to check valve condition monitoring activities conflict with plant Technical Specifications (TS) a TS amendment must be approved in accordance with 10CFR50.55a(f)(5)(ii) prior to implementation.

4.2.3 Snubber Program

Technical and administrative requirements for the Snubber Program will be delineated in NETP-116.6 which is currently under development. This procedure will incorporate the requirements of OM Code, Subsection ISTD.

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
0-PMP-31-36/1-A	SHUTDOWN BOARD ROOM CW PUMP A-A	1-47W865-8	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		C*
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-31-49/1-B	SHUTDOWN BOARD ROOM CW PUMP B-B	1-47W865-8	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		C*
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-31-80/1-A	MAIN CONTROL ROOM CW PUMP A-A	1-47W865-3	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		C*
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
0-PMP-31-96/1-B	MAIN CONTROL ROOM CW PUMP B-B	1-47W865-3	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		C*
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-31-128/1-A	ELECTRICAL BOARD ROOM CW PUMP A-A	1-47W865-7	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		C*
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-31-129/1-B	ELECTRICAL BOARD ROOM CW PUMP B-B	1-47W865-7	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		C*
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
0-PMP-67-28-A	ESSENTIAL RAW COOLING WATER PUMP A-A	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-67-32-A	ESSENTIAL RAW COOLING WATER PUMP B-A	1-47W845-1	A	3	Vertical Line Shaft.	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-67-36-A	ESSENTIAL RAW COOLING WATER PUMP C-A	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
0-PMP-67-40-A	ESSENTIAL RAW COOLING WATER PUMP D-A	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-67-47-B	ESSENTIAL RAW COOLING WATER PUMP E-B	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-67-51-B	ESSENTIAL RAW COOLING WATER PUMP F-B	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
0-PMP-67-55-B	ESSENTIAL RAW COOLING WATER PUMP G-B	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-67-59-B	ESSENTIAL RAW COOLING WATER PUMP H-B	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
0-PMP-70-51-S	CCS PUMP C-S	1-47W859-1	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
1-PMP-3-1A-S	TD AUX FEEDWATER PUMP 1A-S	1-47W803-2	B	3	Centrifugal Horizontal	Var	GE600	dP	2Y		
								N	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								N	Q		
								Q	Q		
1-PMP-3-118-A	AUX FEEDWATER PMP 1A-A	1-47W803-2	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
1-PMP-3-128-B	AUX FEEDWATER PMP 1B-B	1-47W803-2	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
1-PMP-62-104-B	CENTRIFUGAL CHARGING PUMP 1B-B	1-47W809-1	A	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
1-PMP-62-108-A	CENTRIFUGAL CHARGING PUMP 1A-A	1-47W809-1	A	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
1-PMP-62-230-A	BORIC ACID TRANSFER PUMP 1A-A	1-47W809-5	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
1-PMP-62-232-B	BORIC ACID TRANSFER PUMP 1B-B	1-47W809-5	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
1-PMP-63-10-A	SAFETY INJECTION PUMP 1A-A	1-47W811-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		
1-PMP-63-15-B	SAFETY INJECTION PUMP 1B-B	1-47W811-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		
1-PMP-67-431-A	ERCW SCREEN WASH PUMP 1A-A	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		C*
								Q	2Y		IST-RR-2
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		IST-RR-2
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
1-PMP-67-440-B	ERCW SCREEN WASH PUMP 1B-B	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		C*
								Q	2Y		IST-RR-2
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		IST-RR-2
								V	Q		IST-RR-1
1-PMP-70-38-B	CCS PUMP 1B-B	1-47W859-1	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
1-PMP-70-46-A	CCS PUMP 1A-A	1-47W859-1	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
1-PMP-72-10-B	CONTAINMENT SPRAY PUMP 1B-B	1-47W812-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		

Appendix A - Pump Test Plan

Page 10 of 15

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
1-PMP-72-27-A	CONTAINMENT SPRAY PUMP 1A -A	1-47W812-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		
1-PMP-74-10-A	RHR PUMP 1A-A	1-47W810-1	A	2	Centrifugal Vertical	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
1-PMP-74-20-B	RHR PUMP 1B-B	1-47W810-1	A	2	Centrifugal Vertical	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
2-PMP-3-2A-S	TD AUX FEEDWATER PUMP 2A-S	2-47W803-2	B	3	Centrifugal Horizontal	Var	GE600	dP	2Y		
								N	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								N	Q		
								Q	Q		
2-PMP-3-118-A	AUX FEEDWATER PMP 2A-A	2-47W803-2	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
2-PMP-3-128-B	AUX FEEDWATER PMP 2B-B	2-47W803-2	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
2-PMP-62-104-B	CENTRIFUGAL CHARGING PUMP 2B-B	2-47W809-1	A	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
2-PMP-62-108-A	CENTRIFUGAL CHARGING PUMP 2A-A	2-47W809-1	A	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
2-PMP-62-230-A	BORIC ACID TRANSFER PUMP 2A-A	1-47W809-5	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
2-PMP-62-232-B	BORIC ACID TRANSFER PUMP 2B-B	1-47W809-5	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
2-PMP-63-10-A	SAFETY INJECTION PUMP 2A-A	2-47W811-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		
2-PMP-63-15-B	SAFETY INJECTION PUMP 2B-B	2-47W811-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		
2-PMP-67-437-A	ERCW SCREEN WASH PUMP 2A-A	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		C*
								Q	2Y		IST-RR-2
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		IST-RR-2
								V	Q		IST-RR-1

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
2-PMP-67-447-B	ERCW SCREEN WASH PUMP 2B-B	1-47W845-1	A	3	Vertical Line Shaft	Fixed	GE600	dP	2Y		C*
								Q	2Y		IST-RR-2
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		IST-RR-2
								V	Q		IST-RR-1
2-PMP-70-33-B	CCS PUMP 2B-B	1-47W859-1	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
2-PMP-70-59-A	CCS PUMP 2A-A	1-47W859-1	A	3	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
2-PMP-72-10-B	CONTAINMENT SPRAY PUMP 2B-B	2-47W812-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		

Appendix A - Pump Test Plan

PUMP ID	FUNCTION	DRAWING/COOR	GROUP	CLASS	TYPE	FIXED OR VAR.	ACTUAL SPEED	TEST REQ	FREQ	PROCEDURE	NOTES
2-PMP-72-27-A	CONTAINMENT SPRAY PUMP 2A -A	2-47W812-1	B	2	Centrifugal Horizontal	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								Q	Q		
2-PMP-74-10-A	RHR PUMP 2A-A	2-47W810-1	A	2	Centrifugal Vertical	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1
2-PMP-74-20-B	RHR PUMP 2B-B	2-47W810-1	A	2	Centrifugal Vertical	Fixed	GE600	dP	2Y		
								Q	2Y		
								V	2Y		IST-RR-1
								dP	Q		
								Q	Q		
								V	Q		IST-RR-1

Appendix B - Valve Test Plan

Page 1 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
0-RFV-31-2210	MCR SURGE TANK A-A RELIEF	1-47W865-3 / C-8	C	ACT	3	1	RV	SA	C	O/C	N/A	RV	RV		C*
0-RFV-31-2252	MCR SURGE TANK B-B RELIEF	1-47W865-3 / C-3	C	ACT	3	1	RV	SA	C	O/C	N/A	RV	RV		C*
0-RFV-31-2326	ELEC BD RM SURGE TANK A RELIEF	1-47W865-7 / D-8	C	ACT	3	1	RV	SA	C	O/C	N/A	RV	RV		C*
0-RFV-31-2383	ELEC BD RM SURGE TANK B RELIEF	1-47W865-7 / D-3	C	ACT	3	1	RV	SA	C	O/C	N/A	RV	RV		C*
0-RFV-31-2623	SD BD RM SURGE TANK A-A RELIEF	1-47W865-8 / D-10	C	ACT	3	1	RV	SA	C	O/C	N/A	RV	RV		C*
0-RFV-31-2665	SD BD RM SURGE TANK B-B RELIEF	1-47W865-8 / D-4	C	ACT	3	1	RV	SA	C	O/C	N/A	RV	RV		C*
0-FCV-67-144	CCS HX C OUTLET ERCW FLOW CNTL BYP	1-47W845-2 / C-6	B	ACT	3	16	GL	MO	O	C	FAI	RPI STC	2Y Q		
0-FCV-67-152-B	CCS HX C OUTLET ERCW HDR B FLOW CNTL	1-47W845-2 / C-6	B	ACT	3	24	BF	MO	O/C	O/C	FAI	RPI STC STO	2Y Q Q		
0-FCV-67-205-A	STA AIR COMPR ERCW SUP HDR 1A ISOL	1-47W845-5 / H-2	B	ACT	3	4	BF	MO	O	C	FAI	RPI STC	2Y Q		
0-FCV-67-208-B	STA AIR COMPR ERCW SUP HDR 1B ISOL	1-47W845-5 / H-3	B	ACT	3	4	BF	MO	O	C	FAI	RPI STC	2Y Q		
0-CKV-67-502A-A	ERCW PUMP A-A AIR VENT LINE CHECK	1-47W845-1 / E-8	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-502B-A	ERCW PUMP B-A AIR VENT LINE CHECK	1-47W845-1 / E-6	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-502C-A	ERCW PUMP C-A AIR VENT LINE CHECK	1-47W845-1 / F-6	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		

Appendix B - Valve Test Plan

Page 2 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
0-CKV-67-502D-A	ERCW PUMP D-A AIR VENT LINE CHECK	1-47W845-1 / F-8	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-502E-B	ERCW PUMP E-B AIR VENT LINE CHECK	1-47W845-1 / F-4	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-502F-B	ERCW PUMP F-B AIR VENT LINE CHECK	1-47W845-1 / F-6	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-502G-B	ERCW PUMP G-B AIR VENT LINE CHECK	1-47W845-1 / E-6	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-502H-B	ERCW PUMP H-B AIR VENT LINE CHECK	1-47W845-1 / E-4	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-503A-A	ERCW PUMP A-A DISCH CHECK	1-47W845-1 / E-8	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-503B-A	ERCW PUMP B-A DISCH CHECK	1-47W845-1 / D-7	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-503C-A	ERCW PUMP C-A DISCH CHECK	1-47W845-1 / F-7	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-503D-A	ERCW PUMP D-A DISCH CHECK	1-47W845-1 / F-8	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-503E-B	ERCW PUMP E-B DISCH CHECK	1-47W845-1 / F-4	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-503F-B	ERCW PUMP F-B DISCH CHECK	1-47W845-1 / F-5	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		

Appendix B - Valve Test Plan

Page 3 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
0-CKV-67-503G-B	ERCW PUMP G-B DISCH CHECK	1-47W845-1 / E-5	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-CKV-67-503H-B	ERCW PUMP H-B DISCH CHECK	1-47W845-1 / E-4	C	ACT	3	20	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-RFV-67-550-B	CCS HX C ERCW OUT RELIEF	1-47W845-2 / C-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
0-RFV-67-671-A	AUX CNTL AIR COMPR A ERCW RELIEF	1-47W845-4 / B-10	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
0-RFV-67-672-B	AUX CNTL AIR COMPR B ERCW RELIEF	1-47W845-7 / B-12	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
0-RFV-67-1021A-A	MCR WTR CHLR A-A ERCW RELIEF	1-47W845-2 / A-10	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
0-RFV-67-1021B-B	MCR WTR CHLR B-B ERCW RELIEF	1-47W845-2 / B-9	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
0-RFV-67-1039A-A	ELEC BD RM A/C COND A -A ERCW RELIEF	1-47W845-4 / H-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
0-RFV-67-1039B-B	ELEC BD RM A/C COND B -B ERCW RELIEF	1-47W845-4 / H-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
0-FCV-70-194-B	SFP HEAT EXCHANGER B CCS SUPPLY	1-47W859-1 / B-4	B	ACT	3	20	BF	MO	O	C	FAI	RPI STC	2Y Q		
0-FCV-70-197-A	SFP HEAT EXCHANGER A CCS SUPPLY	1-47W859-1 / B-5	B	ACT	3	20	BF	MO	O	C	FAI	RPI STC	2Y Q		
0-CKV-70-504	CCS PUMP C-S DISCHARGE CHECK	1-47W859-1 / D-7	C	ACT	3	16	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
0-RFV-70-527A	SFP HEAT EXCHANGER A CCS OUT RELIEF	1-47W859-1 / H-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
0-RFV-70-527B	SFP HEAT EXCHANGER B CCS OUT RELIEF	1-47W859-1 / H-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-1-4-T	MAIN STEAM ISOL VALVE LOOP 1	1-47W801-1 / C-3	B	ACT	2	32	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-01
												STC	RO		DTJ-01
1-PCV-1-5-T	MAIN STEAM LOOP 1 PORV	1-47W801-1 / C-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
1-FCV-1-7-B	STEAM GENERATOR 1 BLOWDOWN ISOL	1-47W801-2 / D-4	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-FCV-1-11-T	MAIN STEAM ISOL VALVE LOOP 2	1-47W801-1 / E-3	B	ACT	2	32	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-01
												STC	RO		DTJ-01
1-PCV-1-12-T	MAIN STEAM LOOP 2 PORV	1-47W801-1 / D-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
1-FCV-1-14-A	STEAM GENERATOR 2 BLOWDOWN ISOL	1-47W801-2 / E-4	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-FCV-1-15-A	MAIN STEAM LOOP 1 TD AUX FWP SUP	1-47W803-2 / C-8	B	ACT	2	4	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-1-16-A	MAIN STEAM LOOP 4 TD AUX FWP SUP	1-47W803-2 / A-8	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-1-17-A	MAIN STEAM AUX FWP HDR SUPPLY ISOL	1-47W803-2 / C-7	B	ACT	3	4	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-02
1-FCV-1-18-B	MAIN STEAM AUX FWP HDR SUPPLY ISOL	1-47W803-2 / C-7	B	ACT	3	4	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-02
1-FCV-1-22-T	MAIN STEAM ISOL VLV LOOP 3	1-47W801-1 / F-3	B	ACT	2	32	GL	AO	O	C	C	RPI FSC STC	2Y RO RO		 DTJ-01 DTJ-01
1-PCV-1-23-T	MAIN STEAM LOOP 3 PORV	1-47W801-1 / F-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI FSC STC STO	2Y RO RO RO		
1-FCV-1-25-B	STEAM GENERATOR 3 BLOWDOWN ISOL	1-47W801-2 / G-4	B	ACT	2	4	GL	SO	O	C	C	RPI FSC STC	2Y Q Q		
1-FCV-1-29-T	MAIN STEAM ISOL VALVE LOOP 4	1-47W801-1 / C-3	B	ACT	2	32	GL	AO	O	C	C	RPI FSC STC	2Y RO RO		 DTJ-01 DTJ-01

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-PCV-1-30-T	MAIN STEAM LOOP 4 PORV	1-47W801-1 / A-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
1-FCV-1-32-A	STEAM GENERATOR 4 BLOWDOWN ISOL	1-47W801-2 / B-4	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-FCV-1-51-S	TD AUX FEEDWATER PMP TRIP & THROTTLE VALVE	1-47W803-2 / H-6	B	ACT	3	4	GA	MO	O/C	O/C	FAI	RPI	2Y		C*
												STC	Q		
												STO	Q		
1-FCV-1-147-A	MAIN STEAM ISOL VLV LOOP 1 BYP WARMING VLV	1-47W801-1 / C-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03
1-FCV-1-148-B	MAIN STEAM ISOL VLV LOOP 2 BYP WARMING VLV	1-47W801-1 / E-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-1-149-A	MAIN STEAM ISOL VLV LOOP 3 BYP WARMING VLV	1-47W801-1 / F-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03
1-FCV-1-150-B	MAIN STEAM ISOL VLV LOOP 4 BYP WARMING VLV	1-47W801-1 / A-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03
1-FCV-1-181-A	STEAM GENERATOR 1 BLOWDOWN ISOL	1-47W801-2 / D-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-FCV-1-182-B	STEAM GENERATOR 2 BLOWDOWN ISOL	1-47W801-2 / F-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-FCV-1-183-A	STEAM GENERATOR 3 BLOWDOWN ISOL	1-47W801-2 / H-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-FCV-1-184-B	STEAM GENERATOR 4 BLOWDOWN ISOL	1-47W801-2 / B-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-SFV-1-512	MAIN STEAM LOOP 3 SAFETY VALVE	1-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-513	MAIN STEAM LOOP 3 SAFETY VALVE	1-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

Page 8 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-SFV-1-514	MAIN STEAM LOOP 3 SAFETY VALVE	1-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-515	MAIN STEAM LOOP 3 SAFETY VALVE	1-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-516	MAIN STEAM LOOP 3 SAFETY VALVE	1-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-517	MAIN STEAM LOOP 2 SAFETY VALVE	1-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-518	MAIN STEAM LOOP 2 SAFETY VALVE	1-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-519	MAIN STEAM LOOP 2 SAFETY VALVE	1-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-520	MAIN STEAM LOOP 2 SAFETY VALVE	1-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-521	MAIN STEAM LOOP 2 SAFETY VALVE	1-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-522	MAIN STEAM LOOP 1 SAFETY VALVE	1-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-523	MAIN STEAM LOOP 1 SAFETY VALVE	1-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-524	MAIN STEAM LOOP 1 SAFETY VALVE	1-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-525	MAIN STEAM LOOP 1 SAFETY VALVE	1-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-526	MAIN STEAM LOOP 1 SAFETY VALVE	1-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-527	MAIN STEAM LOOP 4 SAFETY VALVE	1-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-528	MAIN STEAM LOOP 4 SAFETY VALVE	1-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-529	MAIN STEAM LOOP 4 SAFETY VALVE	1-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-530	MAIN STEAM LOOP 4 SAFETY VALVE	1-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-SFV-1-531	MAIN STEAM LOOP 4 SAFETY VALVE	1-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
1-ISV-1-619	MAIN STEAM LOOP 1 PORV ISOLATION	1-47W801-1 / C-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		
1-ISV-1-620	MAIN STEAM LOOP 2 PORV ISOLATION	1-47W801-1 / D-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-ISV-1-621	MAIN STEAM LOOP 3 PORV ISOLATION	1-47W801-1 / F-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		
1-ISV-1-622	MAIN STEAM LOOP 4 PORV ISOLATION	1-47W801-1 / A-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		
1-CKV-1-891-S	MS SUPPLY FW TURB CHECK	1-47W803-2 / C-8	C	ACT	2	4	CK	SA	C	O/C	N/A	CM	CM		
1-CKV-1-892-S	MS SUPPLY FW TURB CHECK	1-47W803-2 / A-8	C	ACT	2	4	CK	SA	C	O/C	N/A	CM	CM		
1-FCV-3-33-A	STEAM GENERATOR 1 MFW ISOL	1-47W803-1 / C-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-35	STEAM GENERATOR 1 MFW REG VALVE	1-47W803-1 / C-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-35A	STEAM GENERATOR 1 MFW BYPASS REG VALVE	1-47W803-1 / C-4	B	ACT	3	6	GL	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-47-B	STEAM GENERATOR 2 MFW ISOL	1-47W803-1 / E-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-48	STEAM GENERATOR 2 MFW REG VALVE	1-47W803-1 / E-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-3-48A	STEAM GENERATOR 2 MFW BYPASS REG VALVE	1-47W803-1 / D-4	B	ACT	3	6	GL	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-87-A	STEAM GENERATOR 3 MFW ISOL	1-47W803-1 / F-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-90	STEAM GENERATOR 3 MFW REG VALVE	1-47W803-1 / F-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-90A	STEAM GENERATOR 3 MFW BYPASS REG VALVE	1-47W803-1 / F-4	B	ACT	3	6	GL	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-100-B	STEAM GENERATOR 4 MFW ISOL	1-47W803-1 / B-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-103	STEAM GENERATOR 4 MFW REG VALVE	1-47W803-1 / B-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-3-103A	STEAM GENERATOR 4 MFW BYPASS REG VALVE	1-47W803-1 / A-4	B	ACT	3	6	GL	AO	O	C	C	RPI FSC STC	2Y RO RO		C* DTJ-06 DTJ-06
1-FCV-3-116A-A	ERCW HEADER A AFW PUMP 1A-A SUCTION	1-47W803-2 / F-5	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-3-116B-A	ERCW HEADER A AFW PUMP 1A-A SUCTION	1-47W803-2 / F-5	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-PCV-3-122	AUX FEEDWATER PMP 1A-A DISCHARGE PRESS CONTROL	1-47W803-2 / F-5	B	ACT	3	4	GL	AO	C	O	C	FSC STO	Q Q		
1-FCV-3-126A-B	ERCW HEADER B AFW PUMP 1B-B SUCTION	1-47W803-2 / F-7	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-3-126B-B	ERCW HEADER B AFW PUMP 1B-B SUCTION	1-47W803-2 / F-7	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-PCV-3-132	AUX FEEDWATER PMP 1B-B DISCHARGE PRESS CONTROL	1-47W803-2 / F-6	B	ACT	3	4	GL	AO	C	O	C	FSC STO	Q Q		
1-FCV-3-136A-A	ERCW HEADER A TD AFW PMP SUCT	1-47W803-2 / H-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-3-136B-A	ERCW HEADER A TD AFW PMP SUCT	1-47W803-2 / H-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI STO	2Y Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-LCV-3-148A-B	SG 3 AUX FEEDWATER 1-LCV-3-148 BYPASS	1-47W803-2 / G-8	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
1-LCV-3-148-B	MD AFW PUMP 1B-B SG 3 LEVEL CONTROL	1-47W803-2 / G-8	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		
1-LCV-3-156-A	MD AFW PUMP 1A-A SG 2 LEVEL CONTROL	1-47W803-2 / E-8	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		
1-LCV-3-156A-A	SG 2 AUX FEEDWATER 1-LCV-3-156 BYPASS	1-47W803-2 / E-8	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
1-LCV-3-164-A	MD AFW PUMP 1A-A SG 1 LEVEL CONTROL	1-47W803-2 / D-8	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-LCV-3-164A-A	SG 1 AUX FEEDWATER 1-LCV-3-164 BYPASS	1-47W803-2 / C-8	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
1-LCV-3-171A-B	SG 4 AUX FEEDWATER 1-LCV-3-171 BYPASS	1-47W803-2 / B-8	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
1-LCV-3-171-B	MD AFW PUMP 1B-B SG 4 LEVEL CONTROL	1-47W803-2 / B-8	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		
1-LCV-3-172-A	TD AFW PUMP SG 3 LEVEL CONTROL	1-47W803-2 / F-8	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
1-LCV-3-173-B	TD AFW PUMP SG 2 LEVEL CONTROL	1-47W803-2 / E-8	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-LCV-3-174-B	TD AFW PUMP SG 1 LEVEL CONTROL	1-47W803-2 / C-8	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
1-LCV-3-175-A	TD AFW PUMP SG 4 LEVEL CONTROL	1-47W803-2 / B-8	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
1-FCV-3-179A-B	ERCW HEADER B TD AFW PMP SUCT	1-47W803-2 / H-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI	2Y		
												STO	Q		
1-FCV-3-179B-B	ERCW HEADER B TD AFW PMP SUCT	1-47W803-2 / H-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI	2Y		
												STO	Q		
1-FCV-3-236	STEAM GENERATOR 1 MFW BYPASS LINE ISOL	1-47W803-1 / C-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-239	STEAM GENERATOR 2 MFW BYPASS LINE ISOL	1-47W803-1 / D-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-3-242	STEAM GENERATOR 3 MFW BYPASS LINE ISOL	1-47W803-1 / E-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-245	STEAM GENERATOR 4 MFW BYPASS LINE ISOL	1-47W803-1 / A-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
1-FCV-3-355	AUX FEEDWATER PMP 1A-A RECIRC FLOW	1-47W803-2 / E-5	B	ACT	3	2	GL	AO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-FCV-3-359	AUX FEEDWATER PMP 1B-B RECIRC FLOW	1-47W803-2 / E-6	B	ACT	3	2	GL	AO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
1-CKV-3-508	STEAM GENERATOR 3 MFW CHECK	1-47W803-1 / F-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05
1-CKV-3-509	STEAM GENERATOR 2 MFW CHECK	1-47W803-1 / E-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05
1-CKV-3-510	STEAM GENERATOR 1 MFW CHECK	1-47W803-1 / C-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05
1-CKV-3-511	STEAM GENERATOR 4 MFW CHECK	1-47W803-1 / B-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-3-638	STEAM GENERATOR 4 MFW BYPASS LINE CHECK	1-47W803-1 / A-3	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-644	STEAM GENERATOR 4 MFW BYPASS LINE CHECK	1-47W803-1 / A-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-645	STEAM GENERATOR 4 MFW BYPASS LINE CHECK	1-47W803-1 / A-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-652	STEAM GENERATOR 1 MFW BYPASS LINE CHECK	1-47W803-1 / C-2	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-655	STEAM GENERATOR 1 MFW BYPASS LINE CHECK	1-47W803-1 / C-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-656	STEAM GENERATOR 1 MFW BYPASS LINE CHECK	1-47W803-1 / C-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-669	STEAM GENERATOR 2 MFW BYPASS LINE CHECK	1-47W803-1 / D-2	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-670	STEAM GENERATOR 2 MFW BYPASS LINE CHECK	1-47W803-1 / D-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-678	STEAM GENERATOR 3 MFW BYPASS LINE CHECK	1-47W803-1 / E-2	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-679	STEAM GENERATOR 3 MFW BYPASS LINE CHECK	1-47W803-1 / F-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
1-CKV-3-805-A	AUX FEEDWATER PMP 1A-A SUCTION CHECK	1-47W803-2 / F-5	C	ACT	3	8	CK	SA	O/C	O/C	N/A	CVC CVO	RO RO		DTJ-07 DTJ-07
1-CKV-3-806-B	AUX FEEDWATER PMP 1B-B SUCTION CHECK	1-47W803-2 / F-6	C	ACT	3	8	CK	SA	O/C	O/C	N/A	CVC CVO	RO RO		DTJ-07 DTJ-07

Appendix B - Valve Test Plan

Page 17 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-3-810-S	TD AUX FEEDWATER PUMP SUCTION CHECK	1-47W803-2 / G-3	C	ACT	3	10	CK	SA	O/C	O/C	N/A	CVC CVO	RO RO		DTJ-07 DTJ-07
1-CKV-3-814-A	AUX FEEDWATER PMP 1A-A RECIRC CHECK	1-47W803-2 / G-5	C	ACT	3	1.5	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
1-CKV-3-815-B	AUX FEEDWATER PMP 1B-B RECIRC CHECK	1-47W803-2 / G-6	C	ACT	3	1.5	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
1-CKV-3-818-S	TD AUX FEEDWATER PUMP RECIRC CHECK	1-47W803-2 / G-6	C	ACT	3	1.5	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
1-CKV-3-830-B	AUX FEEDWATER PMP 1B-B SG 3 SUPPLY CHECK	1-47W803-2 / G-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-831-A	AUX FEEDWATER PMP 1A-A SG 2 SUPPLY CHECK	1-47W803-2 / E-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-832-A	AUX FEEDWATER PMP 1A-A SG 1 SUPPLY CHECK	1-47W803-2 / D-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-833-B	AUX FEEDWATER PMP 1B-B SG 4 SUPPLY CHECK	1-47W803-2 / B-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-861-B	AUX FEEDWATER PMP 1B-B SG 3 SUPPLY CHECK	1-47W803-2 / G-10	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-862-A	AUX FEEDWATER PMP 1A-A SG 2 SUPPLY CHECK	1-47W803-2 / E-10	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-864-S	TD AUX FEEDWATER PUMP DISCHARGE CHECK	1-47W803-2 / H-6	C	ACT	3	6	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-07 DTJ-07

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-3-871-S	TD AUX FEEDWATER PUMP SG 3 SUPPLY CHECK	1-47W803-2 / F-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-872-S	TD AUX FEEDWATER PUMP SG 2 SUPPLY CHECK	1-47W803-2 / E-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-873-S	TD AUX FEEDWATER PUMP SG 1 SUPPLY CHECK	1-47W803-2 / C-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-874-S	TD AUX FEEDWATER PUMP SG 4 SUPPLY CHECK	1-47W803-2 / A-8	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-921-B	AUX FEEDWATER PMP 1B-B SG 3 SUPPLY CHECK	1-47W803-2 / G-10	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-CKV-3-922-A	AUX FEEDWATER PMP 1A-A SG 2 SUPPLY CHECK	1-47W803-2 / F-10	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
1-FCV-26-240-A	REACTOR BLDG STANDPIPE ISOL	1-47W850-9 / B-9	A	ACT	2	4	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-26-243-A	REACTOR COOLANT PUMP SPRINKLER HDR ISOL	1-47W850-9 / B-3	A	ACT	2	4	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-CKV-26-1260	REACTOR BLDG HPFP SUPPLY HDR CHECK	1-47W850-9 / B-9	A/C	ACT	2	4	CK	SA	O/C	C	N/A	LTJ CM	AppJ CM		
1-CKV-26-1296	REACTOR COOLANT PUMP SPRINKLER HDR ISOL CHK	1-47W850-9 / B-3	A/C	ACT	2	4	CK	SA	O/C	C	N/A	LTJ CM	AppJ CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-30-7-A	CNTMT UPPER COMPARTMENT PURGE SUPPLY	1-47W866-1 / C-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-8-B	CNTMT UPPER COMPARTMENT PURGE SUPPLY	1-47W866-1 / C-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-9-B	CNTMT UPPER COMPARTMENT PURGE SUPPLY	1-47W866-1 / C-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-10-A	CNTMT UPPER COMPARTMENT PURGE SUPPLY	1-47W866-1 / C-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-14-A	CNTMT LOWER COMPARTMENT PURGE SUPPLY	1-47W866-1 / E-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-30-15-B	CNTMT LOWER COMPARTMENT PURGE SUPPLY	1-47W866-1 / E-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-16-B	CNTMT LOWER COMPARTMENT PURGE SUPPLY	1-47W866-1 / E-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-17-A	CNTMT LOWER COMPARTMENT PURGE SUPPLY	1-47W866-1 / E-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-19-B	CNTMT INCORE INSTR ROOM PURGE SUPPLY	1-47W866-1 / G-1	A	ACT	2	12	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-20-A	CNTMT INCORE INSTR ROOM PURGE SUPPLY	1-47W866-1 / G-2	A	ACT	2	12	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

Page 21 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-30-37-B	CNTMT LOWER COMPARTMENT PURGE EXH PRESS RELIEF	1-47W866-1 / D-10	A	ACT	2	8	BF	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-30-40-A	CNTMT LOWER COMPARTMENT PURGE EXH PRESS RELIEF	1-47W866-1 / D-9	A	ACT	2	8	BF	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-30-50	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	1-47W866-1 / C-9	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-30-51	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	1-47W866-1 / C-10	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-30-52	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	1-47W866-1 / C-9	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-30-53	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	1-47W866-1 / C-10	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-30-56	CNTMT LOWER COMPARTMENT EXHAUST ISOLATION	1-47W866-1 / E-9	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-30-57	CNTMT LOWER COMPARTMENT EXHAUST ISOLATION	1-47W866-1 / E-10	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

Page 23 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-30-58	CNTMT INSTRUMENT ROOM EXHAUST ISOLATION	1-47W866-1 / G-9	A	ACT	2	12	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-30-59	CNTMT INSTRUMENT ROOM EXHAUST ISOLATION	1-47W866-1 / G-10	A	ACT	2	12	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FSV-30-134-B	CONTAINMENT ANNULUS DIFF PRESSURE ISOLATION	1-47W866-1 / F-9	A	ACT	2	0.5	GA	SO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FSV-30-135-A	CONTAINMENT ANNULUS DIFF PRESSURE ISOLATION	1-47W866-1 / F-10	A	ACT	2	0.5	GA	SO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-31-305-B	INCORE INSTR RM AHU 1A CWR ISOL	1-47W865-5 / B-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-31-306-A	INCORE INSTR RM AHU 1A CWR ISOL	1-47W865-5 / B-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-31-308-A	INCORE INSTR RM AHU 1A CWS ISOL	1-47W865-5 / C-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-31-309-B	INCORE INSTR RM AHU 1A CWS ISOL	1-47W865-5 / C-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-31-326-A	INCORE INSTR RM AHU 1B CWR ISOL	1-47W865-5 / E-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-31-327-B	INCORE INSTR RM AHU 1B CWR ISOL	1-47W865-5 / E-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-31-329-B	INCORE INSTR RM AHU 1B CWS ISOL	1-47W865-5 / F-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-31-330-A	INCORE INSTR RM AHU 1B CWS ISOL	1-47W865-5 / F-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-CKV-31-3378	INCORE INSTR RM AHU 1B CWS LEAK RATE CHECK	1-47W865-5 / F-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-31-3392	INCORE INSTR RM AHU 1B CWR LEAK RATE CHECK	1-47W865-5 / E-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-31-3407	INCORE INSTR RM AHU 1A CWS LEAK RATE CHECK	1-47W865-5 / C-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-31-3421	INCORE INSTR RM AHU 1A CWR LEAK RATE CHECK	1-47W865-5 / B-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-FCV-32-80-A	ESSENT CONTROL AIR TR A CNTMT ISOL	1-47W848-1 / C-9	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ CSD CSD		 DTJ-09 DTJ-09
1-FCV-32-102-B	ESSENT CONTROL AIR TR B CNTMT ISOL	1-47W848-1 / D-9	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ CSD CSD		 DTJ-09 DTJ-09
1-FCV-32-110-A	CONTROL AIR CNTMT ISOL	1-47W848-1 / A-9	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ CSD CSD		 DTJ-09 DTJ-09
1-BYV-32-288	CONTROL AIR 1-FCV-32-110 BYPASS	1-47W848-1 / A-9	A	PASS	2	2	GL	M	C	C	N/A	LTJ	AppJ		
1-CKV-32-293	CONTROL AIR CNTMT CHECK	1-47W848-1 / A-9	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ CSD CSD		 DTJ-09 DTJ-09
1-BYV-32-298-A	ESSENT CONTROL AIR 1-FCV-32-80 BYPASS	1-47W848-1 / C-9	A	PASS	2	2	GL	M	C	C	N/A	LTJ	AppJ		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-32-303-A	ESSENT CNTL AIR CNTMT CHECK	1-47W848-1 / C-9	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-09
												CVC	CSD		DTJ-09
1-BYV-32-308-B	ESSENT CONTROL AIR 1-FCV-32-102 BYPASS	1-47W848-1 / D-9	A	PASS	2	2	GL	M	C	C	N/A	LTJ	AppJ		
1-CKV-32-313-B	ESSENT CNTL AIR CNTMT CHECK	1-47W848-1 / D-9	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-09
												CVC	CSD		DTJ-09
1-ISV-33-713	SERVICE AIR U1 RX BLDG HDR ISOL	1-47W846-2 / F-5	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
1-ISV-33-714	SERVICE AIR U1 RX BLDG HDR ISOL	1-47W846-2 / F-6	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
1-FCV-43-2-B	PRESSURIZER GAS SAMPLE ISOL	1-47W625-1 / D-3	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-43-3-A	PRESSURIZER GAS SAMPLE ISOL	1-47W625-1 / D-5	A	ACT	2	0.375	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-43-11-B	PRESSURIZER LIQUID SAMPLE ISOL	1-47W625-1 / B-2	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-43-12-A	PRESSURIZER LIQUID SAMPLE ISOL	1-47W625-1 / B-4	A	ACT	2	0.375	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-22-B	HOT LEGS 1/3 SAMPLE ISOL	1-47W625-1 / F-5	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-23-A	HOT LEGS 1/3 SAMPLE ISOL	1-47W625-1 / D-5	A	ACT	2	0.375	GL	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-34-B	ACCUM TANK SAMPLE HDR ISOL	1-47W625-2 / B-2	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-35-A	ACCUM TANK SAMPLE HDR ISOL	1-47W625-2 / C-4	A	ACT	2	0.375	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-54D-B	STEAM GEN 1 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / C-7	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-43-55-A	STEAM GEN 1 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / C-6	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
1-FCV-43-56D-B	STEAM GEN 2 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / C-7	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
1-FCV-43-58-A	STEAM GEN 2 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / C-6	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
1-FCV-43-59D-B	STEAM GEN 3 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / D-8	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
1-FCV-43-61-A	STEAM GEN 3 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / D-7	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
1-FCV-43-63D-B	STEAM GEN 4 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / E-9	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
1-FCV-43-64-A	STEAM GEN 4 DRUM/BLDN SAMPLE ISOL	1-47W625-2 / E-8	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-43-75-B	DS EXCESS LTDN HX SAMPLE ISOL	1-47W625-7 / E-7	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-77-A	EXCESS LTDN HX SAMPLE ISOL	1-47W625-7 / E-8	A	ACT	2	0.375	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-201-A	LOCA H2 CNTMT MONITOR INLET ISOL	1-47W625-11 / F-5	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-202-A	LOCA H2 CNTMT MONITOR OUTLET ISOL	1-47W625-11 / F-5	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-207-B	LOCA H2 CNTMT MONITOR INLET ISOL	1-47W625-11 / D-6	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

Page 31 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-43-208-B	LOCA H2 CNTMT MONITOR OUTLET ISOL	1-47W625-11 / C-6	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FSV-43-250-A	PAS HOT LEG 1 SAMPLE ISOL	1-47W625-15 / D-1	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-251-A	PAS HOT LEG 1 SAMPLE ISOL	1-47W625-15 / C-1	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-287-A	PAS CONTAINMENT AIR SUPPLY ISOL	1-47W625-15 / B-8	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-288-A	PAS CONTAINMENT AIR SUPPLY ISOL	1-47W625-15 / B-8	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-307-A	PAS CONTAINMENT AIR RETURN ISOL	1-47W625-15 / B-9	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-309-B	PAS HOT LEG 3 SAMPLE ISOL	1-47W625-15 / D-2	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-310-B	PAS HOT LEG 3 SAMPLE ISOL	1-47W625-15 / C-2	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-318-B	PAS CONTAINMENT AIR SUPPLY ISOL	1-47W625-15 / B-9	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-319-B	PAS CONTAINMENT AIR SUPPLY ISOL	1-47W625-15 / B-9	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FSV-43-325-B	PAS CONTAINMENT AIR RETURN ISOL	1-47W625-15 / B-10	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-341-B	PAS WASTE TO CNTMT SUMP ISOL	1-47W625-15 / H-6	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FSV-43-342-A	PAS WASTE TO CNTMT SUMP ISOL	1-47W625-15 / G-6	A	PASS	2	0.375	GL	SO	C	C	C	RPI LTJ	2Y AppJ		
1-FCV-43-433-A	LOCA H2 CNTMT MONITOR U/S SAMPLE ISOL	1-47W625-11 / F-4	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-434-A	LOCA H2 CNTMT MONITOR D/S SAMPLE ISOL	1-47W625-11 / F-4	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-435-B	LOCA H2 CNTMT MONITOR U/S SAMPLE ISOL	1-47W625-11 / D-5	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-43-436-B	LOCA H2 CNTMT MONITOR D/S SAMPLE ISOL	1-47W625-11 / C-5	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-CKV-43-834	PAS WASTE TO CNTMT SUMP CHECK	1-47W625-15 / H-5	A/C	PASS	2	0.375	CK	SA	C	C	N/A	LTJ	AppJ		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-43-841	PAS WASTE TO CNTMT SUMP CHECK	1-47W625-15 / A-10	A/C	PASS	2	0.375	CK	SA	C	C	N/A	LTJ	AppJ		
1-CKV-43-883	PAS CONTAINMENT AIR RETURN CHECK	1-47W625-15 / G-5	A/C	PASS	2	0.375	CK	SA	C	C	N/A	LTJ	AppJ		
1-CKV-43-884	PAS CONTAINMENT AIR RETURN CHECK	1-47W625-15 / A-9	A/C	PASS	2	0.375	CK	SA	C	C	N/A	LTJ	AppJ		
1-ISV-52-500	PENETRATION 26B ILRT OUTSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-52-501	PENETRATION 26A ILRT OUTSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-52-502	PEN 96A INTERGRATED LE AK RATE TEST OUTSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-52-503	PEN 96B INTERGRATED LE AK RATE TEST OUTSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-52-504	PENETRATION 26B ILRT INSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-52-505	PENETRATION 26A ILRT INSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-52-506	PEN 96A INTERGRATED LE AK RATE TEST INSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-52-507	PEN 96B INTERGRATED LE AK RATE TEST INSIDE	1-47W331-3 / H-2	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
1-ISV-59-522	UNIT 1 RB DI WATER HEADER ISOLATION	1-47W856-1 / F-2	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
1-ISV-59-698	UNIT 1 RB DI WATER HEADER ISOLATION	1-47W856-1 / F-2	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
1-FCV-61-96-A	GLYCOL COOLED FLOOR SUPPLY HEADER ISOL	1-47W814-2 / E-11	A	ACT	2	2	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-61-97-B	GLYCOL COOLED FLOOR SUPPLY HEADER ISOL	1-47W814-2 / E-11	A	ACT	2	2	DIA	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-61-110-A	GLYCOL COOLED FLOOR RETURN HEADER ISOL	1-47W814-2 / G-9	A	ACT	2	2	DIA	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-61-122-B	GLYCOL COOLED FLOOR RETURN HEADER ISOL	1-47W814-2 / G-9	A	ACT	2	2	DIA	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-61-191-A	GLYCOL SUPPLY TO AHUS CONTAINMENT ISOLATION	1-47W814-2 / A-6	A	ACT	2	4	DIA	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-61-192-B	GLYCOL SUPPLY TO AHUS CONTAINMENT ISOLATION	1-47W814-2 / A-7	A	ACT	2	4	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-61-193-A	GLYCOL RETURN AUX BLDG ISOLATION	1-47W814-2 / B-6	A	ACT	2	4	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-61-194-B	GLYCOL RETURN CONTAINMENT ISOLATION	1-47W814-2 / B-7	A	ACT	2	4	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-CKV-61-533	GLYCOL SUPPLY HEADER BYPASS CHECK	1-47W814-2 / B-7	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-61-658	ICE CONDENSER FLOOR DRAIN GATE 1	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-659	ICE CONDENSER FLOOR DRAIN GATE 2	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-660	ICE CONDENSER FLOOR DRAIN GATE 3	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-61-661	ICE CONDENSER FLOOR DRAIN GATE 4	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-662	ICE CONDENSER FLOOR DRAIN GATE 5	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-663	ICE CONDENSER FLOOR DRAIN GATE 6	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-664	ICE CONDENSER FLOOR DRAIN GATE 7	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-665	ICE CONDENSER FLOOR DRAIN GATE 8	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-666	ICE CONDENSER FLOOR DRAIN GATE 9	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-667	ICE CONDENSER FLOOR DRAIN GATE 10	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-668	ICE CONDENSER FLOOR DRAIN GATE 11	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-669	ICE CONDENSER FLOOR DRAIN GATE 12	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-670	ICE CONDENSER FLOOR DRAIN GATE 13	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-671	ICE CONDENSER FLOOR DRAIN GATE 14	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-61-672	ICE CONDENSER FLOOR DRAIN GATE 15	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-673	ICE CONDENSER FLOOR DRAIN GATE 16	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-674	ICE CONDENSER FLOOR DRAIN GATE 17	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-675	ICE CONDENSER FLOOR DRAIN GATE 18	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-676	ICE CONDENSER FLOOR DRAIN GATE 19	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-677	ICE CONDENSER FLOOR DRAIN GATE 20	1-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
1-CKV-61-680	GLYCOL RETURN HEADER BYPASS CHECK	1-47W814-2 / B-7	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-61-692	GLYCOL COOLED FLOOR SUPPLY BYPASS CHECK	1-47W814-2 / F-11	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-61-745	GLYCOL COOLED FLOOR RETURN BYPASS CHECK	1-47W814-2 / G-9	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-FCV-62-61-B	CVCS SEAL WATER RETURN HEADER ISOL	1-47W809-1 / B-7	A	ACT	2	4	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		 DTJ-14

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-62-63-A	CVCS SEAL WATER RETURN HEADER ISOL	1-47W809-1 / B-8	A	ACT	2	4	GA	MO	O	C	FAI	RPI	2Y		
												LTJ	AppJ		
												STC	CSD		DTJ-14
1-FCV-62-69-S	CVCS LETDOWN ISOLATION	1-47W809-1 / A-2	B	ACT	1	3	GL	AO	O/C	C	C	RPI	2Y		
												FSC	CSD		DTJ-15
												STC	CSD		DTJ-15
1-FCV-62-70-S	CVCS LETDOWN ISOLATION	1-47W809-1 / A-2	B	ACT	1	3	GL	AO	O/C	C	C	RPI	2Y		
												FSC	CSD		DTJ-15
												STC	CSD		DTJ-15
1-FCV-62-72-A	CVCS LETDOWN ORIFICE A ISOLATION	1-47W809-1 / A-5	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-62-73-A	CVCS LETDOWN ORIFICE B ISOLATION	1-47W809-1 / A-4	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-62-74-A	CVCS LETDOWN ORIFICE C ISOLATION	1-47W809-1 / A-4	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-62-76-A	CVCS LETDOWN ORIFICE ISOLATION	1-47W809-1 / A-5	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-62-77-B	CVCS LP LETDOWN ISOL	1-47W809-1 / A-7	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	CSD		DTJ-15
												STC	CSD		DTJ-15
1-FCV-62-83	RHR LETDOWN FLOW CNTL	1-47W809-1 / A-8	B	PASS	2	2	GL	AO	C	C	C	RPI	2Y		
1-FCV-62-84-A	PZR AUXILARY SPRAY LINE ISOLATION	1-47W809-1 / B-2	B	ACT	1	3	GL	AO	O/C	O/C	C	RPI	2Y		
												FSC	CSD		DTJ-08
												STC	CSD		DTJ-08
												STO	CSD		DTJ-08
1-FCV-62-90-A	CVCS CHARGING HEADER ISOLATION	1-47W809-1 / D-8	B	ACT	2	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-15
1-FCV-62-91-B	CVCS CHARGING HEADER ISOLATION	1-47W809-1 / D-8	B	ACT	2	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-15
1-LCV-62-132-A	VOLUME CONTROL TANK OUTLET ISOLATION	1-47W809-1 / D-10	B	ACT	2	4	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-16
1-LCV-62-133-B	VOLUME CONTROL TANK OUTLET ISOLATION	1-47W809-1 / D-10	B	ACT	2	4	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-16

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-LCV-62-135-A	RWST CVCS SUPPLY HDR ISOLATION	1-47W809-1 / H-10	B	ACT	2	8	GA	MO	C	O	FAI	RPI STO	2Y CSD		 DTJ-16
1-LCV-62-136-B	RWST CVCS SUPPLY HDR ISOLATION	1-47W809-1 / H-10	B	ACT	2	8	GA	MO	C	O	FAI	RPI STO	2Y CSD		 DTJ-16
1-FCV-62-138-B	EMERGENCY BORATION FLOW CONTROL	1-47W809-2 / A-4	B	ACT	3	3	GL	MO	C	O	FAI	RPI STO	2Y Q		
1-CKV-62-504-S	RWST TO CVCS CHG PUMP SUCTION CHECK	1-47W809-1 / H-10	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-11 DTJ-11
1-RFV-62-505-S	CHARGING PUMP SUCTION HDR RELIEF	1-47W809-1 / F-10	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-62-523-A	CCP 1A-A MINIFLOW CHECK	1-47W809-1 / G-9	A/C	ACT	2	2	CK	SA	C	O/C	N/A	LT CVC CVO	2Y Q Q		
1-CKV-62-525-A	CCP 1A-A DISCHARGE CHECK	1-47W809-1 / G-9	A/C	ACT	2	4	CK	SA	O	O/C	N/A	LT CVC CVO	2Y RO RO		 DTJ-11 DTJ-11
1-CKV-62-530-B	CCP 1B-B MINIFLOW CHECK	1-47W809-1 / F-9	A/C	ACT	2	2	CK	SA	C	O/C	N/A	LT CVC CVO	2Y Q Q		
1-CKV-62-532-B	CCP 1B-B DISCHARGE CHECK	1-47W809-1 / F-9	A/C	ACT	2	4	CK	SA	O	O/C	N/A	LT CVC CVO	2Y RO RO		 DTJ-11 DTJ-11

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-62-560-S	RCP 1 SEAL WATER INJECTION CHK	1-47W809-1 / F-6	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-561-S	RCP 2 SEAL WATER INJECTION CHK	1-47W809-1 / F-6	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-562-S	RCP 3 SEAL WATER INJECTION CHK	1-47W809-1 / H-6	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-563-S	RCP 4 SEAL WATER INJECTION CHK	1-47W809-1 / H-6	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-576-S	RCP 1 SEAL WATER INJECTION CHECK	1-47W809-1 / E-4	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-577-S	RCP 2 SEAL WATER INJECTION CHECK	1-47W809-1 / E-2	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-578-S	RCP 3 SEAL WATER INJECTION CHECK	1-47W809-1 / G-2	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-579-S	RCP 4 SEAL WATER INJECTION CHECK	1-47W809-1 / G-4	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
1-RFV-62-636-S	CVCS SEAL WTR RETURN HEADER RELIEF	1-47W809-1 / B-6	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-62-638-S	CVCS NORM CHARGING CHECK	1-47W809-1 / A-2	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-639-S	CVCS SEAL WTR 1-FCV-62-61 EQL CHECK	1-47W809-1 / C-7	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-62-640-S	CVCS ALT CHARGING CHECK	1-47W809-1 / A-1	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
1-RFV-62-649-S	CVCS SEAL WATER HX RELIEF	1-47W809-1 / C-9	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-62-659-S	CVCS NORM CHARGING CHECK	1-47W809-1 / A-2	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-660-S	CVCS ALT CHARGING CHECK	1-47W809-1 / A-1	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
1-CKV-62-661-S	CVCS CHARGING TO RCS SPRAY CHECK	1-47W809-1 / B-2	C	ACT	1	3	CK	SA	O/C	C	N/A	CM	CM		
1-RFV-62-662-S	CVCS LETDOWN HEADER RELIEF	1-47W809-1 / A-3	A/C	ACT	2	2	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		
1-RFV-62-675-S	CVCS LETDOWN RELIEF	1-47W809-1 / B-10	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-62-930	EMERGENCY BORATION CHECK	1-47W809-2 / B-4	C	ACT	3	3	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-13 DTJ-13
1-RFV-62-955	HOLDUP TANK A PRESS RELIEF	1-47W809-3 / C-11	C	ACT	3	3	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-62-1052-A	BA XFER PUMP 1A-A DISCH CHECK	1-47W809-5 / F-8	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
1-CKV-62-1052-B	BA XFER PUMP 1B-B DISCH CHECK	1-47W809-5 / F-7	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
1-RFV-62-1079	HOLDUP TANK A VACUUM RELIEF	1-47W809-3 / C-12	C	ACT	3	4	RV	SA	C	O/C	N/A	RV	10Y		DTJ-29
1-RFV-62-1221	CCP 1A-A SUCTION RELIEF	1-47W809-1 / G-10	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-62-1222	CCP 1B-B SUCTION RELIEF	1-47W809-1 / E-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-FCV-62-1228-A	CCP SUCTION TO VCT VENT HDR ISOL	1-47W809-1 / C-10	B	ACT	2	1	GL	AO	O	C	C	RPI FSC STC	2Y CSD CSD		 DTJ-16 DTJ-16
1-FCV-62-1229-B	CCP SUCTION TO VCT VENT HDR ISOL	1-47W809-1 / C-10	B	ACT	2	1	GL	AO	O	C	C	RPI FSC STC	2Y CSD CSD		 DTJ-16 DTJ-16
1-FCV-63-1-A	RWST TO RHR SUCTION	1-47W811-1 / E-10	B	ACT	2	14	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-19
1-FCV-63-3-A	SI PUMP MINI FLOW RECIRC HDR TO RWST ISOL	1-47W811-1 / E-8	B	ACT	2	2	GL	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-20

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-63-4-B	SI PUMP 1A-A MINI FLOW RECIRC TO RWST ISOL	1-47W811-1 / E-8	B	ACT	2	2	GL	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-63-5-B	RWST TO SI PUMP SUCTION ISOL	1-47W811-1 / D-10	B	ACT	2	6	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-19
1-FCV-63-6-B	RHR HX A OUTLET TO SI PUMP SUCTION	1-47W811-1 / F-10	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-63-7-A	RHR HX 1A-A OUTLET TO SI PUMP 1A-A SUCT	1-47W811-1 / F-10	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-63-8-A	RHR PMP 1A-A TO CHG PMP & SIP 1A-A SUCT ISOL	1-47W811-1 / H-9	B	ACT	2	8	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-21
1-FCV-63-11-B	RHR HX 1B-B OUTLET TO SIP 1B-B SUCT ISOL	1-47W811-1 / H-9	B	ACT	2	8	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-21
1-FCV-63-22-B	SI PUMPS TO COLD LEG INJECTION	1-47W811-1 / E-6	B	ACT	2	4	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-22
1-FCV-63-23-B	COLD LEG ACCUMULATOR FILL FROM SIP 1A-A ISV	1-47W811-1 / E-7	A	ACT	2	1	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-63-25-B	SIS BORON INJ TANK OUTLET ISOLATION	1-47W811-1 / B-7	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-23
1-FCV-63-26-A	SIS BORON INJ TANK OUTLET ISOLATION	1-47W811-1 / B-7	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-23
1-RFV-63-28	PENET X-30 PRESSURE RELIEF	1-47W811-1 / D-6	A/C	ACT	2	0.75	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		
1-FCV-63-47-A	SAFETY INJ PUMP 1A-A SUCTION ISOLATION	1-47W811-1 / E-10	B	ACT	2	6	GA	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-63-48-B	SAFETY INJ PUMP 1B-B SUCTION ISOLATION	1-47W811-1 / E-10	B	ACT	2	6	GA	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-63-63	SIS COLD LEG ACCUM 4 N2 MAKEUP	1-47W811-1 / A-5	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
1-FCV-63-64-A	SIS ACCUM N2 HDR INLET VLV	1-47W830-6 / B-6	A	ACT	2	1	GA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-63-67-B	SIS COLD LEG ACCUM 4 OUTLET ISOLATION	1-47W811-1 / B-5	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		
1-FCV-63-70	SIS COLD LEG ACCUM 4 MAKEUP	1-47W811-1 / B-6	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-63-71-A	SIS CHECK VLV TEST LINE HOLDUP TANK ISOL	1-47W811-1 / D-6	A	ACT	2	0.75	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-63-72-A	CONTAINMENT SUMP TO RHR PUMP 1A-A ISOL	1-47W811-1 / H-7	B	ACT	2	18	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-24
1-FCV-63-73-B	CONTAINMENT SUMP TO RHR PUMP 1B-B ISOL	1-47W811-1 / H-7	B	ACT	2	18	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-24
1-FCV-63-77	SIS COLD LEG ACCUM 3 MAKEUP	1-47W811-1 / B-4	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
1-FCV-63-80-A	SIS COLD LEG ACCUM 3 OUTLET ISOLATION	1-47W811-1 / B-4	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		
1-FCV-63-84-B	SIS CHECK VLV LEAK TEST HOLDUP TANK ISOL	1-47W811-1 / C-6	A	ACT	2	0.75	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-63-87	SIS COLD LEG ACCUM 3 N2 MAKEUP	1-47W811-1 / A-4	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
1-FCV-63-93-A	RHR TO COLD LEG 2 & 3 INJECTION ISOLATION	1-47W811-1 / G-7	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-25
1-FCV-63-94-B	RHR TO COLD LEG 1 & 4 INJECTION ISOLATION	1-47W811-1 / G-7	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-25
1-FCV-63-95	SIS COLD LEG ACCUM 2 MAKEUP	1-47W811-1 / B-3	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
1-FCV-63-98-B	SIS COLD LEG ACCUM 2 OUTLET ISOLATION	1-47W811-1 / B-3	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		
1-FCV-63-107	SIS COLD LEG ACCUM 2 N2 MAKEUP	1-47W811-1 / A-2	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
1-FCV-63-115	SIS COLD LEG ACCUM 1 MAKEUP	1-47W811-1 / B-2	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
1-FCV-63-118-A	SIS COLD LEG ACCUM 1 OUTLET ISOLATION	1-47W811-1 / B-1	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-63-127	SIS COLD LEG ACCUM 1 N2 MAKEUP	1-47W811-1 / A-1	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
1-FCV-63-152-A	SIP 1A-A COLD LEG INJ FLOW CNTL	1-47W811-1 / F-7	B	ACT	2	4	GA	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-63-153-B	SIP 1B-B COLD LEG INJ FLOW CNTL	1-47W811-1 / E-7	B	ACT	2	4	GA	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-63-156-A	SI PUMP 1A-A HOT LEG 1 & 3 INJECTION	1-47W811-1 / F-6	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-63-157-B	SI PUMP 1B-B HOT LEG 2 & 4 INJECTION	1-47W811-1 / D-6	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-63-172-B	RHR TO HOT LEG 1 & 3 INJECTION ISOLATION	1-47W811-1 / F-6	B	ACT	2	12	GA	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-25
1-FCV-63-175-B	SI PUMP 1B-B MINI FLOW RECIRC TO RWST	1-47W811-1 / E-8	B	ACT	2	2	GL	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-63-177	RHR HX 1A-A OUTLET TO SIP 1A-A SUCT ISOL	1-47W811-1 / F-10	B	PASS	2	4	GA	MO	O	O	FAI	RPI	2Y		
1-FCV-63-185	RHR SUPPLY 1-FCV-74-2 LEAK TEST LINE ISOL	1-47W811-1 / E-6	B	ACT	2	0.75	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-63-502-S	RWST TO RHR SUCTION CHECK	1-47W811-1 / F-10	C	ACT	2	12	CK	SA	C	O	N/A	CVC CVO	RO RO		DTJ-18 DTJ-18
1-CKV-63-510-S	RWST TO SAFETY INJ PUMP SUCTION CHECK	1-47W811-1 / D-10	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-11 DTJ-11
1-RFV-63-511-S	SAFETY INJECTION PUMP 1A-A RELIEF	1-47W811-1 / E-10	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-63-524-A	SAFETY INJ PUMP 1A-A DISCHARGE CHECK	1-47W811-1 / F-8	A/C	ACT	2	4	CK	SA	C	O/C	N/A	LT CVC CVO	2Y RO RO		 DTJ-11 DTJ-11
1-CKV-63-526-B	SAFETY INJ PUMP 1B-B DISCHARGE CHECK	1-47W811-1 / D-8	A/C	ACT	2	4	CK	SA	C	O/C	N/A	LT CVC CVO	2Y RO RO		 DTJ-11 DTJ-11
1-CKV-63-528-A	SI PUMP 1A-A MINI FLOW RECIRC CHECK	1-47W811-1 / F-8	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LT CVC CVO	2Y Q Q		
1-CKV-63-530-B	SI PUMP 1B-B MINI FLOW RECIRC CHECK	1-47W811-1 / D-8	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LT CVC CVO	2Y Q Q		
1-RFV-63-534-A	SI PUMP 1A-A HOT LEG INJ LINE DISCH RELIEF	1-47W811-1 / E-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-63-535-S	SI PUMP COLD LEG INJ LINE DISCH RELIEF	1-47W811-1 / E-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-RFV-63-536-B	SI PUMP 1B-B HOT LEG INJ LINE DISCH RELIEF	1-47W811-1 / D-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-63-543-A	HOT LEG 1 SAFETY INJ CHECK	1-47W811-1 / F-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-545-A	HOT LEG 3 SAFETY INJ CHECK	1-47W811-1 / F-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-547-B	HOT LEG 2 SAFETY INJ CHECK	1-47W811-1 / E-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-549-B	HOT LEG 4 SAFETY INJ CHECK	1-47W811-1 / E-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-551-S	COLD LEG 1 SAFETY INJ CHECK	1-47W811-1 / H-1	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-553-S	COLD LEG 2 SAFETY INJ CHECK	1-47W811-1 / H-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-555-S	COLD LEG 3 SAFETY INJ CHECK	1-47W811-1 / G-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-63-557-S	COLD LEG 4 SAFETY INJ CHECK	1-47W811-1 / G-2	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-558-B	HOT LEG 4 SAFETY INJ CHECK	1-47W811-1 / E-2	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-559-B	HOT LEG 2 SAFETY INJ CHECK	1-47W811-1 / E-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-560-S	COLD LEG 1 INJ HEADER CHECK	1-47W811-1 / F-1	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
1-CKV-63-561-S	COLD LEG 2 INJ HEADER CHECK	1-47W811-1 / D-1	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
1-CKV-63-562-S	COLD LEG 3 INJ HEADER CHECK	1-47W811-1 / E-2	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
1-CKV-63-563-S	COLD LEG 4 INJ HEADER CHECK	1-47W811-1 / F-2	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
1-RFV-63-577-S	SIS BORON INJECTION TNK OUTLET RELIEF	1-47W811-1 / A-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-63-581-S	BORON INJ LINE CHECK	1-47W811-1 / C-6	A/C	ACT	1	3	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-63-586-S	COLD LEG 1 BORON INJ CHECK	1-47W811-1 / E-1	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-587-S	COLD LEG 2 BORON INJ CHECK	1-47W811-1 / D-2	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-588-S	COLD LEG 3 BORON INJ CHECK	1-47W811-1 / E-2	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-CKV-63-589-S	COLD LEG 4 BORON INJ CHECK	1-47W811-1 / F-2	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
1-RFV-63-602-S	SIS COLD LEG ACCUM 1 RELIEF	1-47W811-1 / A-2	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-63-603-S	SIS COLD LEG ACCUM 2 RELIEF	1-47W811-1 / A-3	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-63-604-S	SIS COLD LEG ACCUM 3 RELIEF	1-47W811-1 / A-4	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-63-605-S	SIS COLD LEG ACCUM 4 RELIEF	1-47W811-1 / A-6	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-63-622-S	SIS COLD LEG ACCUM 1 OUTLET CHECK	1-47W811-1 / D-1	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
1-CKV-63-623-S	SIS COLD LEG ACCUM 2 OUTLET CHECK	1-47W811-1 / D-1	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
1-CKV-63-624-S	SIS COLD LEG ACCUM 3 OUTLET CHECK	1-47W811-1 / D-3	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-63-625-S	SIS COLD LEG ACCUM 4 OUTLET CHECK	1-47W811-1 / D-3	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP CM	2Y CM		
1-RFV-63-626-A	RHR TO COLD LEG 2 & 3 INJ LINE RELIEF	1-47W811-1 / G-7	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-63-627-B	RHR TO COLD LEG 1 & 4 INJ LINE RELIEF	1-47W811-1 / F-7	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-63-632-A	COLD LEG 2 RHR INJ LINE CHECK	1-47W811-1 / H-2	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP CVC CVO	2Y RO RO		 DTJ-18 DTJ-18
1-CKV-63-633-B	COLD LEG 1 RHR INJ LINE CHECK	1-47W811-1 / G-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP CVC CVO	2Y RO RO		 DTJ-18 DTJ-18
1-CKV-63-634-A	COLD LEG 3 RHR INJ LINE CHECK	1-47W811-1 / G-3	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP CVC CVO	2Y RO RO		 DTJ-18 DTJ-18
1-CKV-63-635-B	COLD LEG 4 RHR INJ LINE CHECK	1-47W811-1 / G-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP CVC CVO	2Y RO RO		 DTJ-18 DTJ-18
1-RFV-63-637-S	RHR TO HOT LEG 1 & 3 INJ LINE RELIEF	1-47W811-1 / F-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-63-640-S	HOT LEG 1 RHR INJ LINE CHECK	1-47W811-1 / G-3	A/C	ACT	1	8	CK	SA	C	O/C	N/A	LTP CVC CVO	2Y RO RO		 DTJ-18 DTJ-18

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-63-641-S	1-CKV-63-641HOT LEG 1 INJ HEADERCHECK	1-47W811-1 / F-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
1-CKV-63-643-S	HOT LEG 3 RHR INJ LINE CHECK	1-47W811-1 / F-3	A/C	ACT	1	8	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
1-CKV-63-644-S	HOT LEG 3 INJ HEADER CHECK	1-47W811-1 / D-2	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
1-CKV-63-725	SIS RELIEF VALVE DISCHARGE HEADER CHECK	1-47W811-1 / E-8	C	ACT	2	2	CK	SA	C	O/C	N/A	CM	CM		
1-RFV-63-835	RHR HX 1B-B OUTLET TO SI PUMP SUCTION RELIEF	1-47W811-1 / E-10	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-63-868	1-CKV-77-868CONTAINMENT N2 HEADERCHECK	1-47W830-6 / B-7	A/C	ACT	2	1	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-28
												CVC	CSD		DTJ-28
1-FCV-67-9A-A	ERCW STRAINER 1A-A BACKWASH	1-47W845-1 / G-9	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
1-FCV-67-9B-A	ERCW STRAINER 1A-A FLUSH CONTROL	1-47W845-1 / H-9	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
1-FCV-67-10A-B	ERCW STRAINER 1B-B BACKWASH	1-47W845-1 / F-3	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
1-FCV-67-10B-B	ERCW STRAINER 1B-B FLUSH CONTROL	1-47W845-1 / F-3	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
1-FCV-67-65-B	DG HX 1B1/1B2 ERCW SUP HDR 2A ISOL	1-47W845-1 / C-5	B	PASS	3	8	BF	MO	C	C	FAI	RPI	2Y		

Appendix B - Valve Test Plan

Page 54 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-66-A	DG HX 1A1/1A2 ERCW SUP HDR 1A ISOL	1-47w845-1 / C-10	B	ACT	3	8	BF	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-67-67-B	DG HX 1B1/1B2 ERCW SUP HDR 1B ISOL	1-47W845-1 / C-6	B	ACT	3	8	BF	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-67-68-A	DG HX 1A1/1A2 ERCW SUP HDR 2B ISOL	1-47W845-1 / C-10	B	PASS	3	8	BF	MO	C	C	FAI	RPI	2Y		
1-FCV-67-83-B	LOWER CNTMT CLR HDR A ERCW SUP ISOL	1-47W845-3 / H-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-87-A	LOWER CNTMT CLR HDR A ERCW RET ISOL	1-47W845-3 / H-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-88-B	LOWER CNTMT CLR HDR A ERCW RET ISOL	1-47W845-3 / H-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-89-A	LOWER CNTMT CLR HDR A ERCW SUP ISOL	1-47W845-3 / H-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-91-B	LOWER CNTMT CLR HDR C ERCW SUP ISOL	1-47W845-3 / G-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-95-A	LOWER CNTMT CLR HDR C ERCW RET ISOL	1-47W845-3 / F-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-96-B	LOWER CNTMT CLR HDR C ERCW RET ISOL	1-47W845-3 / F-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-97-A	LOWER CNTMT CLR HDR C ERCW SUP ISOL	1-47W845-3 / G-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-99-A	LOWER CNTMT CLR HDR B ERCW SUP ISOL	1-47W845-3 / F-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-103-B	LOWER CNTMT CLR HDR B ERCW RET ISOL	1-47W845-3 / E-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-104-A	LOWER CNTMT CLR HDR B ERCW RET ISOL	1-47W845-3 / E-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-105-B	LOWER CNTMT CLR HDR B ERCW SUP ISOL	1-47W845-3 / F-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-107-A	LOWER CNTMT CLR HDR D ERCW SUP ISOL	1-47W845-3 / E-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-111-B	LOWER CNTMT CLR HDR D ERCW RET ISOL	1-47W845-3 / D-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-112-A	LOWER CNTMT CLR HDR D ERCW RET ISOL	1-47W845-3 / D-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-113-B	LOWER CNTMT CLR HDR D ERCW SUP ISOL	1-47W845-3 / E-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-67-123-B	CNTMT SPRAY HX 1B-B ERCW SUPPLY	1-47W845-2 / D-9	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12
1-FCV-67-124-B	CNTMT SPRAY HX 1B-B ERCW RETURN	1-47W845-2 / E-8	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12

Appendix B - Valve Test Plan

Page 57 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-125-A	CNTMT SPRAY HX 1A-A ERCW SUPPLY	1-47W845-2 / C-9	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12
1-FCV-67-126-A	CNTMT SPRAY HX 1A-A ERCW RETURN	1-47W845-2 / D-7	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12
1-FCV-67-130-A	UPPER CNTMT VENT CLR 1A ERCW SUP HDR ISOL	1-47W845-3 / C-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-131-B	UPPER CNTMT VENT CLR 1A ERCW RET HDR ISOL	1-47W845-3 / C-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-133-A	UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL	1-47W845-3 / B-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-134-B	UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL	1-47W845-3 / C-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-138-B	UPPER CNTMT VENT CLR 1B ERCW SUP HDR ISOL	1-47W845-3 / B-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-139-A	UPPER CNTMT VENT CLR 1B ERCW RET HDR ISOL	1-47W845-3 / B-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-141-B	UPPER CNTMT VENT CLR 1D ERCW SUP HDR ISOL	1-47W845-3 / A-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-142-A	UPPER CNTMT VENT CLR 1D ERCW RET HDR ISOL	1-47W845-3 / A-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-143-A	CCS HX A OUTLET ERCW FLOW CNTL BYP	1-47W845-2 / C-8	B	ACT	3	12	GL	MO	O/C	O/C	FAI	RPI STC STO	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-146-A	CCS HX A OUTLET ERCW FLOW CNTL	1-47W845-2 / C-7	B	ACT	3	24	BF	MO	O/C	O/C	FAI	RPI STC STO	2Y Q Q		
1-FCV-67-162	CCS/AFW PMP SPACE CLR 1A-A ERCW SUP FLOW CNTL	1-47W845-4 / B-4	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-164	CCS/AFW PMP SPACE CLR 1B-B ERCW SUP FLOW CNTL	1-47W845-4 / B-6	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-176	SIP ROOM COOLER 1A-A ERCW SUP FLOW CNTL	1-47W845-4 / D-4	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-182	SIP ROOM COOLER 1B-B ERCW SUP FLOW CNTL	1-47W845-4 / D-6	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-184	CSP ROOM COOLER 1A-A ERCW SUP FLOW CNTL	1-47W845-4 / D-4	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		

Appendix B - Valve Test Plan

Page 60 of 163

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-186	CSP ROOM COOLER 1B-B ERCW SUP FLOW CNTL	1-47W845-4 / D-6	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-213	SFP/TBBP SPACE CLR 1A -A ERCW SUP FLOW CNTL	1-47W845-4 / A-4	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-215	SFP/TBBP SPACE CLR 1B -B ERCW SUP FLOW CNTL	1-47W845-4 / B-6	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-295-A	UPPER CNTMT VENT CLR 1A ERCW RET ISOL	1-47W845-3 / C-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-296-A	UPPER CNTMT VENT CLR 1C ERCW RET ISOL	1-47W845-3 / C-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-297-B	UPPER CNTMT VENT CLR 1B ERCW RET ISOL	1-47W845-3 / B-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-298-B	UPPER CNTMT VENT CLR 1D ERCW RET ISOL	1-47W845-3 / A-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-67-342	PIPE CHASE COOLER 1A-A ERCW SUP FLOW CNTL	1-47W845-4 / G-4	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-344	PIPE CHASE COOLER 1B-B ERCW SUP FLOW CNTL	1-47W845-4 / G-6	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-346	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	1-47W845-4 / F-4	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-348	PENT ROOM COOLER 1B-B ERCW SUP FLOW CNTL	1-47W845-4 / F-6	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-67-350	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	1-47W845-4 / F-4	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-352	PENT ROOM COOLER 1B-B ERCW SUP FLOW CNTL	1-47W845-4 / F-6	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-354	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	1-47W845-4 / G-4	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-FCV-67-356	PENT ROOM COOLER 1B-B ERCW SUP FLOW CNTL	1-47W845-4 / G-6	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
1-CKV-67-508A-A	DG HX 1A1/1A2 ERCW SUP HDR 1A CHECK	1-47W845-1 / C-10	C	ACT	3	8	CK	SA	C	O/C	N/A	CM	CM		
1-CKV-67-508B-B	DG HX 1B1/1B2 ERCW SUP HDR 1B CHECK	1-47W845-1 / C-5	C	ACT	3	8	CK	SA	C	O/C	N/A	CM	CM		
1-RFV-67-509A-A	DG HX 1A2 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-509B-B	DG HX 1B2 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-67-513A-A	DG HX 1A1/1A2 ERCW SUP HDR 2B CHECK	1-47W845-1 / C-10	C	PASS	3	8	CK	SA	C	C	N/A	NTR	NTR		
1-CKV-67-513B-B	DG HX 1B1/1B2 ERCW SUP HDR 2A CHECK	1-47W845-1 / C-5	C	PASS	3	8	CK	SA	C	C	N/A	NTR	NTR		
1-RFV-67-514A-A	DG HX 1A1 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-514B-B	DG HX 1B1 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-ISV-67-523B-B	LOWER CNTMT VENT CLR 1B & 1D ERCW SUP ISOL	1-47W845-2 / F-10	B	ACT	3	10	BF	M	O	C	N/A	MS	2Y		
1-RFV-67-539A-A	CS HX 1A ERCW RET HDR RELIEF	1-47W845-2 / D-8	C	ACT	3	2	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-539B-B	CS HX 1B ERCW RET HDR RELIEF	1-47W845-2 / D-8	C	ACT	3	2	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-550	CCS HX A ERCW OUT RELIEF	1-47W845-2 / C-7	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-566A-A	RCP/CRD VENT CLR A ERCW SUP HDR RELIEF	1-47W845-3 / H-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-566B-B	RCP/CRD VENT CLR B ERCW SUP HDR RELIEF	1-47W845-3 / F-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-566C-A	RCP/CRD VENT CLR C ERCW SUP HDR RELIEF	1-47W845-3 / G-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-566D-B	RCP/CRD VENT CLR D ERCW SUP HDR RELIEF	1-47W845-3 / E-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-573A-A	LOWER CNTMT CLR HDR A ERCW RET RELIEF	1-47W845-3 / G-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-573B-B	LOWER CNTMT CLR HDR B ERCW RET RELIEF	1-47W845-3 / E-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-573C-A	LOWER CNTMT CLR HDR C ERCW RET RELIEF	1-47W845-3 / F-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-573D-B	LOWER CNTMT CLR HDR D ERCW RET RELIEF	1-47W845-3 / D-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-CKV-67-575A-A	1-FCV-67-87 BYPASS CHECK	1-47W845-3 / H-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-575B-B	1-FCV-67-103 BYPASS CHECK	1-47W845-3 / E-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-67-575C-A	1-FCV-67-95 BYPASS CHECK	1-47W845-3 / G-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-575D-B	1-FCV-67-111 BYPASS CHECK	1-47W845-3 / D-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-580A-A	UPPER CNTMT VENT CLR 1A ERCW SUP HDR CHECK	1-47W845-3 / C-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		
1-CKV-67-580B-B	UPPER CNTMT VENT CLR 1B ERCW SUP HDR CHECK	1-47W845-3 / B-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		
1-CKV-67-580C-A	UPPER CNTMT VENT CLR 1C ERCW SUP HDR CHECK	1-47W845-3 / B-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		
1-CKV-67-580D-B	UPPER CNTMT VENT CLR 1D ERCW SUP HDR CHECK	1-47W845-3 / A-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-RFV-67-582A-A	UPPER CNTMT VENT CLR 1A ERCW SUP HDR RELIEF	1-47W845-3 / C-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-582B-B	UPPER CNTMT VENT CLR 1B ERCW SUP HDR RELIEF	1-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-582C-A	UPPER CNTMT VENT CLR 1C ERCW SUP HDR RELIEF	1-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-582D-B	UPPER CNTMT VENT CLR 1D ERCW SUP HDR RELIEF	1-47W845-3 / A-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-CKV-67-585A-A	1-FCV-67-295 BYPASS CHECK	1-47W845-3 / D-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-585B-B	1-FCV-67-297 BYPASS CHECK	1-47W845-3 / B-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-585C-A	1-FCV-67-296 BYPASS CHECK	1-47W845-3 / C-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-585D-B	1-FCV-67-298 BYPASS CHECK	1-47W845-3 / A-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-940A-A	ERCW SCRN WASH PMP 1A-A DISCH CHECK	1-47W845-1 / H-6	C	ACT	3	3	CK	SA	C	O	N/A	CM	CM		
1-RFV-67-1020A-A	INSTR RM WATER CLR 1A ERCW RELIEF	1-47W845-2 / F-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1020B-B	INSTR RM WATER CLR 1B ERCW RELIEF	1-47W845-2 / E-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1022-A	SD BD RM WTR CLR A-A ERCW RELIEF	1-47W845-2 / B-11	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1022A-A	CRD VENT COOLER 1A-A ERCW RELIEF	1-47W845-3 / H-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1022B-B	CRD VENT COOLER 1B-B ERCW RELIEF	1-47W845-3 / F-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1022C-A	CRD VENT COOLER 1C-A ERCW RELIEF	1-47W845-3 / G-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-RFV-67-1022D-B	CRD VENT CLR 1D-B ERCW RELIEF	1-47W845-3 / D-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1024A-A	RCP MTR CLR 1 ERCW RELIEF	1-47W845-3 / H-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1024B-B	RCP MTR CLR 2 ERCW RELIEF	1-47W845-3 / F-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1024C-A	RCP MTR CLR 3 ERCW RELIEF	1-47W845-3 / G-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1024D-B	RCP MTR CLR 4 ERCW RELIEF	1-47W845-3 / D-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1025A-A	LWR CNTMT VENT CLR 1A-A ERCW RELIEF	1-47W845-3 / H-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1025B-B	LWR CNTMT VENT CLR 1B-B ERCW RELIEF	1-47W845-3 / F-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1025C-A	LWR CNTMT VENT CLR 1C-A ERCW RELIEF	1-47W845-3 / G-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1025D-B	LWR CNTMT VENT CLR 1D-B ERCW RELIEF	1-47W845-3 / D-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1026A-A	UPPER CNTMT VENT CLR 1A ERCW RELIEF	1-47W845-3 / C-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1026B-B	UPPER CNTMT VENT CLR 1B ERCW RELIEF	1-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1026C-A	UPPER CNTMT VENT CLR 1C ERCW RELIEF	1-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1026D-B	UPPER CNTMT VENT CLR 1D ERCW RELIEF	1-47W845-3 / A-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1027A-A	SPF/TBBP SPACE CLR 1A -A ERCW RELIEF	1-47W845-4 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1027B-B	SFP/TBBP SPACE CLR 1B -B ERCW RELIEF	1-47W845-4 / B-7	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1028A-A	CCS/AFW PMP SPACE CLR 1A-A ERCW RELIEF	1-47W845-4 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1028B-B	CCS/AFW PMP SPACE CLR 1B-B ERCW RELIEF	1-47W845-4 / C-7	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1029A-A	CVCS CCP ROOM CLR 1A -A ERCW RELIEF	1-47W845-4 / C-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1029B-B	CVCS CCP ROOM CLR 1B -B ERCW RELIEF	1-47W845-4 / C-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1030B	PDP ROOM CLR 1C ERCW RELIEF	1-47W845-4 / C-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-RFV-67-1031A-A	SIS PMP RM CLR 1A-A ERCW RELIEF	1-47W845-4 / D-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1031B-B	SIS PMP RM CLR 1B-B ERCW RELIEF	1-47W845-4 / D-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1032A-A	CS PMP RM CLR 1A-A ERCW RELIEF	1-47W845-4 / D-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1032B-B	CS PMP RM CLR 1B-B ERCW RELIEF	1-47W845-4 / D-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1033A-A	RHR PMP RM CLR 1A-A ERCW RELIEF	1-47W845-4 / E-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1033B-B	RHR PMP RM CLR 1B-B ERCW RELIEF	1-47W845-4 / E-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1034A-A	PENT ROOM CLR 1A-A ERCW RELIEF	1-47W845-4 / F-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1034B-B	PENT ROOM CLR 1B-B ERCW RELIEF	1-47W845-4 / F-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1035A-A	PENT ROOM CLR 1A-A ERCW RELIEF	1-47W845-4 / F-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1035B-B	PENT ROOM CLR 1B-B ERCW RELIEF	1-47W845-4 / F-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1036A-A	PENT ROOM CLR 1A-A ERCW RELIEF	1-47W845-4 / F-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1036B-B	PENT ROOM CLR 1B-B ERCW RELIEF	1-47W845-4 / G-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1038A-A	PIPE CHASE CLR 1A-A ERCW RELIEF	1-47W845-4 / G-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1038B-B	PIPE CHASE CLR 1B-B ERCW RELIEF	1-47W845-4 / G-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1042A-A	STRAINER 1A-A ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-67-1042B-B	STRAINER 1B-B ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-CKV-67-1054A-A	1-FCV-67-89 BYPASS CHECK	1-47W845-3 / H-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-1054B-B	1-FCV-67-105 BYPASS CHECK	1-47W845-3 / E-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-67-1054C-A	1-FCV-67-97 BYPASS CHECK	1-47W845-3 / G-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-CKV-67-1054D-B	1-FCV-67-113 BYPASS CHECK	1-47W845-3 / D-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-FCV-68-22	REACTOR VESSEL FLANGE LEAKOFF	1-47W813-1 / B-8	B	PASS	2	0.375	GL	AO	O	O	O	RPI	2Y		
1-FCV-68-305-A	PRESSURIZER RELIEF TANK NITROGEN SUP FLOW CNTL	1-47W830-6 / G-7	A	ACT	2	0.75	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-68-307-A	PRESSURIZER RELIEF TANK GAS ANALYZER SUPPLY	1-47W625-8 / G-2	A	ACT	2	0.375	GA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-68-308-B	PRESSURIZER RELIEF TANK GAS ANALYZER SUPPLY	1-47W625-8 / F-1	A	ACT	2	0.375	GA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-68-332-B	PRESSURIZER PORV BLOCK VALVE	1-47W813-1 / C-2	B	ACT	1	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
1-FCV-68-333-A	PRESSURIZER PORV BLOCK VALVE	1-47W813-1 / B-2	B	ACT	1	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
1-PCV-68-334-B	PRESSURIZER PORV	1-47W813-1 / C-1	B	ACT	1	3	GL	SO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
1-PCV-68-340A-A	PRESSURIZER PORV	1-47W813-1 / B-1	B	ACT	1	3	GL	SO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
1-FSV-68-394-A	REACTOR VESSEL HEAD VENT	1-47W813-1 / F-7	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												FSC	CSD		DTJ-26
												STC	CSD		DTJ-26
												STO	CSD		DTJ-26
1-FSV-68-395-B	REACTOR VESSEL HEAD VENT	1-47W813-1 / G-7	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												FSC	CSD		DTJ-26
												STC	CSD		DTJ-26
												STO	CSD		DTJ-26

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FSV-68-396-B	REACTOR VESSEL HEAD VENT	1-47W813-1 / F-5	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												ET	CSD		IST-RR-3
												FSC	CSD		IST-RR-3
												RRA	RO		IST-RR-3
1-FSV-68-397-A	REACTOR VESSEL HEAD VENT	1-47W813-1 / G-6	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												ET	CSD		IST-RR-3
												FSC	CSD		IST-RR-3
												RRA	RO		IST-RR-3
1-CKV-68-559-S	SAFETY INJ SYS RELIEF DISCH CHECK	1-47W813-1 / H-4	C	ACT	2	4	CK	SA	C	O/C	N/A	CM	CM		
1-RFV-68-563-S	PRESSURIZER SAFETY VALVE	1-47W813-1 / A-3	C	ACT	1	6	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-68-564-S	PRESSURIZER SAFETY VALVE	1-47W813-1 / A-2	C	ACT	1	6	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-68-565-S	PRESSURIZER SAFETY VALVE	1-47W813-1 / A-2	C	ACT	1	6	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-68-849	PRESSURIZER RELIEF TANK N2 SUP HDR CHECK	1-47W830-6 / G-7	A/C	ACT	2	1	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-28
												CVC	CSD		DTJ-28
1-FCV-70-66	UNIT 1 CCS SURGE TANK VENT	1-47W859-1 / E-3	B	ACT	3	2	ANG	AO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-70-85-B	EXCESS LETDOWN HX CCS OUTLET	1-47W859-2 / D-10	A	ACT	2	6	BF	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-70-87-B	THERMAL BARRIER CCS RETURN	1-47W859-2 / H-9	A	ACT	2	3	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-70-89-B	RCP OIL COOLER CCS RET HDR	1-47W859-2 / E-9	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-70-90-A	THERMAL BARRIER CCS RETURN	1-47W859-2 / F-10	A	ACT	2	3	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-70-92-A	RCP OIL COOLER CCS RETURN	1-47W859-2 / E-10	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-70-100-A	RCP OIL COOLERS CCS SUPPLY	1-47W859-2 / G-3	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-70-133-A	THERMAL BARRIER CCS SUPPLY	1-47W859-2 / H-3	B	ACT	3	3	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-27

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-70-134-B	THERMAL BARRIER CCS SUPPLY	1-47W859-2 / H-3	A	ACT	2	3	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-70-140-B	RCP OIL COOLER CCS SUPPLY	1-47W859-2 / G-3	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
1-FCV-70-143-A	EXCESS LETDOWN HX CCS SUPPLY	1-47W859-2 / E-3	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
1-FCV-70-153-B	RHR HEAT EXCHANGER 1B CCS OUTLET	1-47W859-4 / F-3	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-70-156-A	RHR HEAT EXCHANGER 1A CCS OUTLET	1-47W859-4 / F-4	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y Q		
1-FCV-70-183-A	SAMPLE HEAT EXCHANGER CCS OUTLET	1-47W859-2 / C-9	B	ACT	3	3	GA	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-70-215-A	SAMPLE HEAT EXCHANGER CCS INLET	1-47W859-2 / A-8	B	ACT	3	3	GA	MO	O	C	FAI	RPI STC	2Y Q		
1-CKV-70-504A-A	CCS PUMP 1A-A DISCHARGE CHECK	1-47W859-1 / B-7	C	ACT	3	16	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
1-CKV-70-504B	CCS PUMP 1B-B DISCHARGE CHECK	1-47W859-1 / C-7	C	ACT	3	16	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
1-ISV-70-516	REACTOR BUILDING CCS SUPPLY ISOLATION	1-47W859-1 / B-5	B	ACT	3	8	BF	M	O	C	N/A	MS	2Y		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-RFV-70-521	WASTE GAS COMPR A HX CCS OUTLET RELIEF	1-47W859-1 / A-10	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-538-S	UNIT 1 CCS SURGE TANK RELIEF	1-47W859-1 / E-3	C	ACT	3	3	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-539-S	UNIT 1 CCS SURGE TANK RELIEF	1-47W859-1 / E-3	C	ACT	3	3	RV	SA	C	O/C	N/A	RV	10Y		DTJ-29
1-RFV-70-551A-A	RHR HEAT EXCHANGER 1A-A CCS OUTLET RELIEF	1-47W859-4 / E-5	C	ACT	3	1.5	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-551B-B	RHR HEAT EXCHANGER 1B-B CCS OUTLET RELIEF	1-47W859-4 / E-2	C	ACT	3	1.5	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-556A-A	CCP 1A-A OIL COOLERS CCS OUTLET RELIEF	1-47W859-4 / A-4	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-556B-B	CCP 1B-B OIL COOLERS CCS OUTLET RELIEF	1-47W859-4 / A-2	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-561A-A	SI PUMP 1A-A LUBE OIL COOLER CCS OUT RELIEF	1-47W859-4 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-561B-B	SI PUMP 1B-B LUBE OIL COOLER CCS OUT RELIEF	1-47W859-4 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-565A-A	RHR PMP 1A-A SEAL WATER HX CCS OUTLET RELIEF	1-47W859-4 / C-4	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-565B-B	RHR PMP 1B-B SEAL WATER HX CCS OUTLET RELIEF	1-47W859-4 / C-2	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-570A-A	CS PUMP 1A-A OIL HX CCS OUTLET RELIEF	1-47W859-4 / D-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-570B-B	CS PUMP 1B-B OIL HX CCS OUTLET RELIEF	1-47W859-4 / D-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-578	CVCS LETDOWN HX 1A CCS OUTLET RELIEF	1-47W859-2 / A-7	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-584	CVCS SEAL WATER HX 1A CCS OUTLET RELIEF	1-47W859-2 / B-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-70-679	RCP THERMAL BARRIER CCS SUP HDR CHECK	1-47W859-2 / H-3	A/C	ACT	2	3	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ CSD CSD		 DTJ-31 DTJ-31
1-CKV-70-681A	RCP 1 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / G-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-70-681B	RCP 2 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / F-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-70-681C	RCP 3 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / F-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-70-681D	RCP 4 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / H-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-70-682A	RCP 1 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / G-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-70-682B	RCP 2 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / F-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-70-682C	RCP 3 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / E-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-CKV-70-682D	RCP 4 THERMAL BARRIER CCS SUPPLY CHECK	1-47W859-2 / H-9	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
1-RFV-70-683A	RCP 1 THERMAL BARRIER CCS RETURN RELIEF	1-47W859-2 / G-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-683B	RCP 2 THERMAL BARRIER CCS RETURN RELIEF	1-47W859-2 / F-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-683C	RCP 3 THERMAL BARRIER CCS RETURN RELIEF	1-47W859-2 / E-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-RFV-70-683D	RCP 4 THERMAL BARRIER CCS RETURN RELIEF	1-47W859-2 / H-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-CKV-70-687	1-FCV-70-87 BYPASS CHECK	1-47W859-2 / H-9	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-RFV-70-694	RCP OIL COOLER CCS SUPPLY RELIEF	1-47W859-2 / F-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
1-CKV-70-698	1-FCV-70-89 BYPASS CHECK	1-47W859-2 / E-9	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-ISV-70-700	RCP OIL COOLER CCS RETURN ISOLATION	1-47W859-2 / E-11	B	ACT	3	6	BF	M	O	C	N/A	MS	2Y		
1-RFV-70-703	EXCESS LETDOWN HX CCS OUT RELIEF	1-47W859-2 / E-5	A/C	ACT	2	3	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		
1-CKV-70-790	RCP OIL CLR HDR SUP BYPASS CHECK	1-47W859-2 / G-3	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
1-RFV-70-835	RCP THERMAL BARRIER CCS SUP HDR RLF	1-47W859-2 / H-6	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-FCV-72-2-B	CNTMT SPRAY HDR B ISOLATION	1-47W812-1 / A-3	A	ACT	2	10	GA	MO	C	O/C	FAI	RPI LTJ STC STO	2Y AppJ Q Q		
1-FCV-72-13-B	CNTMT SPRAY PUMP 1B-B MINIFLOW	1-47W812-1 / B-6	B	ACT	2	2	GL	MO	C	O/C	FAI	RPI STC STO	2Y Q Q		
1-FCV-72-21-B	RWST TO CNTMT SPRAY PUMP 1B-B SUCTION	1-47W812-1 / B-10	B	ACT	2	12	GA	MO	O	C	FAI	RPI STC	2Y Q		
1-FCV-72-22-A	RWST TO CNTMT SPRAY PUMP 1A-A SUCTION	1-47W812-1 / C-10	B	ACT	2	12	GA	MO	O	C	FAI	RPI STC	2Y Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-72-34-A	CNTMT SPRAY PMP 1A-A MINIFLOW	1-47W812-1 / C-6	B	ACT	2	2	GL	MO	C	O/C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
1-FCV-72-39-A	CNTMT SPRAY HDR A ISOLATION	1-47W812-1 / C-3	A	ACT	2	10	GA	MO	C	O/C	FAI	RPI	2Y		
												LTJ	AppJ		
												STC	Q		
												STO	Q		
1-RFV-72-40	1-FCV-72-40 BONNET PRESS RELIEF	1-47W812-1 / F-3	A/C	ACT	2	0.75	RV	SA	C	O/C	N/A	LTJ	AppJ		
												RV	RV		
1-FCV-72-40-A	RHR SPRAY HDR A ISOLATION	1-47W812-1 / F-3	A	ACT	2	8	GA	MO	C	O/C	FAI	RPI	2Y		
												LTJ	AppJ		
												STC	RO		DTJ-04
												STO	RO		DTJ-04
1-RFV-72-41	1-FCV-72-41 BONNET PRESS RELIEF	1-47W812-1 / E-3	A/C	ACT	2	0.75	RV	SA	C	O/C	N/A	LTJ	AppJ		
												RV	RV		
1-FCV-72-41-B	RHR SPRAY HDR B ISOLATION	1-47W812-1 / E-3	A	ACT	2	8	GA	MO	C	O/C	FAI	RPI	2Y		
												LTJ	AppJ		
												STC	RO		DTJ-04
												STO	RO		DTJ-04
1-FCV-72-44-A	CNTMT SUMP TO CS PUMP 1A-A SUCTION	1-47W812-1 / G-3	B	ACT	2	12	GA	MO	C	O	FAI	RPI	2Y		
												STO	RO		DTJ-24

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-72-45-B	CNTMT SUMP TO CS PUMP 1B-B SUCTION	1-47W812-1 / H-3	B	ACT	2	12	GA	MO	C	O	FAI	RPI STO	2Y RO		 DTJ-24
1-CKV-72-506-A	CNTMT SPRAY PMP 1A-A SUCTION CHECK	1-47W812-1 / C-10	C	ACT	2	12	CK	SA	C	O/C	N/A	CVC CVO	Q Q		
1-CKV-72-507-B	CNTMT SPRAY PMP 1B-B SUCTION CHECK	1-47W812-1 / B-10	C	ACT	2	12	CK	SA	C	O/C	N/A	CVC CVO	Q Q		
1-RFV-72-508-A	CNTMT SPRAY PMP 1A-A SUCTION RELIEF	1-47W812-1 / C-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-RFV-72-509-B	CNTMT SPRAY PMP 1B-B SUCTION RELIEF	1-47W812-1 / A-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-72-524-A	CNTMT SPRAY PMP 1A-A DISCH CHECK	1-47W812-1 / D-6	C	ACT	2	10	CK	SA	C	O	N/A	BDC CVO	Q Q		
1-CKV-72-525-B	CNTMT SPRAY PMP 1B-B DISCH CHECK	1-47W812-1 / A-6	C	ACT	2	10	CK	SA	C	O	N/A	BDC CVO	Q Q		
1-CKV-72-548-A	CNTMT SPRAY HDR A CNTMT CHECK VALVE	1-47W812-1 / D-2	C	ACT	2	10	CK	SA	C	O	N/A	CM	CM		
1-CKV-72-549-B	CNTMT SPRAY HDR B CNTMT CHECK VALVE	1-47W812-1 / A-2	C	ACT	2	10	CK	SA	C	O	N/A	CM	CM		
1-CKV-72-562-A	RHR SPRAY HDR A CNTMT CHECK VALVE	1-47W812-1 / F-2	C	ACT	2	8	CK	SA	C	O	N/A	CM	CM		
1-CKV-72-563-B	RHR SPRAY HDR B CNTMT CHECK VALVE	1-47W812-1 / E-2	C	ACT	2	8	CK	SA	C	O	N/A	CM	CM		
1-FCV-74-1-A	LOOP 4 HOT LEG TO RHR SUCTION	1-47W810-1 / G-2	A	ACT	1	14	GA	MO	C	O/C	FAI	LTP RPI STC STO	2Y 2Y CSD CSD		 DTJ-17 DTJ-17

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-74-2-B	LOOP 4 HOT LEG TO RHR SUCTION	1-47W810-1 / G-3	A	ACT	1	14	GA	MO	C	O/C	FAI	LTP	2Y		
												RPI	2Y		
												STC	CSD		DTJ-17
												STO	CSD		DTJ-17
1-FCV-74-3-A	RHR PUMP 1A-A SUCTION	1-47W810-1 / F-9	B	ACT	2	14	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
1-FCV-74-8-A	1-FCV-74-2 BYPASS RHR SUCTION	1-47W810-1 / G-3	A	ACT	1	10	GA	MO	C	O/C	FAI	LTP	2Y		
												RPI	2Y		
												STC	CSD		DTJ-17
												STO	CSD		DTJ-17
1-FCV-74-9-B	1-FCV-74-1 BYPASS RHR SUCTION	1-47W810-1 / G-2	A	ACT	1	10	GA	MO	C	O/C	FAI	LTP	2Y		
												RPI	2Y		
												STC	CSD		DTJ-17
												STO	CSD		DTJ-17
1-FCV-74-12-A	RHR PUMP 1A-A MINIMUM FLOW	1-47W810-1 / G-7	B	ACT	2	3	GL	MO	O	O/C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
1-FCV-74-21-B	RHR PUMP 1B-B SUCTION	1-47W810-1 / C-9	B	ACT	2	14	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
1-FCV-74-24-B	RHR PUMP 1B-B MINIMUM FLOW	1-47W810-1 / B-6	B	ACT	2	3	GL	MO	O	O/C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-74-33-A	RHR HEAT EXCHANGER 1A OUTLET CROSSTIE	1-47W810-1 / E-4	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-25
1-FCV-74-35-B	RHR HEAT EXCHANGER 1B OUTLET CROSSTIE	1-47W810-1 / C-4	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-25
1-RFV-74-505-S	RHR PUMP SUCTION HDR RELIEF	1-47W810-1 / H-3	C	ACT	2	3	RV	SA	C	O/C	N/A	RV	RV		
1-CKV-74-514-A	RHR PUMP 1A-A DISCHARGE CHECK	1-47W810-1 / F-8	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-18 DTJ-18
1-CKV-74-515-B	RHR PUMP 1B-B DISCHARGE CHECK	1-47W810-1 / C-8	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-18 DTJ-18
1-CKV-74-544-A	RHR HEADER 1A MINIMUM FLOW CHECK	1-47W810-1 / F-5	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-30 DTJ-30
1-CKV-74-545-B	RHR HEADER 1B MINIMUM FLOW CHECK	1-47W810-1 / C-5	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-30 DTJ-30
1-FCV-77-9-B	RCDT PUMP DISCHARGE FLOW CONTROL	1-47W830-1 / D-1	A	ACT	2	3	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-77-10-A	RCDT PUMP DISCHARGE FLOW CONTROL	1-47W830-1 / E-1	A	ACT	2	3	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-77-16-B	RCDT TO GAS ANALYZER FLOW CONTROL	1-47W830-1 / B-5	A	ACT	2	0.75	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-77-17-A	RCDT TO GAS ANALYZER FLOW CONTROL	1-47W830-1 / B-6	A	ACT	2	0.75	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-77-18-B	RCDT TO VENT HDR FLOW CONTROL	1-47W830-1 / B-5	A	ACT	2	1	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-77-19-A	RCDT TO VENT HDR FLOW CONTROL	1-47W830-1 / B-5	A	ACT	2	1	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-77-20-A	RCDT N2 SUPPLY FLOW CONTROL	1-47W830-1 / C-5	A	ACT	2	1	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-77-127-B	RB SUMP DISCHARGE FLOW CONTROL	1-47W851-1 / F-7	A	ACT	2	2	PLG	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-77-128-A	RB SUMP DISCHARGE FLOW CONTROL	1-47W851-1 / F-7	A	ACT	2	2	PLG	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-RFV-77-2875	RB SUMP DISCH RLF	1-47W851-1 / F-7	A/C	ACT	2	2	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		
1-ISV-78-557	UNIT 1 REFLG CAVITY SUP HDR ISOL	1-47W855-1 / G-7	A	PASS	2	4	DIA	M	C	C	N/A	LTJ	AppJ		
1-ISV-78-558	UNIT 1 REFLG CAVITY SUP HDR ISOL	1-47W855-1 / G-8	A	PASS	2	4	DIA	M	C	C	N/A	LTJ	AppJ		
1-ISV-78-560	UNIT 1 REFLG CAVITY RETURN HDR ISOL	1-47W855-1 / H-8	A	PASS	2	6	DIA	M	C	C	N/A	LTJ	AppJ		
1-ISV-78-561	UNIT 1 REFLG CAVITY RETURN HDR ISOL	1-47W855-1 / H-7	A	PASS	2	6	DIA	M	C	C	N/A	LTJ	AppJ		
1-FCV-81-12-A	PRIMARY WATER TO PRT AND RCP STANDPIPES	1-47W819-1 / F-4	A	ACT	2	3	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-CKV-81-502	PRIMARY WATER CNTMT HDR CHECK VLV	1-47W819-1 / F-4	A/C	ACT	2	3	CK	SA	O	C	N/A	LTJ CM	AppJ CM		
1-ISV-84-530-S	RCDT PMPS DISCH ISOL TO FLOOD MODE AUX BORATIO	1-47W809-7 / F-7	A	PASS	2	1	GL	M	C	C	N/A	LTJ	AppJ		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-90-107-A	CNTMT BLDG LOWER COMPT AIR RAD MON SUPPLY	1-47W610-90-3 / A -9	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-90-108-B	CNTMT BLDG LOWER COMPT AIR RAD MON SUPPLY	1-47W610-90-3 / C -8	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-90-109-B	CNTMT BLDG LOWER COMPT AIR RAD MON SUPPLY	1-47W610-90-3 / C -8	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-90-110-B	CNTMT BLDG LOWER COMPT AIR RAD MON RETURN	1-47W610-90-3 / C -8	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-90-111-A	CNTMT BLDG LOWER COMPT AIR RAD MON RETURN	1-47W610-90-3 / D -9	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-90-113-A	CNTMT BLDG UPPER COMPT AIR RAD MON SUPPLY	1-47W610-90-3 / A -5	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-90-114-B	CNTMT BLDG UPPER COMPT AIR RAD MON SUPPLY	1-47W610-90-3 / C -4	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
1-FCV-90-115-B	CNTMT BLDG UPPER COMPT AIR RAD MON SUPPLY	1-47W610-90-3 / C -4	A	ACT	2	1.5	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
1-FCV-90-116-B	CNTMT BLDG UPPER COMPT AIR RAD MON RETURN	1-47W610-90-3 / C -4	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
1-FCV-90-117-A	CNTMT BLDG UPPER COMPT AIR RAD MON RETURN	1-47W610-90-3 / D -5	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-1-4-T	MAIN STEAM ISOL VALVE LOOP 1	2-47W801-1 / C-3	B	ACT	2	32	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-01
												STC	RO		DTJ-01
2-PCV-1-5-T	MAIN STEAM LOOP 1 PORV	2-47W801-1 / C-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
2-FCV-1-7-B	STEAM GENERATOR 1 BLOWDOWN ISOL	2-47W801-2 / C-4	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-FCV-1-11-T	MAIN STEAM ISOL VALVE LOOP 2	2-47W801-1 / E-3	B	ACT	2	32	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-01
												STC	RO		DTJ-01
2-PCV-1-12-T	MAIN STEAM LOOP 2 PORV	2-47W801-1 / D-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
2-FCV-1-14-A	STEAM GENERATOR 2 BLOWDOWN ISOL	2-47W801-2 / E-4	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-FCV-1-15-A	MAIN STEAM LOOP 1 TD AUX FWP SUP	2-47W803-2 / C-2	B	ACT	2	4	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-1-16-A	MAIN STEAM LOOP 4 TD AUX FWP SUP	2-47W803-2 / A-2	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-1-17-A	MAIN STEAM AUX FWP HDR SUPPLY ISOL	2-47W803-2 / B-4	B	ACT	3	4	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-02
2-FCV-1-18-B	MAIN STEAM AUX FWP HDR SUPPLY ISOL	2-47W803-2 / B-4	B	ACT	3	4	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-02
2-FCV-1-22-T	MAIN STEAM ISOL VLV LOOP 3	2-47W801-1 / F-3	B	ACT	2	32	GL	AO	O	C	C	RPI FSC STC	2Y RO RO		 DTJ-01 DTJ-01
2-PCV-1-23-T	MAIN STEAM LOOP 3 PORV	2-47W801-1 / F-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI FSC STC STO	2Y RO RO RO		
2-FCV-1-25-B	STEAM GENERATOR 3 BLOWDOWN ISOL	2-47W801-2 / G-4	B	ACT	2	4	GL	SO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-1-29-T	MAIN STEAM ISOL VALVE LOOP 4	2-47W801-1 / A-3	B	ACT	2	32	GL	AO	O	C	C	RPI FSC STC	2Y RO RO		 DTJ-01 DTJ-01

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-PCV-1-30-T	MAIN STEAM LOOP 4 PORV	2-47W801-1 / A-2	B	ACT	2	6	GL	AO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
2-FCV-1-32-A	STEAM GENERATOR 4 BLOWDOWN ISOL	2-47W801-2 / B-4	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-FCV-1-51-S	TD AUX FEEDWATER PMP TRIP & THROTTLE VALVE	2-47W803-2 / B-6	B	ACT	3	4	GA	MO	O/C	O/C	FAI	RPI	2Y		C*
												STC	Q		
												STO	Q		
2-FCV-1-147-A	MAIN STEAM ISOL VLV LOOP 1 BYP WARMING VLV	2-47W801-1 / C-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03
2-FCV-1-148-B	MAIN STEAM ISOL VLV LOOP 2 BYP WARMING VLV	2-47W801-1 / E-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-1-149-A	MAIN STEAM ISOL VLV LOOP 3 BYP WARMING VLV	2-47W801-1 / G-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03
2-FCV-1-150-B	MAIN STEAM ISOL VLV LOOP 4 BYP WARMING VLV	2-47W801-1 / B-3	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	CSD		DTJ-03
												STC	CSD		DTJ-03
2-FCV-1-181-A	STEAM GENERATOR 1 BLOWDOWN ISOL	2-47W801-2 / D-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-FCV-1-182-B	STEAM GENERATOR 2 BLOWDOWN ISOL	2-47W801-2 / F-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-FCV-1-183-A	STEAM GENERATOR 3 BLOWDOWN ISOL	2-47W801-2 / H-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-FCV-1-184-B	STEAM GENERATOR 4 BLOWDOWN ISOL	2-47W801-2 / B-2	B	ACT	2	4	GL	SO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-SFV-1-512	MAIN STEAM LOOP 3 SAFETY VALVE	2-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-513	MAIN STEAM LOOP 3 SAFETY VALVE	2-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-SFV-1-514	MAIN STEAM LOOP 3 SAFETY VALVE	2-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-515	MAIN STEAM LOOP 3 SAFETY VALVE	2-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-516	MAIN STEAM LOOP 3 SAFETY VALVE	2-47W801-1 / F-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-517	MAIN STEAM LOOP 2 SAFETY VALVE	2-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-518	MAIN STEAM LOOP 2 SAFETY VALVE	2-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-519	MAIN STEAM LOOP 2 SAFETY VALVE	2-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-520	MAIN STEAM LOOP 2 SAFETY VALVE	2-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-521	MAIN STEAM LOOP 2 SAFETY VALVE	2-47W801-1 / D-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-522	MAIN STEAM LOOP 1 SAFETY VALVE	2-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-523	MAIN STEAM LOOP 1 SAFETY VALVE	2-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-524	MAIN STEAM LOOP 1 SAFETY VALVE	2-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-525	MAIN STEAM LOOP 1 SAFETY VALVE	2-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-526	MAIN STEAM LOOP 1 SAFETY VALVE	2-47W801-1 / B-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-527	MAIN STEAM LOOP 4 SAFETY VALVE	2-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-528	MAIN STEAM LOOP 4 SAFETY VALVE	2-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-529	MAIN STEAM LOOP 4 SAFETY VALVE	2-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-530	MAIN STEAM LOOP 4 SAFETY VALVE	2-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-SFV-1-531	MAIN STEAM LOOP 4 SAFETY VALVE	2-47W801-1 / A-2	C	ACT	2	6	RV	SA	C	O/C	N/A	RV	RV		
2-ISV-1-619	MAIN STEAM LOOP 1 PORV ISOLATION	2-47W801-1 / C-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		
2-ISV-1-620	MAIN STEAM LOOP 2 PORV ISOLATION	2-47W801-1 / D-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-ISV-1-621	MAIN STEAM LOOP 3 PORV ISOLATION	2-47W801-1 / F-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		
2-ISV-1-622	MAIN STEAM LOOP 4 PORV ISOLATION	2-47W801-1 / A-2	B	ACT	2	6	GA	M	O	C	N/A	MS	2Y		
2-CKV-1-891-S	MS SUPPLY FW TURB CHECK	2-47W803-2 / C-3	C	ACT	2	4	CK	SA	C	O/C	N/A	CM	CM		
2-CKV-1-892-S	MS SUPPLY FW TURB CHECK	2-47W803-2 / A-3	C	ACT	2	4	CK	SA	C	O/C	N/A	CM	CM		
2-FCV-3-33-A	STEAM GENERATOR 1 MFW ISOL	2-47W803-1 / C-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-35	STEAM GENERATOR 1 MFW REG VALVE	2-47W803-1 / C-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-35A	STEAM GENERATOR 1 MFW BYPASS REG VALVE	2-47W803-1 / C-4	B	ACT	3	6	GL	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-47-B	STEAM GENERATOR 2 MFW ISOL	2-47W803-1 / E-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-48	STEAM GENERATOR 2 MFW REG VALVE	2-47W803-1 / E-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-3-48A	STEAM GENERATOR 2 MFW BYPASS REG VALVE	2-47W803-1 / D-4	B	ACT	3	6	GL	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-87-A	STEAM GENERATOR 3 MFW ISOL	2-47W803-1 / F-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-90	STEAM GENERATOR 3 MFW REG VALVE	2-47W803-1 / F-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-90A	STEAM GENERATOR 3 MFW BYPASS REG VALVE	2-47W803-1 / F-4	B	ACT	3	6	GL	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-100-B	STEAM GENERATOR 4 MFW ISOL	2-47W803-1 / B-3	B	ACT	2	16	GA	MO	O	C	FAI	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-103	STEAM GENERATOR 4 MFW REG VALVE	2-47W803-1 / B-4	B	ACT	3	16	ANG	AO	O	C	C	RPI	2Y		C*
												FSC	RO		DTJ-06
												STC	RO		DTJ-06

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-3-103A	STEAM GENERATOR 4 MFW BYPASS REG VALVE	2-47W803-1 / A-4	B	ACT	3	6	GL	AO	O	C	C	RPI FSC STC	2Y RO RO		C* DTJ-06 DTJ-06
2-FCV-3-116A-A	ERCW HEADER A AFW PUMP 2A-A SUCTION	2-47W803-2 / E-6	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-3-116B-A	ERCW HEADER A AFW PUMP 2A-A SUCTION	2-47W803-2 / E-6	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-PCV-3-122	AUX FEEDWATER PMP 2A-A DISCHARGE PRESS CONTROL	2-47W803-2 / D-5	B	ACT	3	4	GL	AO	C	O	C	FSC STO	Q Q		
2-FCV-3-126A-B	ERCW HEADER B AFW PUMP 2B-B SUCTION	2-47W803-2 / E-7	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-3-126B-B	ERCW HEADER B AFW PUMP 2B-B SUCTION	2-47W803-2 / E-7	B	ACT	3	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-PCV-3-132	AUX FEEDWATER PMP 2B-B DISCHARGE PRESS CONTROL	2-47W803-2 / D-6	B	ACT	3	4	GL	AO	C	O	C	FSC STO	Q Q		
2-FCV-3-136A-A	ERCW HEADER A TD AFW PMP SUCT	2-47W803-2 / C-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-3-136B-A	ERCW HEADER A TD AFW PMP SUCT	2-47W803-2 / C-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI STO	2Y Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-LCV-3-148A-B	SG 3 AUX FEEDWATER 2-LCV-3-148 BYPASS	2-47W803-2 / G-3	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
2-LCV-3-148-B	MD AFW PUMP 2B-B SG 3 LEVEL CONTROL	2-47W803-2 / G-3	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		
2-LCV-3-156-A	MD AFW PUMP 2A-A SG 2 LEVEL CONTROL	2-47W803-2 / E-3	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		
2-LCV-3-156A-A	SG 2 AUX FEEDWATER 2-LCV-3-156 BYPASS	2-47W803-2 / E-3	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
2-LCV-3-164-A	MD AFW PUMP 2A-A SG 1 LEVEL CONTROL	2-47W803-2 / C-3	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-LCV-3-164A-A	SG 1 AUX FEEDWATER 2-LCV-3-164 BYPASS	2-47W803-2 / D-3	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
2-LCV-3-171A-B	SG 4 AUX FEEDWATER 2-LCV-3-171 BYPASS	2-47W803-2 / B-3	B	ACT	3	2	ANG	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
2-LCV-3-171-B	MD AFW PUMP 2B-B SG 4 LEVEL CONTROL	2-47W803-2 / B-3	B	ACT	3	4	GL	AO	C	O/C	O	RPI	2Y		
												FSO	Q		
												STC	Q		
												STO	Q		
2-LCV-3-172-A	TD AFW PUMP SG 3 LEVEL CONTROL	2-47W803-2 / G-3	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
2-LCV-3-173-B	TD AFW PUMP SG 2 LEVEL CONTROL	2-47W803-2 / E-3	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-LCV-3-174-B	TD AFW PUMP SG 1 LEVEL CONTROL	2-47W803-2 / C-3	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
2-LCV-3-175-A	TD AFW PUMP SG 4 LEVEL CONTROL	2-47W803-2 / A-3	B	ACT	3	3	GL	AO	C	O/C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
												STO	Q		
2-FCV-3-179A-B	ERCW HEADER B TD AFW PMP SUCT	2-47W803-2 / C-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI	2Y		
												STO	Q		
2-FCV-3-179B-B	ERCW HEADER B TD AFW PMP SUCT	2-47W803-2 / C-4	B	ACT	3	6	GA	MO	C	O	FAI	RPI	2Y		
												STO	Q		
2-FCV-3-185	STEAM GENERATOR 1 MFW BACKFLUSH WARMING	2-47W803-1 / C-2	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-186	STEAM GENERATOR 2 MFW BACKFLUSH WARMING	2-47W803-1 / E-2	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-3-187	STEAM GENERATOR 3 MFW BACKFLUSH WARMING	2-47W803-1 / G-2	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-188	STEAM GENERATOR 4 MFW BACKFLUSH WARMING	2-47W803-1 / B-2	B	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-236	STEAM GENERATOR 1 MFW BYPASS LINE ISOL	2-47W803-1 / C-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-239	STEAM GENERATOR 2 MFW BYPASS LINE ISOL	2-47W803-1 / D-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-242	STEAM GENERATOR 3 MFW BYPASS LINE ISOL	2-47W803-1 / F-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-3-245	STEAM GENERATOR 4 MFW BYPASS LINE ISOL	2-47W803-1 / A-3	B	ACT	2	6	GA	AO	O	C	C	RPI	2Y		
												FSC	RO		DTJ-06
												STC	RO		DTJ-06
2-FCV-3-355	AUX FEEDWATER PMP 2A-A RECIRC FLOW	2-47W803-2 / E-4	B	ACT	3	2	GL	AO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-FCV-3-359	AUX FEEDWATER PMP 2B-B RECIRC FLOW	2-47W803-2 / E-7	B	ACT	3	2	GL	AO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		
2-CKV-3-508	STEAM GENERATOR 3 MFW CHECK	2-47W803-1 / F-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05
2-CKV-3-509	STEAM GENERATOR 2 MFW CHECK	2-47W803-1 / E-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05
2-CKV-3-510	STEAM GENERATOR 1 MFW CHECK	2-47W803-1 / C-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05
2-CKV-3-511	STEAM GENERATOR 4 MFW CHECK	2-47W803-1 / B-2	C	ACT	2	16	CK	SA	O	C	N/A	BDO	CSD		DTJ-05
												CVC	CSD		DTJ-05
2-CKV-3-638	STEAM GENERATOR 4 MFW BYPASS LINE CHECK	2-47W803-1 / A-3	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-644	STEAM GENERATOR 4 MFW BYPASS LINE CHECK	2-47W803-1 / A-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-645	STEAM GENERATOR 4 MFW BYPASS LINE CHECK	2-47W803-1 / A-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-3-652	STEAM GENERATOR 1 MFW BYPASS LINE CHECK	2-47W803-1 / C-2	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-655	STEAM GENERATOR 1 MFW BYPASS LINE CHECK	2-47W803-1 / C-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-656	STEAM GENERATOR 1 MFW BYPASS LINE CHECK	2-47W803-1 / C-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-669	STEAM GENERATOR 2 MFW BYPASS LINE CHECK	2-47W803-1 / D-2	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-670	STEAM GENERATOR 2 MFW BYPASS LINE CHECK	2-47W803-1 / E-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-678	STEAM GENERATOR 3 MFW BYPASS LINE CHECK	2-47W803-1 / E-2	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-679	STEAM GENERATOR 3 MFW BYPASS LINE CHECK	2-47W803-1 / F-1	C	ACT	2	6	CK	SA	O	C	N/A	CM	CM		
2-CKV-3-805-A	AUX FEEDWATER PMP 2A-A SUCTION CHECK	2-47W803-2 / D-5	C	ACT	3	8	CK	SA	O/C	O/C	N/A	CVC CVO	RO RO		DTJ-07 DTJ-07
2-CKV-3-806-B	AUX FEEDWATER PMP 2B-B SUCTION CHECK	2-47W803-2 / D-7	C	ACT	3	8	CK	SA	O/C	O/C	N/A	CVC CVO	RO RO		DTJ-07 DTJ-07
2-CKV-3-810-S	TD AUX FEEDWATER PUMP SUCTION CHECK	2-47W803-2 / C-4	C	ACT	3	10	CK	SA	O/C	O/C	N/A	CVC CVO	RO RO		DTJ-07 DTJ-07
2-CKV-3-814-A	AUX FEEDWATER PMP 2A-A RECIRC CHECK	2-47W803-2 / E-5	C	ACT	3	1.5	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-3-815-B	AUX FEEDWATER PMP 2B-B RECIRC CHECK	2-47W803-2 / E-6	C	ACT	3	1.5	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
2-CKV-3-818-S	TD AUX FEEDWATER PUMP RECIRC CHECK	2-47W803-2 / B-6	C	ACT	3	1.5	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
2-CKV-3-830-B	AUX FEEDWATER PMP 2B-B SG 3 SUPPLY CHECK	2-47W803-2 / G-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-831-A	AUX FEEDWATER PMP 2A-A SG 2 SUPPLY CHECK	2-47W803-2 / E-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-832-A	AUX FEEDWATER PMP 2A-A SG 1 SUPPLY CHECK	2-47W803-2 / C-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-833-B	AUX FEEDWATER PMP 2B-B SG 4 SUPPLY CHECK	2-47W803-2 / B-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-861-B	AUX FEEDWATER PMP 2B-B SG 3 SUPPLY CHECK	2-47W803-2 / G-1	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-862-A	AUX FEEDWATER PMP 2A-A SG 2 SUPPLY CHECK	2-47W803-2 / E-1	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-864-S	TD AUX FEEDWATER PUMP DISCHARGE CHECK	2-47W803-2 / C-6	C	ACT	3	6	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-07 DTJ-07
2-CKV-3-871-S	TD AUX FEEDWATER PUMP SG 3 SUPPLY CHECK	2-47W803-2 / G-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-872-S	TD AUX FEEDWATER PUMP SG 2 SUPPLY CHECK	2-47W803-2 / E-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-873-S	TD AUX FEEDWATER PUMP SG 1 SUPPLY CHECK	2-47W803-2 / C-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-3-874-S	TD AUX FEEDWATER PUMP SG 4 SUPPLY CHECK	2-47W803-2 / A-2	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-921-B	AUX FEEDWATER PMP 2B-B SG 3 SUPPLY CHECK	2-47W803-2 / G-1	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-CKV-3-922-A	AUX FEEDWATER PMP 2A-A SG 2 SUPPLY CHECK	2-47W803-2 / F-1	C	ACT	2	4	CK	SA	O/C	O/C	N/A	CM	CM		
2-FCV-26-240-A	REACTOR BLDG STANDPIPE ISOL	2-47W850-9 / B-9	A	ACT	2	4	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-26-243-A	REACTOR COOLANT PUMP SPRINKLER HDR ISOL	2-47W850-9 / C-3	A	ACT	2	4	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-CKV-26-1260	REACTOR BLDG HPFP SUPPLY HDR CHECK	2-47W850-9 / B-10	A/C	ACT	2	4	CK	SA	O/C	C	N/A	LTJ CM	AppJ CM		
2-CKV-26-1296	REACTOR COOLANT PUMP SPRINKLER HDR ISOL CHK	2-47W850-9 / C-4	A/C	ACT	2	4	CK	SA	O/C	C	N/A	LTJ CM	AppJ CM		
2-FCV-30-7-A	CNTMT UPPER COMPARTMENT PURGE SUPPLY	2-47W866-1 / C-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-30-8-B	CNTMT UPPER COMPARTMENT PURGE SUPPLY	2-47W866-1 / C-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-9-B	CNTMT UPPER COMPARTMENT PURGE SUPPLY	2-47W866-1 / C-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-10-A	CNTMT UPPER COMPARTMENT PURGE SUPPLY	2-47W866-1 / C-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-14-A	CNTMT LOWER COMPARTMENT PURGE SUPPLY	2-47W866-1 / E-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-15-B	CNTMT LOWER COMPARTMENT PURGE SUPPLY	2-47W866-1 / E-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-30-16-B	CNTMT LOWER COMPARTMENT PURGE SUPPLY	2-47W866-1 / E-1	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-17-A	CNTMT LOWER COMPARTMENT PURGE SUPPLY	2-47W866-1 / E-2	A	ACT	2	24	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-19-B	CNTMT INCORE INSTR ROOM PURGE SUPPLY	2-47W866-1 / G-1	A	ACT	2	12	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-20-A	CNTMT INCORE INSTR ROOM PURGE SUPPLY	2-47W866-1 / G-2	A	ACT	2	12	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-30-37-B	CNTMT LOWER COMPARTMENT PURGE EXH PRESS RELIEF	2-47W866-1 / D-10	A	ACT	2	8	BF	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-30-40-A	CNTMT LOWER COMPARTMENT PURGE EXH PRESS RELIEF	2-47W866-1 / D-9	A	ACT	2	8	BF	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-30-50	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	2-47W866-1 / C-9	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-30-51	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	2-47W866-1 / C-10	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-30-52	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	2-47W866-1 / C-9	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-30-53	CNTMT UPPER COMPARTMENT EXHAUST ISOLATION	2-47W866-1 / C-10	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-30-56	CNTMT LOWER COMPARTMENT EXHAUST ISOLATION	2-47W866-1 / E-9	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-30-57	CNTMT LOWER COMPARTMENT EXHAUST ISOLATION	2-47W866-1 / E-10	A	ACT	2	24	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-30-58	CNTMT INSTRUMENT ROOM EXHAUST ISOLATION	2-47W866-1 / G-9	A	ACT	2	12	BF	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-30-59	CNTMT INSTRUMENT ROOM EXHAUST ISOLATION	2-47W866-1 / G-10	A	ACT	2	12	BF	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-31-305-B	INCORE INSTR RM AHU 2A CWR ISOL	2-47W865-5 / B-6	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-31-306-A	INCORE INSTR RM AHU 2A CWR ISOL	2-47W865-5 / B-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-31-308-A	INCORE INSTR RM AHU 2A CWS ISOL	2-47W865-5 / C-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-31-309-B	INCORE INSTR RM AHU 2A CWS ISOL	2-47W865-7 / C-6	A	ACT	2	4	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-31-326-A	INCORE INSTR RM AHU 2B CWR ISOL	2-47W865-5 / E-6	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-31-327-B	INCORE INSTR RM AHU 2B CWR ISOL	2-47W865-5 / E-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-31-329-B	INCORE INSTR RM AHU 2B CWS ISOL	2-47W865-5 / F-7	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-31-330-A	INCORE INSTR RM AHU 2B CWS ISOL	2-47W865-5 / F-6	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-CKV-31-3378	INCORE INSTR RM AHU 2B CWS LEAK RATE CHECK	2-47W865-5 / F-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-31-3392	INCORE INSTR RM AHU 2B CWR LEAK RATE CHECK	2-47W865-5 / E-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-31-3407	INCORE INSTR RM AHU 2A CWS LEAK RATE CHECK	2-47W865-5 / D-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-31-3421	INCORE INSTR RM AHU 2A CWR LEAK RATE CHECK	2-47W865-5 / B-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-FCV-32-81-A	ESSENT CONTROL AIR TR A CNTMT ISOL	2-47W848-1 / G-9	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ CSD CSD		 DTJ-09 DTJ-09
2-FCV-32-103-B	ESSENT CONTROL AIR TR B CNTMT ISOL	2-47W848-1 / E-9	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ CSD CSD		 DTJ-09 DTJ-09
2-FCV-32-111-B	CONTROL AIR CNTMT ISOL	2-47W848-1 / H-9	A	ACT	2	2	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ CSD CSD		 DTJ-09 DTJ-09
2-BYV-32-318-B	ESSENT CONTROL AIR 2-FCV-32-103 BYPASS	2-47W848-1 / F-9	A	PASS	2	2	GL	M	C	C	N/A	LTJ	AppJ		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-32-323-B	ESSENT CNTL AIR CNTMT CHECK	2-47W848-1 / E-10	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-09
												CVC	CSD		DTJ-09
2-BYV-32-328-A	ESSENT CONTROL AIR 2-FCV-32-81 BYPASS	2-47W848-1 / G-9	A	PASS	2	2	GL	M	C	C	N/A	LTJ	AppJ		
2-CKV-32-333-A	ESSENT CNTL AIR CNTMT CHECK	2-47W848-1 / G-10	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-09
												CVC	CSD		DTJ-09
2-BYV-32-338	CONTROL AIR 2-FCV-32-111 BYPASS	2-47W848-1 / H-9	A	PASS	2	2	GL	M	C	C	N/A	LTJ	AppJ		
2-CKV-32-343	CONTROL AIR CNTMT CHECK	2-47W848-1 / H-10	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-09
												CVC	CSD		DTJ-09
2-ISV-33-732	SERVICE AIR U2 RX BLDG HDR ISOL	2-47W846-2 / F-4	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
2-ISV-33-733	SERVICE AIR U2 RX BLDG HDR ISOL	2-47W846-2 / F-4	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
2-FCV-43-2-B	PRESSURIZER GAS SAMPLE ISOL	2-47W625-1 / D-3	A	ACT	2	0.375	GL	AO	O/C	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-43-3-A	PRESSURIZER GAS SAMPLE ISOL	2-47W625-1 / D-5	A	ACT	2	0.375	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-43-11-B	PRESSURIZER LIQUID SAMPLE ISOL	2-47W625-1 / C-2	A	ACT	2	0.375	GL	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-12-A	PRESSURIZER LIQUID SAMPLE ISOL	2-47W625-1 / C-4	A	ACT	2	0.375	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-22-B	HOT LEGS 1/3 SAMPLE ISOL	2-47W625-1 / F-5	A	ACT	2	0.375	GL	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-23-A	HOT LEGS 1/3 SAMPLE ISOL	2-47W625-1 / D-5	A	ACT	2	0.375	GL	AO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-34-B	ACCUM TANK SAMPLE HDR ISOL	2-47W625-2 / B-2	A	ACT	2	0.375	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-43-35-A	ACCUM TANK SAMPLE HDR ISOL	2-47W625-2 / C-4	A	ACT	2	0.375	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-54D-B	STEAM GEN 1 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / C-7	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-43-55-A	STEAM GEN 1 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / C-6	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-43-56D-B	STEAM GEN 2 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / C-7	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-43-58-A	STEAM GEN 2 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / C-6	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-43-59D-B	STEAM GEN 3 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / D-8	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-43-61-A	STEAM GEN 3 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / D-7	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-43-63D-B	STEAM GEN 4 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / E-9	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-43-64-A	STEAM GEN 4 DRUM/BLDN SAMPLE ISOL	2-47W625-2 / E-8	B	ACT	2	0.375	GL	AO	O	C	C	RPI FSC STC	2Y Q Q		
2-FCV-43-201-A	LOCA H2 CNTMT MONITOR INLET ISOL	2-47W625-11 / H-5	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-202-A	LOCA H2 CNTMT MONITOR OUTLET ISOL	2-47W625-11 / F-5	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-433-A	LOCA H2 CNTMT MONITOR U/S SAMPLE ISOL	2-47W625-11 / H-4	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-43-434-A	LOCA H2 CNTMT MONITOR D/S SAMPLE ISOL	2-47W625-11 / F-4	A	ACT	2	0.375	GL	SO	O/C	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-ISV-52-500	PENETRATION 26B ILRT OUTSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-ISV-52-501	PENETRATION 26A ILRT OUTSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
2-ISV-52-502	PEN 96A INTERGRATED LE AK RATE TEST OUTSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
2-ISV-52-503	PEN 96B INTERGRATED LE AK RATE TEST OUTSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
2-ISV-52-504	PENETRATION 26B ILRT INSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
2-ISV-52-505	PENETRATION 26A ILRT INSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
2-ISV-52-506	PEN 96A INTERGRATED LE AK RATE TEST INSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
2-ISV-52-507	PEN 96B INTERGRATED LE AK RATE TEST INSIDE	47W331-3 / H-1	A	PASS	2	0.75	GA	M	C	C	N/A	LTJ	AppJ		
2-ISV-59-522	UNIT 2 RB DI WATER HEADER ISOLATION	2-47W856-1 / C-3	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
2-ISV-59-698	UNIT 2 RB DI WATER HEADER ISOLATION	2-47W856-1 / C-3	A	PASS	2	2	DIA	M	C	C	N/A	LTJ	AppJ		
2-FCV-61-96-A	GLYCOL COOLED FLOOR SUPPLY HEADER ISOL	2-47W814-2 / E-9	A	ACT	2	2	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-61-97-B	GLYCOL COOLED FLOOR SUPPLY HEADER ISOL	2-47W814-2 / E-9	A	ACT	2	2	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-61-110-A	GLYCOL COOLED FLOOR RETURN HEADER ISOL	2-47W814-2 / G-8	A	ACT	2	2	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-61-122-B	GLYCOL COOLED FLOOR RETURN HEADER ISOL	2-47W814-2 / G-8	A	ACT	2	2	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-61-191-A	GLYCOL SUPPLY TO AHUS CONTAINMENT ISOLATION	2-47W814-2 / B-6	A	ACT	2	4	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-61-192-B	GLYCOL SUPPLY TO AHUS CONTAINMENT ISOLATION	2-47W814-2 / B-7	A	ACT	2	4	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-61-193-A	GLYCOL RETURN AUX BLDG ISOLATION	2-47W814-2 / B-6	A	ACT	2	4	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-61-194-B	GLYCOL RETURN CONTAINMENT ISOLATION	2-47W814-2 / B-7	A	ACT	2	4	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-CKV-61-533	GLYCOL SUPPLY HEADER BYPASS CHECK	2-47W814-2 / B-7	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-61-658	ICE CONDENSER FLOOR DRAIN GATE 1	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-659	ICE CONDENSER FLOOR DRAIN GATE 2	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-660	ICE CONDENSER FLOOR DRAIN GATE 3	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-661	ICE CONDENSER FLOOR DRAIN GATE 4	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-662	ICE CONDENSER FLOOR DRAIN GATE 5	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-663	ICE CONDENSER FLOOR DRAIN GATE 6	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-61-664	ICE CONDENSER FLOOR DRAIN GATE 7	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-665	ICE CONDENSER FLOOR DRAIN GATE 8	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-666	ICE CONDENSER FLOOR DRAIN GATE 9	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-667	ICE CONDENSER FLOOR DRAIN GATE 10	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-668	ICE CONDENSER FLOOR DRAIN GATE 11	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-669	ICE CONDENSER FLOOR DRAIN GATE 12	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-670	ICE CONDENSER FLOOR DRAIN GATE 13	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-671	ICE CONDENSER FLOOR DRAIN GATE 14	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-672	ICE CONDENSER FLOOR DRAIN GATE 15	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-673	ICE CONDENSER FLOOR DRAIN GATE 16	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10
2-CKV-61-674	ICE CONDENSER FLOOR DRAIN GATE 17	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC	RO		DTJ-10
												CVO	RO		DTJ-10

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-61-675	ICE CONDENSER FLOOR DRAIN GATE 18	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-676	ICE CONDENSER FLOOR DRAIN GATE 19	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-677	ICE CONDENSER FLOOR DRAIN GATE 20	2-47W814-2 / D-12	C	ACT	3	12	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-10 DTJ-10
2-CKV-61-680	GLYCOL RETURN HEADER BYPASS CHECK	2-47W814-2 / B-7	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-61-692	GLYCOL COOLED FLOOR SUPPLY BYPASS CHECK	2-47W814-2 / F-9	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-61-745	GLYCOL COOLED FLOOR RETURN BYPASS CHECK	2-47W814-2 / G-8	A/C	ACT	2	0.375	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-FCV-62-61-B	CVCS SEAL WATER RETURN HEADER ISOL	2-47W809-1 / B-6	A	ACT	2	4	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		 DTJ-14
2-FCV-62-63-A	CVCS SEAL WATER RETURN HEADER ISOL	2-47W809-1 / B-7	A	ACT	2	4	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		 DTJ-14
2-FCV-62-69-S	CVCS LETDOWN ISOLATION	2-47W809-1 / A-2	B	ACT	1	3	GL	AO	O/C	C	C	RPI FSC STC	2Y CSD CSD		 DTJ-15 DTJ-15

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-62-70-S	CVCS LETDOWN ISOLATION	2-47W809-1 / A-2	B	ACT	1	3	GL	AO	O/C	C	C	RPI	2Y		
												FSC	CSD		DTJ-15
												STC	CSD		DTJ-15
2-FCV-62-72-A	CVCS LETDOWN ORIFICE A ISOLATION	2-47W809-1 / A-4	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-62-73-A	CVCS LETDOWN ORIFICE B ISOLATION	2-47W809-1 / A-4	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-62-74-A	CVCS LETDOWN ORIFICE C ISOLATION	2-47W809-1 / A-3	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-62-76-A	CVCS LETDOWN ORIFICE ISOLATION	2-47W809-1 / A-5	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	Q		
												STC	Q		
2-FCV-62-77-B	CVCS LP LETDOWN ISOL	2-47W809-1 / A-7	A	ACT	2	2	GL	AO	O	C	C	RPI	2Y		
												LTJ	AppJ		
												FSC	CSD		DTJ-15
												STC	CSD		DTJ-15

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-62-83	RHR LETDOWN FLOW CNTL	2-47W809-1 / A-8	B	PASS	2	2	GL	AO	C	C	C	RPI	2Y		
2-FCV-62-84-A	PZR AUXILARY SPRAY LINE ISOLATION	2-47W809-1 / B-2	B	ACT	1	3	GL	AO	O/C	O/C	C	RPI	2Y		
												FSC	CSD		DTJ-08
												STC	CSD		DTJ-08
												STO	CSD		DTJ-08
2-FCV-62-90-A	CVCS CHARGING HEADER ISOLATION	2-47W809-1 / D-7	B	ACT	2	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-15
2-FCV-62-91-B	CVCS CHARGING HEADER ISOLATION	2-47W809-1 / D-7	B	ACT	2	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-15
2-LCV-62-132-A	VOLUME CONTROL TANK OUTLET ISOLATION	2-47W809-1 / E-9	B	ACT	2	4	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-16
2-LCV-62-133-B	VOLUME CONTROL TANK OUTLET ISOLATION	2-47W809-1 / E-9	B	ACT	2	4	GA	MO	O	C	FAI	RPI	2Y		
												STC	CSD		DTJ-16
2-LCV-62-135-A	RWST CVCS SUPPLY HDR ISOLATION	2-47W809-1 / H-9	B	ACT	2	8	GA	MO	C	O	FAI	RPI	2Y		
												STO	CSD		DTJ-16
2-LCV-62-136-B	RWST CVCS SUPPLY HDR ISOLATION	2-47W809-1 / H-9	B	ACT	2	8	GA	MO	C	O	FAI	RPI	2Y		
												STO	CSD		DTJ-16
2-FCV-62-138-B	EMERGENCY BORATION FLOW CONTROL	2-47W809-2 / A-4	B	ACT	3	3	GL	MO	C	O	FAI	RPI	2Y		
												STO	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-62-504-S	RWST TO CVCS CHG PUMP SUCTION CHECK	2-47W809-1 / G-9	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-RFV-62-505-S	CHARGING PUMP SUCTION HDR RELIEF	2-47W809-1 / G-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-62-523-A	CCP 2A-A MINIFLOW CHECK	2-47W809-1 / G-8	A/C	ACT	2	2	CK	SA	C	O/C	N/A	LT	2Y		
												CVC	Q		
												CVO	Q		
2-CKV-62-525-A	CCP 2A-A DISCHARGE CHECK	2-47W809-1 / G-8	A/C	ACT	2	4	CK	SA	O	O/C	N/A	LT	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-62-530-B	CCP 2B-B MINIFLOW CHECK	2-47W809-1 / F-8	A/C	ACT	2	2	CK	SA	C	O/C	N/A	LT	2Y		
												CVC	Q		
												CVO	Q		
2-CKV-62-532-B	CCP 2B-B DISCHARGE CHECK	2-47W809-1 / F-8	A/C	ACT	2	4	CK	SA	O	O/C	N/A	LT	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-62-560-S	RCP 1 SEAL WATER INJECTION CHK	2-47W809-1 / F-6	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-561-S	RCP 2 SEAL WATER INJECTION CHK	2-47W809-1 / F-6	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-562-S	RCP 3 SEAL WATER INJECTION CHK	2-47W809-1 / H-5	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-563-S	RCP 4 SEAL WATER INJECTION CHK	2-47W809-1 / H-5	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-576-S	RCP 1 SEAL WATER INJECTION CHECK	2-47W809-1 / E-4	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-577-S	RCP 2 SEAL WATER INJECTION CHECK	2-47W809-1 / E-2	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-62-578-S	RCP 3 SEAL WATER INJECTION CHECK	2-47W809-1 / G-2	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-579-S	RCP 4 SEAL WATER INJECTION CHECK	2-47W809-1 / G-4	C	ACT	1	2	CK	SA	O	C	N/A	CM	CM		
2-RFV-62-636-S	CVCS SEAL WTR RETURN HEADER RELIEF	2-47W809-1 / B-6	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-62-638-S	CVCS NORM CHARGING CHECK	2-47W809-1 / A-1	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-639-S	CVCS SEAL WTR 2-FCV-62-61 EQL CHECK	2-47W809-1 / C-6	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-62-640-S	CVCS ALT CHARGING CHECK	2-47W809-1 / A-1	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
2-RFV-62-649-S	CVCS SEAL WATER HX RELIEF	2-47W809-1 / C-8	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-62-659-S	CVCS NORM CHARGING CHECK	2-47W809-1 / A-2	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-660-S	CVCS ALT CHARGING CHECK	2-47W809-1 / A-2	C	ACT	1	3	CK	SA	O	C	N/A	CM	CM		
2-CKV-62-661-S	CVCS CHARGING TO RCS SPRAY CHECK	2-47W809-1 / B-2	C	ACT	1	3	CK	SA	O/C	C	N/A	CM	CM		
2-RFV-62-662-S	CVCS LETDOWN HEADER RELIEF	2-47W809-1 / A-3	A/C	ACT	2	2	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		
2-RFV-62-675-S	CVCS LETDOWN RELIEF	2-47W809-1 / B-9	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-62-930	EMERGENCY BORATION CHECK	2-47W809-2 / B-4	C	ACT	3	3	CK	SA	C	O	N/A	BDC CVO	RO RO		DTJ-13 DTJ-13
2-RFV-62-955	HOLDUP TANK B PRESS RELIEF	1-47W809-3 / C-7	C	ACT	3	3	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-62-1052-A	BA XFER PUMP 2A-A DISCH CHECK	1-47W809-5 / F-5	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
2-CKV-62-1052-B	BA XFER PUMP 2B-B DISCH CHECK	1-47W809-5 / F-4	C	ACT	3	2	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-RFV-62-1079	HOLDUP TANK B VACUUM RELIEF	1-47W809-3 / C-7	C	ACT	3	4	RV	SA	C	O/C	N/A	RV	10Y		DTJ-29
2-RFV-62-1221	CCP 2A-A SUCTION RELIEF	2-47W809-1 / G-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-62-1222	CCP 2B-B SUCTION RELIEF	2-47W809-1 / G-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-FCV-62-1228-A	CCP SUCTION TO VCT VENT HDR ISOL	2-47W809-1 / C-10	B	ACT	2	1	GL	AO	O	C	C	RPI FSC STC	2Y CSD CSD		 DTJ-16 DTJ-16
2-FCV-62-1229-B	CCP SUCTION TO VCT VENT HDR ISOL	2-47W809-1 / C-10	B	ACT	2	1	GL	AO	O	C	C	RPI FSC STC	2Y CSD CSD		 DTJ-16 DTJ-16
2-FCV-63-1-A	RWST TO RHR SUCTION	2-47W811-1 / E-10	B	ACT	2	14	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-19
2-FCV-63-3-A	SI PUMP MINI FLOW RECIRC HDR TO RWST ISOL	2-47W811-1 / E-7	B	ACT	2	2	GL	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-20
2-FCV-63-4-B	SI PUMP 2A-A MINI FLOW RECIRC TO RWST ISOL	2-47W811-1 / E-8	B	ACT	2	2	GL	MO	O	C	FAI	RPI STC	2Y Q		
2-FCV-63-5-B	RWST TO SI PUMP SUCTION ISOL	2-47W811-1 / D-9	B	ACT	2	6	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-19
2-FCV-63-6-B	RHR HX A OUTLET TO SI PUMP SUCTION	2-47W811-1 / F-9	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-63-7-A	RHR HX 2A-A OUTLET TO SI PUMP 2A-A SUCT	2-47W811-1 / F-9	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-63-8-A	RHR PMP 2A-A TO CHG PMP & SIP 2A-A SUCT ISOL	2-47W811-1 / G-9	B	ACT	2	8	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-21
2-FCV-63-11-B	RHR HX 2B-B OUTLET TO SIP 2B-B SUCT ISOL	2-47W811-1 / F-9	B	ACT	2	8	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-21
2-FCV-63-22-B	SI PUMPS TO COLD LEG INJECTION	2-47W811-1 / E-6	B	ACT	2	4	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-22
2-FCV-63-23-B	COLD LEG ACCUMULATOR FILL FROM SIP 2A-A ISV	2-47W811-1 / E-6	A	ACT	2	1	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-63-25-B	SIS BORON INJ TANK OUTLET ISOLATION	2-47W811-1 / B-7	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-23
2-FCV-63-26-A	SIS BORON INJ TANK OUTLET ISOLATION	2-47W811-1 / B-7	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-23
2-RFV-63-28	PENET X-30 PRESSURE RELIEF	2-47W811-1 / D-6	A/C	ACT	2	0.75	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-63-47-A	SAFETY INJ PUMP 2A-A SUCTION ISOLATION	2-47W811-1 / E-9	B	ACT	2	6	GA	MO	O	C	FAI	RPI STC	2Y Q		
2-FCV-63-48-B	SAFETY INJ PUMP 2B-B SUCTION ISOLATION	2-47W811-1 / E-9	B	ACT	2	6	GA	MO	O	C	FAI	RPI STC	2Y Q		
2-FCV-63-63	SIS COLD LEG ACCUM 4 N2 MAKEUP	2-47W811-1 / A-5	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-64-A	SIS ACCUM N2 HDR INLET VLV	2-47W830-6 / B-6	A	ACT	2	1	GA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-63-67-B	SIS COLD LEG ACCUM 4 OUTLET ISOLATION	2-47W811-1 / B-5	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		
2-FCV-63-70	SIS COLD LEG ACCUM 4 MAKEUP	2-47W811-1 / B-6	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-71-A	SIS CHECK VLV TEST LINE HOLDUP TANK ISOL	2-47W811-1 / D-5	A	ACT	2	0.75	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-63-72-A	CONTAINMENT SUMP TO RHR PUMP 2A-A ISOL	2-47W811-1 / H-7	B	ACT	2	18	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-24
2-FCV-63-73-B	CONTAINMENT SUMP TO RHR PUMP 2B-B ISOL	2-47W811-1 / G-7	B	ACT	2	18	GA	MO	C	O	FAI	RPI STO	2Y RO		DTJ-24
2-FCV-63-77	SIS COLD LEG ACCUM 3 MAKEUP	2-47W811-1 / B-4	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-80-A	SIS COLD LEG ACCUM 3 OUTLET ISOLATION	2-47W811-1 / B-4	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		
2-FCV-63-84-B	SIS CHECK VLV LEAK TEST HOLDUP TANK ISOL	2-47W811-1 / D-6	A	ACT	2	0.75	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-63-87	SIS COLD LEG ACCUM 3 N2 MAKEUP	2-47W811-1 / A-4	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-93-A	RHR TO COLD LEG 2 & 3 INJECTION ISOLATION	2-47W811-1 / G-6	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-25

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-63-94-B	RHR TO COLD LEG 1 & 4 INJECTION ISOLATION	2-47W811-1 / G-6	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-25
2-FCV-63-95	SIS COLD LEG ACCUM 2 MAKEUP	2-47W811-1 / B-3	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-98-B	SIS COLD LEG ACCUM 2 OUTLET ISOLATION	2-47W811-1 / B-3	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		
2-FCV-63-107	SIS COLD LEG ACCUM 2 N2 MAKEUP	2-47W811-1 / A-2	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-115	SIS COLD LEG ACCUM 1 MAKEUP	2-47W811-1 / B-2	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-118-A	SIS COLD LEG ACCUM 1 OUTLET ISOLATION	2-47W811-1 / B-1	B	PASS	1	10	GA	MO	O	O	FAI	RPI	2Y		
2-FCV-63-127	SIS COLD LEG ACCUM 1 N2 MAKEUP	2-47W811-1 / A-1	B	ACT	2	1	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-FCV-63-152-A	SIP 2A-A COLD LEG INJ FLOW CNTL	2-47W811-1 / E-7	B	ACT	2	4	GA	MO	O	C	FAI	RPI STC	2Y Q		
2-FCV-63-153-B	SIP 2B-B COLD LEG INJ FLOW CNTL	2-47W811-1 / E-7	B	ACT	2	4	GA	MO	O	C	FAI	RPI STC	2Y Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-63-156-A	SI PUMP 2A-A HOT LEG 1 & 3 INJECTION	2-47W811-1 / F-6	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-63-157-B	SI PUMP 2B-B HOT LEG 2 & 4 INJECTION	2-47W811-1 / D-6	B	ACT	2	4	GA	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-63-172-B	RHR TO HOT LEG 1 & 3 INJECTION ISOLATION	2-47W811-1 / F-6	B	ACT	2	12	GA	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-25
2-FCV-63-175-B	SI PUMP 2B-B MINI FLOW RECIRC TO RWST	2-47W811-1 / E-8	B	ACT	2	2	GL	MO	O	C	FAI	RPI STC	2Y Q		
2-FCV-63-177	RHR HX 2A-A OUTLET TO SIP 2A-A SUCT ISOL	2-47W811-1 / F-10	B	PASS	2	4	GA	MO	O	O	FAI	RPI	2Y		
2-FCV-63-185	RHR SUPPLY 2-FCV-74-2 LEAK TEST LINE ISOL	2-47W811-1 / F-10	B	ACT	2	0.75	GL	AO	O/C	C	C	RPI FSC STC	2Y Q Q		
2-CKV-63-502-S	RWST TO RHR SUCTION CHECK	2-47W811-1 / F-9	C	ACT	2	12	CK	SA	C	O	N/A	CVC CVO	RO RO		DTJ-18 DTJ-18
2-CKV-63-510-S	RWST TO SAFETY INJ PUMP SUCTION CHECK	2-47W811-1 / D-9	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-11 DTJ-11
2-RFV-63-511-S	SAFETY INJECTION PUMP 2A-A RELIEF	2-47W811-1 / E-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-63-524-A	SAFETY INJ PUMP 2A-A DISCHARGE CHECK	2-47W811-1 / E-8	A/C	ACT	2	4	CK	SA	C	O/C	N/A	LT	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-526-B	SAFETY INJ PUMP 2B-B DISCHARGE CHECK	2-47W811-1 / D-8	A/C	ACT	2	4	CK	SA	C	O/C	N/A	LT	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-528-A	SI PUMP 2A-A MINI FLOW RECIRC CHECK	2-47W811-1 / E-8	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LT	2Y		
												CVC	Q		
												CVO	Q		
2-CKV-63-530-B	SI PUMP 2B-B MINI FLOW RECIRC CHECK	2-47W811-1 / D-8	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LT	2Y		
												CVC	Q		
												CVO	Q		
2-RFV-63-534-A	SI PUMP 2A-A HOT LEG INJ LINE DISCH RELIEF	2-47W811-1 / E-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-63-535-S	SI PUMP COLD LEG INJ LINE DISCH RELIEF	2-47W811-1 / E-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-63-536-B	SI PUMP 2B-B HOT LEG INJ LINE DISCH RELIEF	2-47W811-1 / D-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-63-543-A	HOT LEG 1 SAFETY INJ CHECK	2-47W811-1 / F-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-63-545-A	HOT LEG 3 SAFETY INJ CHECK	2-47W811-1 / F-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-547-B	HOT LEG 2 SAFETY INJ CHECK	2-47W811-1 / E-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-549-B	HOT LEG 4 SAFETY INJ CHECK	2-47W811-1 / E-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-551-S	COLD LEG 1 SAFETY INJ CHECK	2-47W811-1 / H-1	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-553-S	COLD LEG 2 SAFETY INJ CHECK	2-47W811-1 / H-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-555-S	COLD LEG 3 SAFETY INJ CHECK	2-47W811-1 / G-3	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-557-S	COLD LEG 4 SAFETY INJ CHECK	2-47W811-1 / G-2	A/C	ACT	1	2	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-63-558-B	HOT LEG 4 SAFETY INJ CHECK	2-47W811-1 / E-2	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-559-B	HOT LEG 2 SAFETY INJ CHECK	2-47W811-1 / E-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-560-S	COLD LEG 1 INJ HEADER CHECK	2-47W811-1 / E-1	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-CKV-63-561-S	COLD LEG 2 INJ HEADER CHECK	2-47W811-1 / D-1	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-CKV-63-562-S	COLD LEG 3 INJ HEADER CHECK	2-47W811-1 / E-2	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-CKV-63-563-S	COLD LEG 4 INJ HEADER CHECK	2-47W811-1 / F-2	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-RFV-63-577-S	SIS BORON INJECTION TNK OUTLET RELIEF	2-47W811-1 / A-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-63-581-S	BORON INJ LINE CHECK	2-47W811-1 / C-6	A/C	ACT	1	3	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-586-S	COLD LEG 1 BORON INJ CHECK	2-47W811-1 / E-1	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-63-587-S	COLD LEG 2 BORON INJ CHECK	2-47W811-1 / D-2	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-588-S	COLD LEG 3 BORON INJ CHECK	2-47W811-1 / E-2	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-CKV-63-589-S	COLD LEG 4 BORON INJ CHECK	2-47W811-1 / F-2	A/C	ACT	1	1.5	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-11
												CVO	RO		DTJ-11
2-RFV-63-602-S	SIS COLD LEG ACCUM 1 RELIEF	2-47W811-1 / A-2	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-63-603-S	SIS COLD LEG ACCUM 2 RELIEF	2-47W811-1 / A-3	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-63-604-S	SIS COLD LEG ACCUM 3 RELIEF	2-47W811-1 / A-4	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-63-605-S	SIS COLD LEG ACCUM 4 RELIEF	2-47W811-1 / A-6	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-63-622-S	SIS COLD LEG ACCUM 1 OUTLET CHECK	2-47W811-1 / D-1	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-CKV-63-623-S	SIS COLD LEG ACCUM 2 OUTLET CHECK	2-47W811-1 / D-2	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-CKV-63-624-S	SIS COLD LEG ACCUM 3 OUTLET CHECK	2-47W811-1 / D-3	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-CKV-63-625-S	SIS COLD LEG ACCUM 4 OUTLET CHECK	2-47W811-1 / D-3	A/C	ACT	1	10	CK	SA	C	O/C	N/A	LTP	2Y		
												CM	CM		
2-RFV-63-626-A	RHR TO COLD LEG 2 & 3 INJ LINE RELIEF	2-47W811-1 / G-7	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-RFV-63-627-B	RHR TO COLD LEG 1 & 4 INJ LINE RELIEF	2-47W811-1 / F-7	C	ACT	2	2	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-63-632-A	COLD LEG 2 RHR INJ LINE CHECK	2-47W811-1 / G-2	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
2-CKV-63-633-B	COLD LEG 1 RHR INJ LINE CHECK	2-47W811-1 / G-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
2-CKV-63-634-A	COLD LEG 3 RHR INJ LINE CHECK	2-47W811-1 / G-3	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
2-CKV-63-635-B	COLD LEG 4 RHR INJ LINE CHECK	2-47W811-1 / G-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
2-RFV-63-637-S	RHR TO HOT LEG 1 & 3 INJ LINE RELIEF	2-47W811-1 / F-7	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-63-640-S	HOT LEG 1 RHR INJ LINE CHECK	2-47W811-1 / G-3	A/C	ACT	1	8	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18
2-CKV-63-641-S	2-CKV-63-641 HOT LEG 1 INJ HEADER CHECK	2-47W811-1 / F-1	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP	2Y		
												CVC	RO		DTJ-18
												CVO	RO		DTJ-18

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-63-643-S	HOT LEG 3 RHR INJ LINE CHECK	2-47W811-1 / F-3	A/C	ACT	1	8	CK	SA	C	O/C	N/A	LTP CVC CVO	2Y RO RO		 DTJ-18 DTJ-18
2-CKV-63-644-S	HOT LEG 3 INJ HEADER CHECK	2-47W811-1 / D-2	A/C	ACT	1	6	CK	SA	C	O/C	N/A	LTP CVC CVO	2Y RO RO		 DTJ-18 DTJ-18
2-CKV-63-725	SIS RELIEF VALVE DISCHARGE HEADER CHECK	2-47W811-1 / E-7	C	ACT	2	2	CK	SA	C	O/C	N/A	CM	CM		
2-RFV-63-835	RHR HX 1B-B OUTLET TO SI PUMP SUCTION RELIEF	2-47W811-1 / E-10	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-63-868	2-CKV-63-868 CONTAINMENT N2 HEADER CHECK	2-47W830-6 / B-7	A/C	ACT	2	1	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ CSD CSD		 DTJ-28 DTJ-28
2-FCV-67-9A-A	ERCW STRAINER 2A-A BACKWASH	1-47W845-1 / G-9	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
2-FCV-67-9B-A	ERCW STRAINER 2A-A FLUSH	1-47W845-1 / F-9	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
2-FCV-67-10A-B	ERCW STRAINER 2B-B BACKWASH	1-47W845-1 / G-3	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
2-FCV-67-10B-B	ERCW STRAINER 2B-B FLUSH	1-47W845-1 / H-3	B	ACT	3	4	BA	MO	C	O	FAI	STO	Q		
2-FCV-67-65-B	DG HX 2B1/2B2 ERCW SUP HDR 2A ISOL	1-47W845-1 / C-3	B	PASS	3	8	BF	MO	C	C	FAI	RPI	2Y		
2-FCV-67-66-A	DG HX 2A1/2A2 ERCW SUP HDR 1A ISOL	1-47W845-1 / C-9	B	ACT	3	8	BF	MO	C	O	FAI	RPI STO	2Y Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-67-B	DG HX 2B1/2B2 ERCW SUP HDR 1B ISOL	1-47W845-1 / C-4	B	ACT	3	8	BF	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-67-68-A	DG HX 2A1/2A2 ERCW SUP HDR 2B ISOL	1-47W845-1 / C-8	B	PASS	3	8	BF	MO	C	C	FAI	RPI	2Y		
2-FCV-67-83-B	LOWER CNTMT CLR HDR A ERCW SUP ISOL	2-47W845-3 / H-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-87-A	LOWER CNTMT CLR HDR A ERCW RET ISOL	2-47W845-3 / H-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-88-B	LOWER CNTMT CLR HDR A ERCW RET ISOL	2-47W845-3 / H-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-89-A	LOWER CNTMT CLR HDR A ERCW SUP ISOL	2-47W845-3 / H-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-91-B	LOWER CNTMT CLR HDR C ERCW SUP ISOL	2-47W845-3 / G-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-95-A	LOWER CNTMT CLR HDR C ERCW RET ISOL	2-47W845-3 / F-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-96-B	LOWER CNTMT CLR HDR C ERCW RET ISOL	2-47W845-3 / F-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-97-A	LOWER CNTMT CLR HDR C ERCW SUP ISOL	2-47W845-3 / G-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-99-A	LOWER CNTMT CLR HDR B ERCW SUP ISOL	2-47W845-3 / F-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-103-B	LOWER CNTMT CLR HDR B ERCW RET ISOL	2-47W845-3 / E-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-104-A	LOWER CNTMT CLR HDR B ERCW RET ISOL	2-47W845-3 / E-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-105-B	LOWER CNTMT CLR HDR B ERCW SUP ISOL	2-47W845-3 / F-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-107-A	LOWER CNTMT CLR HDR D ERCW SUP ISOL	2-47W845-3 / E-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-111-B	LOWER CNTMT CLR HDR D ERCW RET ISOL	2-47W845-3 / D-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-112-A	LOWER CNTMT CLR HDR D ERCW RET ISOL	2-47W845-3 / D-8	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-113-B	LOWER CNTMT CLR HDR D ERCW SUP ISOL	2-47W845-3 / E-7	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-67-123-B	CNTMT SPRAY HX 2B-B ERCW SUPPLY	2-47W845-2 / D-2	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12
2-FCV-67-124-B	CNTMT SPRAY HX 2B-B ERCW RETURN	2-47W845-2 / E-3	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-125-A	CNTMT SPRAY HX 2A-A ERCW SUPPLY	2-47W845-2 / C-3	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12
2-FCV-67-126-A	CNTMT SPRAY HX 2A-A ERCW RETURN	2-47W845-2 / D-4	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y CSD		DTJ-12
2-FCV-67-130-A	UPPER CNTMT VENT CLR 1A ERCW SUP HDR ISOL	2-47W845-3 / C-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-131-B	UPPER CNTMT VENT CLR 1A ERCW RET HDR ISOL	2-47W845-3 / D-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-133-A	UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL	2-47W845-3 / B-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-134-B	UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL	2-47W845-3 / C-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-138-B	UPPER CNTMT VENT CLR 1B ERCW SUP HDR ISOL	2-47W845-3 / B-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-139-A	UPPER CNTMT VENT CLR 1B ERCW RET HDR ISOL	2-47W845-3 / B-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-141-B	UPPER CNTMT VENT CLR 1D ERCW SUP HDR ISOL	2-47W845-3 / A-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-142-A	UPPER CNTMT VENT CLR 1D ERCW RET HDR ISOL	2-47W845-3 / A-8	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-143-A	CCS HX B OUTLET ERCW FLOW CNTL BYP	1-47W845-2 / B-4	B	ACT	3	12	GL	MO	O/C	O/C	FAI	RPI STC STO	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-146-A	CCS HX B OUTLET ERCW FLOW CNTL	1-47W845-2 / C-4	B	ACT	3	24	BF	MO	O/C	O/C	FAI	RPI STC STO	2Y Q Q		
2-FCV-67-176	SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL	2-47W845-7 / D-5	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-182	SIP ROOM COOLER 2B-B ERCW SUP FLOW CNTL	2-47W845-7 / D-7	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-184	CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL	2-47W845-7 / E-5	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-186	CSP ROOM COOLER 2B-B ERCW SUP FLOW CNTL	2-47W845-7 / E-7	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-217	BA XFER/AFW PMP SPACE CLR 2A-A ERCW SUPPLY	1-47W845-7 / C-4	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-219	BA XFER/AFW PMP SPACE CLR 2B-B ERCW FLOW CNT	1-47W845-7 / C-6	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-295-A	UPPER CNTMT VENT CLR 2A ERCW RET ISOL	2-47W845-3 / D-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-296-A	UPPER CNTMT VENT CLR 2C ERCW RET ISOL	2-47W845-3 / C-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-297-B	UPPER CNTMT VENT CLR 2B ERCW RET ISOL	2-47W845-3 / B-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-298-B	UPPER CNTMT VENT CLR 2D ERCW RET ISOL	2-47W845-3 / A-7	A	ACT	2	2	PLG	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-67-336	EGTS ROOM COOLER 2A-A ERCW SUP FLOW CNTL	1-47W845-7 / A-4	B	ACT	3	1	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-338	EGTS ROOM COOLER 2B-B ERCW SUP FLOW CNTL	1-47W845-7 / A-6	B	ACT	3	1	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-342	PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL	2-47W845-7 / H-5	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-344	PIPE CHASE COOLER 2B-B ERCW SUP FLOW CNTL	2-47W845-7 / H-7	B	ACT	3	2	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-346	PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL	2-47W845-7 / F-5	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-348	PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL	2-47W845-7 / F-7	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-67-350	PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL	2-47W845-7 / G-5	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-352	PENT ROOM COOLER 2B-B ERCW SUP FLOW CNTL	2-47W845-7 / G-7	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-354	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	1-47W845-7 / F-4	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-FCV-67-356	PENT ROOM COOLER 1B-B ERCW SUP FLOW CNTL	1-47W845-7 / F-6	B	ACT	3	1.5	GL	AO	C	O	O	RPI FSO STO	2Y Q Q		
2-CKV-67-508A-A	DG HX 2A1/2A2 ERCW SUP HDR 1A CHECK	1-47W845-1 / C-5	C	ACT	3	8	CK	SA	C	O/C	N/A	CM	CM		
2-CKV-67-508B-B	DG HX 2B1/2B2 ERCW SUP HDR 1B CHECK	1-47W845-1 / C-10	C	ACT	3	8	CK	SA	C	O/C	N/A	CM	CM		
2-RFV-67-509A-A	DG HX 2A2 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-509B-B	DG HX 2B2 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-67-513A-A	DG HX 2A1/2A2 ERCW SUP HDR 2B CHECK	1-47W845-1 / C-8	C	PASS	3	8	CK	SA	C	C	N/A	NTR	NTR		
2-CKV-67-513B-B	DG HX 2B1/2B2 ERCW SUP HDR 2A CHECK	1-47W845-1 / C-4	C	PASS	3	8	CK	SA	C	C	N/A	NTR	NTR		
2-RFV-67-514A-A	DG HX 2A1 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-514B-B	DG HX 2B1 ERCW RELIEF	1-47W845-1 / B-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-ISV-67-523B-B	LOWER CNTMT VENT CLR 2B & 2D ERCW SUP ISOL	2-47W845-2 / F-2	B	ACT	3	10	BF	M	O	C	N/A	MS	2Y		
2-RFV-67-539A-A	CS HX 2A ERCW RET HDR RELIEF	2-47W845-2 / D-3	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-539B-B	CS HX 2B ERCW RET HDR RELIEF	2-47W845-2 / D-3	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-550-A	CCX HX B ERCW RELIEF	1-47W845-2 / B-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-566A-A	RCP/CRD VENT CLR A ERCW SUP HDR RELIEF	2-47W845-3 / H-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-566B-B	RCP/CRD VENT CLR B ERCW SUP HDR RELIEF	2-47W845-3 / F-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-566C-A	RCP/CRD VENT CLR C ERCW SUP HDR RELIEF	2-47W845-3 / G-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-566D-B	RCP/CRD VENT CLR D ERCW SUP HDR RELIEF	2-47W845-3 / E-5	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-573A-A	LOWER CNTMT CLR HDR A ERCW RET RELIEF	2-47W845-3 / G-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-573B-B	LOWER CNTMT CLR HDR B ERCW RET RELIEF	2-47W845-3 / E-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-573C-A	LOWER CNTMT CLR HDR C ERCW RET RELIEF	2-47W845-3 / F-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-573D-B	LOWER CNTMT CLR HDR D ERCW RET RELIEF	2-47W845-3 / D-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-CKV-67-575A-A	2-FCV-67-87 BYPASS CHECK	2-47W845-3 / H-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-575B-B	2-FCV-67-103 BYPASS CHECK	2-47W845-3 / E-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-67-575C-A	2-FCV-67-95 BYPASS CHECK	2-47W845-3 / G-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-575D-B	2-FCV-67-111 BYPASS CHECK	2-47W845-3 / D-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-580A-A	UPPER CNTMT VENT CLR 2A ERCW SUP HDR CHECK	2-47W845-3 / C-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		
2-CKV-67-580B-B	UPPER CNTMT VENT CLR 2B ERCW SUP HDR CHECK	2-47W845-3 / B-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		
2-CKV-67-580C-A	UPPER CNTMT VENT CLR 2C ERCW SUP HDR CHECK	2-47W845-3 / B-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		
2-CKV-67-580D-B	UPPER CNTMT VENT CLR 2D ERCW SUP HDR CHECK	2-47W845-3 / A-7	A/C	ACT	2	2	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-RFV-67-582A-A	UPPER CNTMT VENT CLR 2A ERCW SUP HDR RELIEF	2-47W845-3 / C-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-582B-B	UPPER CNTMT VENT CLR 2B ERCW SUP HDR RELIEF	2-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-582C-A	UPPER CNTMT VENT CLR 2C ERCW SUP HDR RELIEF	2-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-582D-B	UPPER CNTMT VENT CLR 2D ERCW SUP HDR RELIEF	2-47W845-3 / A-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-CKV-67-585A-A	2-FCV-67-295 BYPASS CHECK	2-47W845-3 / D-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-585B-B	2-FCV-67-297 BYPASS CHECK	2-47W845-3 / B-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-585C-A	2-FCV-67-296 BYPASS CHECK	2-47W845-3 / C-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-585D-B	2-FCV-67-298 BYPASS CHECK	2-47W845-3 / B-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-935B-B	ERCW SCRN WASH PMP 2B-B DISCH CHECK	1-47W845-1 / H-6	C	ACT	3	3	CK	SA	C	O	N/A	CM	CM		
2-RFV-67-1020A-A	INSTR RM WATER CLR 2A ERCW RELIEF	2-47W845-2 / F-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1020B-B	INSTR RM WATER CLR 2B ERCW RELIEF	2-47W845-2 / E-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1022A-A	CRD VENT COOLER 2A-A ERCW RELIEF	2-47W845-3 / H-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1022B-B	CRD VENT COOLER 2B-B ERCW RELIEF	2-47W845-3 / F-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1022C-A	CRD VENT COOLER 2C-A ERCW RELIEF	2-47W845-3 / G-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1022D-B	CRD VENT COOLER 2D-B ERCW RELIEF	2-47W845-3 / D-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-RFV-67-1024A-A	RCP MTR CLR 1 ERCW RELIEF	2-47W845-3 / H-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1024B-B	RCP MTR CLR 2 ERCW RELIEF	2-47W845-3 / F-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1024C-A	RCP MTR CLR 3 ERCW RELIEF	2-47W845-3 / G-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1024D-B	RCP MTR CLR 4 ERCW RELIEF	2-47W845-3 / D-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1025A-A	LWR CNTMT VENT CLR 2A-A ERCW RELIEF	2-47W845-3 / H-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1025B-B	LWR CNTMT VENT CLR 2B-B ERCW RELIEF	2-47W845-3 / F-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1025C-A	LWR CNTMT VENT CLR 2C-A ERCW RELIEF	2-47W845-3 / G-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1025D-B	LWR CNTMT VENT CLR 2D-B ERCW RELIEF	2-47W845-3 / D-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1026A-A	UPPER CNTMT VENT CLR 2A ERCW RELIEF	2-47W845-3 / C-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1026B-B	UPPER CNTMT VENT CLR 2B ERCW RELIEF	2-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1026C-A	UPPER CNTMT VENT CLR 2C ERCW RELIEF	2-47W845-3 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1026D-B	UPPER CNTMT VENT CLR 2D ERCW RELIEF	2-47W845-3 / A-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1029A-A	CVCS CCP ROOM CLR 2A -A ERCW RELIEF	2-47W845-7 / C-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1029B-B	CVCS CCP ROOM CLR 2B -B ERCW RELIEF	2-47W845-7 / C-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1031A-A	SIS PMP RM CLR 2A-A ERCW RELIEF	2-47W845-7 / D-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1031B-B	SIS PMP RM CLR 2B-B ERCW RELIEF	2-47W845-7 / D-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1032A-A	CS PMP RM CLR 2A-A ERCW RELIEF	2-47W845-7 / D-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1032B-B	CS PMP RM CLR 2B-B ERCW RELIEF	2-47W845-7 / D-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1033A-A	RHR PMP RM CLR 2A-A ERCW RELIEF	2-47W845-7 / E-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1033B-B	RHR PMP RM CLR 2B-B ERCW RELIEF	2-47W845-7 / E-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-RFV-67-1034A-A	PENT ROOM CLR 2A-A ERCW RELIEF	2-47W845-7 / F-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1034B-B	PENT ROOM CLR 2B-B ERCW RELIEF	2-47W845-7 / F-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1035A-A	PENT ROOM CLR 2A-A ERCW RELIEF	2-47W845-7 / G-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1035B-B	PENT ROOM CLR 2B-B ERCW RELIEF	2-47W845-7 / F-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1037A-A	PENT ROOM COOLER 2A-A ERCW RELIEF	1-47W845-7 / G-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1037B-B	PENT ROOM COOLER 2B-B ERCW RELIEF	1-47W845-7 / G-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1038A-A	PIPE CHASE CLR 2A-A ERCW RELIEF	2-47W845-7 / H-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1038B-B	PIPE CHASE CLR 2B-B ERCW RELIEF	2-47W845-7 / H-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1040A-A	BA XFER/AFW PMP SPACE CLR 2A-A ERCW RELIEF	1-47W845-7 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1040B-B	BA XFER/AFW PMP SPACE CLR 2B-B ERCW RELIEF	1-47W845-7 / B-7	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1041A-A	EGTS ROOM COOLER 2A-A ERCW RELIEF	1-47W845-7 / A-2	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1041B-B	EGTS ROOM COOLER 2B-B ERCW RELIEF	1-47W845-7 / A-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1043A-A	ERCW STRAINER 2A-A RELIEF	1-47W845-1 / F-9	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1043B-B	ERCW STRAINER 2B-B RELIEF	1-47W845-1 / G-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-67-1044-B	SD BD ROOM A/C CHLR B -B ERCW RELIEF	1-47W845-2 / B-3	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-CKV-67-1054A-A	2-FCV-67-89 BYPASS CHECK	2-47W845-3 / H-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-1054B-B	2-FCV-67-105 BYPASS CHECK	2-47W845-3 / E-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-67-1054C-A	2-FCV-67-97 BYPASS CHECK	2-47W845-3 / G-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-CKV-67-1054D-B	2-FCV-67-113 BYPASS CHECK	2-47W845-3 / D-7	A/C	ACT	2	0.5	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-FCV-68-22	REACTOR VESSEL FLANGE LEAKOFF	2-47W813-1 / B-8	B	PASS	2	0.375	GL	AO	O	O	O	RPI	2Y		
2-FCV-68-305-A	PRESSURIZER RELIEF TANK NITROGEN SUP FLOW CNTL	2-47W830-6 / G-7	A	ACT	2	0.75	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-68-307-A	PRESSURIZER RELIEF TANK GAS ANALYZER SUPPLY	2-47W625-8 / B-7	A	ACT	2	0.375	GA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-68-308-B	PRESSURIZER RELIEF TANK GAS ANALYZER SUPPLY	2-47W625-8 / B-5	A	ACT	2	0.375	GA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-68-332-B	PRESSURIZER PORV BLOCK VALVE	2-47W813-1 / B-2	B	ACT	1	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
2-FCV-68-333-A	PRESSURIZER PORV BLOCK VALVE	2-47W813-1 / B-2	B	ACT	1	3	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
2-PCV-68-334-B	PRESSURIZER PORV	2-47W813-1 / B-1	B	ACT	1	3	GL	SO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
2-PCV-68-340A-A	PRESSURIZER PORV	2-47W813-1 / B-1	B	ACT	1	3	GL	SO	C	O/C	C	RPI	2Y		
												FSC	RO		
												STC	RO		
												STO	RO		
2-FSV-68-394-A	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-7	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												FSC	CSD		DTJ-26
												STC	CSD		DTJ-26
												STO	CSD		DTJ-26
2-FSV-68-395-B	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-7	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												FSC	CSD		DTJ-26
												STC	CSD		DTJ-26
												STO	CSD		DTJ-26

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FSV-68-396-B	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-5	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												ET	CSD		IST-RR-3
												FSC	CSD		IST-RR-3
												RRA	RO		IST-RR-3
2-FSV-68-397-A	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-6	B	ACT	2	1	GL	SO	C	O/C	C	RPI	2Y		
												ET	CSD		IST-RR-3
												FSC	CSD		IST-RR-3
												RRA	RO		IST-RR-3
2-CKV-68-559-S	SAFETY INJ SYS RELIEF DISCH CHECK	2-47W813-1 / H-3	C	ACT	2	4	CK	SA	C	O/C	N/A	CM	CM		
2-RFV-68-563-S	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	ACT	1	6	RV	SA	C	O/C	N/A	RV	RV		IST-RR-4
2-RFV-68-564-S	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	ACT	1	6	RV	SA	C	O/C	N/A	RV	RV		IST-RR-4
2-RFV-68-565-S	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	ACT	1	6	RV	SA	C	O/C	N/A	RV	RV		IST-RR-4
2-CKV-68-849	PRESSURIZER RELIEF TANK N2 SUP HDR CHECK	2-47W830-6 / G-8	A/C	ACT	2	1	CK	SA	O	C	N/A	LTJ	AppJ		
												BDO	CSD		DTJ-28
												CVC	CSD		DTJ-28
2-FCV-70-66	UNIT 2 CCS SURGE TANK VENT	1-47W859-1 / E-3	B	ACT	3	2	ANG	AO	O	C	C	RPI	2Y		
												FSC	Q		
												STC	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-70-85-B	EXCESS LETDOWN HX CCS OUTLET	2-47W859-3 / D-10	A	ACT	2	6	BF	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-70-87-B	THERMAL BARRIER CCS RETURN	2-47W859-3 / H-9	A	ACT	2	3	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-70-89-B	RCP OIL COOLER CCS RET HDR	2-47W859-3 / E-9	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-70-90-A	THERMAL BARRIER CCS RETURN	2-47W859-3 / F-10	A	ACT	2	3	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-70-92-A	RCP OIL COOLER CCS RETURN	2-47W859-3 / E-10	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-70-100-A	RCP OIL COOLERS CCS SUPPLY	2-47W859-3 / G-4	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-70-133-A	THERMAL BARRIER CCS SUPPLY	2-47W859-3 / H-3	B	ACT	3	3	GA	MO	O	C	FAI	RPI STC	2Y CSD		DTJ-27

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-70-134-B	THERMAL BARRIER CCS SUPPLY	2-47W859-3 / H-3	A	ACT	2	3	GA	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-70-140-B	RCP OIL COOLER CCS SUPPLY	2-47W859-3 / G-3	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ CSD		DTJ-27
2-FCV-70-143-A	EXCESS LETDOWN HX CCS SUPPLY	2-47W859-3 / E-3	A	ACT	2	6	BF	MO	O	C	FAI	RPI LTJ STC	2Y AppJ Q		
2-FCV-70-153-B	RHR HEAT EXCHANGER 2B CCS OUTLET	2-47W859-4 / F-8	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-70-156-A	RHR HEAT EXCHANGER 2A CCS OUTLET	2-47W859-4 / F-10	B	ACT	3	18	BF	MO	C	O	FAI	RPI STO	2Y Q		
2-FCV-70-183-A	SAMPLE HEAT EXCHANGER CCS OUTLET	2-47W859-3 / C-9	B	ACT	3	3	GA	MO	O	C	FAI	RPI STC	2Y Q		
2-FCV-70-215-A	SAMPLE HEAT EXCHANGER CCS INLET	2-47W859-3 / A-8	B	ACT	3	3	GA	MO	O	C	FAI	RPI STC	2Y Q		
2-CKV-70-504A-A	CCS PUMP 2A-A DISCHARGE CHECK	1-47W859-1 / F-7	C	ACT	3	16	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
2-CKV-70-504B	CCS PUMP 2B-B DISCHARGE CHECK	1-47W859-1 / E-7	C	ACT	3	16	CK	SA	O/C	O/C	N/A	CVC CVO	Q Q		
2-ISV-70-516	REACTOR BUILDING CCS SUPPLY ISOLATION	2-47W859-1 / B-3	B	ACT	3	8	BF	M	O	C	N/A	MS	2Y		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-RFV-70-521	WASTE GAS COMPR B HX CCS OUTLET RELIEF	1-47W859-1 / A-1	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-538-S	UNIT 2 CCS SURGE TANK RELIEF	2-47W859-1 / E-1	C	ACT	3	3	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-539-S	UNIT 2 CCS SURGE TANK RELIEF	2-47W859-1 / E-1	C	ACT	3	3	RV	SA	C	O/C	N/A	RV	10Y		DTJ-29
2-RFV-70-551A-A	RHR HEAT EXCHANGER 2A-A CCS OUTLET RELIEF	1-47W859-4 / E-11	C	ACT	3	1.5	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-551B-B	RHR HEAT EXCHANGER 2B-B CCS OUTLET RELIEF	2-47W859-4 / E-8	C	ACT	3	1.5	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-556A-A	CCP 2A-A OIL COOLER CCS OUTLET RELIEF	1-47W859-4 / H-11	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-556B-B	CCP 2B-B OIL COOLERS CCS OUTLET RELIEF	2-47W859-4 / A-8	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-561A-A	SI PUMP 2A-A LUBE OIL COOLER CCS OUT RELIEF	2-47W859-4 / B-10	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-561B-B	SI PUMP 2B-B LUBE OIL COOLER CCS OUT RELIEF	2-47W859-4 / B-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-565A-A	RHR PMP 2A-A SEAL WATER HX CCS OUTLET RELIEF	2-47W859-4 / C-10	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-565B-B	RHR PMP 2B-B SEAL WATER HX CCS OUTLET RELIEF	2-47W859-4 / C-8	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-570A-A	CS PUMP 2A-A OIL HX CCS OUTLET RELIEF	2-47W859-4 / D-10	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-570B-B	CS PUMP 2B-B OIL HX CCS OUTLET RELIEF	2-47W859-4 / D-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-578	CVCS LETDOWN HX 2A CCS OUTLET RELIEF	2-47W859-3 / A-7	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-584	CVCS SEAL WATER HX 2A CCS OUTLET RELIEF	2-47W859-3 / B-6	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-70-679	RCP THERMAL BARRIER CCS SUP HDR CHECK	2-47W859-3 / H-4	A/C	ACT	2	3	CK	SA	O	C	N/A	LTJ BDO CVC	AppJ CSD CSD		 DTJ-31 DTJ-31
2-CKV-70-681A	RCP 1 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / G-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-70-681B	RCP 2 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / F-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-70-681C	RCP 3 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / F-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-70-681D	RCP 4 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / H-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-70-682A	RCP 1 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / G-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-70-682B	RCP 2 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / F-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-70-682C	RCP 3 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / E-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-CKV-70-682D	RCP 4 THERMAL BARRIER CCS SUPPLY CHECK	2-47W859-3 / H-8	C	ACT	3	2	CK	SA	O	C	N/A	CM	CM		
2-RFV-70-683A	RCP 1 THERMAL BARRIER CCS RETURN RELIEF	2-47W859-3 / G-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-683B	RCP 2 THERMAL BARRIER CCS RETURN RELIEF	2-47W859-3 / F-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-683C	RCP 3 THERMAL BARRIER CCS RETURN RELIEF	2-47W859-3 / E-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-RFV-70-683D	RCP 4 THERMAL BARRIER CCS RETURN RELIEF	2-47W859-3 / H-8	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-CKV-70-687	2-FCV-70-87 BYPASS CHECK	2-47W859-3 / H-9	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-RFV-70-694	RCP OIL COOLER CCS SUPPLY RELIEF	2-47W859-3 / F-4	C	ACT	3	0.75	TRV	SA	C	O/C	N/A	RV	RV		
2-CKV-70-698	2-FCV-70-89 BYPASS CHECK	2-47W859-3 / E-9	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-ISV-70-700	RCP OIL COOLER CCS RETURN ISOLATION	2-47W859-3 / E-11	B	ACT	3	6	BF	M	O	C	N/A	MS	2Y		
2-RFV-70-703	EXCESS LETDOWN HX CCS OUT RELIEF	2-47W859-3 / E-5	A/C	ACT	2	3	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		
2-CKV-70-790	RCP OIL CLR HDR SUP BYPASS CHECK	2-47W859-3 / G-4	A/C	ACT	2	0.75	CK	SA	C	O/C	N/A	LTJ CM	AppJ CM		
2-RFV-70-835	RCP THERMAL BARRIER CCS SUP HDR RLF	2-47W859-3 / H-4	C	ACT	3	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-FCV-72-2-B	CNTMT SPRAY HDR B ISOLATION	2-47W812-1 / A-3	A	ACT	2	10	GA	MO	C	O/C	FAI	RPI LTJ STC STO	2Y AppJ Q Q		
2-FCV-72-13-B	CNTMT SPRAY PUMP 2B-B MINIFLOW	2-47W812-1 / B-6	B	ACT	2	2	GL	MO	C	O/C	FAI	RPI STC STO	2Y Q Q		
2-FCV-72-21-B	RWST TO CNTMT SPRAY PUMP 2B-B SUCTION	2-47W812-1 / B-10	B	ACT	2	12	GA	MO	O	C	FAI	RPI STC	2Y Q		
2-FCV-72-22-A	RWST TO CNTMT SPRAY PUMP 2A-A SUCTION	2-47W812-1 / C-10	B	ACT	2	12	GA	MO	O	C	FAI	RPI STC	2Y Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-72-34-A	CNTMT SPRAY PMP 2A-A MINIFLOW	2-47W812-1 / C-6	B	ACT	2	2	GL	MO	C	O/C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
2-FCV-72-39-A	CNTMT SPRAY HDR A ISOLATION	2-47W812-1 / D-3	A	ACT	2	10	GA	MO	C	O/C	FAI	RPI	2Y		
												LTJ	AppJ		
												STC	Q		
												STO	Q		
2-RFV-72-40	2-FCV-72-40 BONNET PRESS RELIEF	2-47W812-1 / F-3	A/C	ACT	2	0.75	RV	SA	C	O/C	N/A	LTJ	AppJ		
												RV	RV		
2-FCV-72-40-A	RHR SPRAY HDR A ISOLATION	2-47W812-1 / F-4	A	ACT	2	8	GA	MO	C	O/C	FAI	RPI	2Y		
												LTJ	AppJ		
												STC	RO		DTJ-04
												STO	RO		DTJ-04
2-RFV-72-41	2-FCV-72-41 BONNET PRESS RELIEF	2-47W812-1 / E-3	A/C	ACT	2	0.75	RV	SA	C	O/C	N/A	LTJ	AppJ		
												RV	RV		
2-FCV-72-41-B	RHR SPRAY HDR B ISOLATION	2-47W812-1 / E-4	A	ACT	2	8	GA	MO	C	O/C	FAI	RPI	2Y		
												LTJ	AppJ		
												STC	RO		DTJ-04
												STO	RO		DTJ-04
2-FCV-72-44-A	CNTMT SUMP TO CS PUMP 2A-A SUCTION	2-47W812-1 / G-3	B	ACT	2	12	GA	MO	C	O	FAI	RPI	2Y		
												STO	RO		DTJ-24

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-72-45-B	CNTMT SUMP TO CS PUMP 2B-B SUCTION	2-47W812-1 / H-3	B	ACT	2	12	GA	MO	C	O	FAI	RPI STO	2Y RO		 DTJ-24
2-CKV-72-506-A	CNTMT SPRAY PMP 2A-A SUCTION CHECK	2-47W812-1 / C-10	C	ACT	2	12	CK	SA	C	O/C	N/A	CVC CVO	Q Q		
2-CKV-72-507-B	CNTMT SPRAY PMP 2B-B SUCTION CHECK	2-47W812-1 / B-10	C	ACT	2	12	CK	SA	C	O/C	N/A	CVC CVO	Q Q		
2-RFV-72-508-A	CNTMT SPRAY PMP 2A-A SUCTION RELIEF	2-47W812-1 / C-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-RFV-72-509-B	CNTMT SPRAY PMP 2B-B SUCTION RELIEF	2-47W812-1 / A-9	C	ACT	2	0.75	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-72-524-A	CNTMT SPRAY PMP 2A-A DISCH CHECK	2-47W812-1 / D-6	C	ACT	2	10	CK	SA	C	O	N/A	BDC CVO	Q Q		
2-CKV-72-525-B	CNTMT SPRAY PMP 2B-B DISCH CHECK	2-47W812-1 / A-6	C	ACT	2	10	CK	SA	C	O	N/A	BDC CVO	Q Q		
2-CKV-72-548-A	CNTMT SPRAY HDR A CNTMT CHECK VALVE	2-47W812-1 / D-2	C	ACT	2	10	CK	SA	C	O	N/A	CM	CM		
2-CKV-72-549-B	CNTMT SPRAY HDR B CNTMT CHECK VALVE	2-47W812-1 / A-2	C	ACT	2	10	CK	SA	C	O	N/A	CM	CM		
2-CKV-72-562-A	RHR SPRAY HDR A CNTMT CHECK VALVE	2-47W812-1 / F-2	C	ACT	2	8	CK	SA	C	O	N/A	CM	CM		
2-CKV-72-563-B	RHR SPRAY HDR B CNTMT CHECK VALVE	2-47W812-1 / E-2	C	ACT	2	8	CK	SA	C	O	N/A	CM	CM		
2-FCV-74-1-A	LOOP 4 HOT LEG TO RHR SUCTION	2-47W810-1 / G-2	A	ACT	1	14	GA	MO	C	O/C	FAI	LTP RPI STC STO	2Y 2Y CSD CSD		 DTJ-17 DTJ-17

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-74-2-B	LOOP 4 HOT LEG TO RHR SUCTION	2-47W810-1 / G-3	A	ACT	1	14	GA	MO	C	O/C	FAI	LTP	2Y		
												RPI	2Y		
												STC	CSD		DTJ-17
												STO	CSD		DTJ-17
2-FCV-74-3-A	RHR PUMP 2A-A SUCTION	2-47W810-1 / F-9	B	ACT	2	14	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
2-FCV-74-8-A	2-FCV-74-2 BYPASS RHR SUCTION	2-47W810-1 / H-3	A	ACT	1	10	GA	MO	C	O/C	FAI	LTP	2Y		
												RPI	2Y		
												STC	CSD		DTJ-17
												STO	CSD		DTJ-17
2-FCV-74-9-B	2-FCV-74-1 BYPASS RHR SUCTION	2-47W810-1 / G-2	A	ACT	1	10	GA	MO	C	O/C	FAI	LTP	2Y		
												RPI	2Y		
												STC	CSD		DTJ-17
												STO	CSD		DTJ-17
2-FCV-74-12-A	RHR PUMP 2A-A MINIMUM FLOW	2-47W810-1 / G-7	B	ACT	2	3	GL	MO	O	O/C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		
2-FCV-74-21-B	RHR PUMP 2B-B SUCTION	2-47W810-1 / C-9	B	ACT	2	14	GA	MO	O	C	FAI	RPI	2Y		
												STC	Q		
2-FCV-74-24-B	RHR PUMP 2B-B MINIMUM FLOW	2-47W810-1 / B-6	B	ACT	2	3	GL	MO	O	O/C	FAI	RPI	2Y		
												STC	Q		
												STO	Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-74-33-A	RHR HEAT EXCHANGER 2A OUTLET CROSSTIE	2-47W810-1 / E-4	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-25
2-FCV-74-35-B	RHR HEAT EXCHANGER 2B OUTLET CROSSTIE	2-47W810-1 / C-4	B	ACT	2	8	GA	MO	O	C	FAI	RPI STC	2Y CSD		 DTJ-25
2-RFV-74-505-S	RHR PUMP SUCTION HDR RELIEF	2-47W810-1 / H-3	C	ACT	2	3	RV	SA	C	O/C	N/A	RV	RV		
2-CKV-74-514-A	RHR PUMP 2A-A DISCHARGE CHECK	2-47W810-1 / F-8	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-18 DTJ-18
2-CKV-74-515-B	RHR PUMP 2B-B DISCHARGE CHECK	2-47W810-1 / C-8	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-18 DTJ-18
2-CKV-74-544-A	RHR HEADER 2A MINIMUM FLOW CHECK	2-47W810-1 / F-5	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-30 DTJ-30
2-CKV-74-545-B	RHR HEADER 2B MINIMUM FLOW CHECK	2-47W810-1 / C-5	C	ACT	2	8	CK	SA	C	O/C	N/A	CVC CVO	RO RO		DTJ-30 DTJ-30
2-FCV-77-9-B	RCDT PUMP DISCHARGE FLOW CONTROL	2-47W830-1 / D-1	A	ACT	2	3	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-77-10-A	RCDT PUMP DISCHARGE FLOW CONTROL	2-47W830-1 / E-1	A	ACT	2	3	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-77-16-B	RCDT TO GAS ANALYZER FLOW CONTROL	2-47W830-1 / B-5	A	ACT	2	0.75	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-77-17-A	RCDT TO GAS ANALYZER FLOW CONTROL	2-47W830-1 / B-6	A	ACT	2	0.75	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-77-18-B	RCDT TO VENT HDR FLOW CONTROL	2-47W830-1 / B-5	A	ACT	2	1	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-77-19-A	RCDT TO VENT HDR FLOW CONTROL	2-47W830-1 / B-6	A	ACT	2	1	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-77-20-A	RCDT N2 SUPPLY FLOW CONTROL	2-47W830-1 / C-6	A	ACT	2	1	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-77-127-B	RB SUMP DISCHARGE FLOW CONTROL	2-47W851-1 / F-7	A	ACT	2	2	PLG	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-77-128-A	RB SUMP DISCHARGE FLOW CONTROL	2-47W851-1 / F-8	A	ACT	2	2	PLG	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-RFV-77-2875	RB SUMP DISCH RLF	2-47W851-1 / F-7	A/C	ACT	2	2	RV	SA	C	O/C	N/A	LTJ RV	AppJ RV		
2-ISV-78-557	UNIT 2 REFLG CAVITY SUP HDR ISOL	2-47W855-1 / G-4	A	PASS	2	4	DIA	M	C	C	N/A	LTJ	AppJ		
2-ISV-78-558	UNIT 2 REFLG CAVITY SUP HDR ISOL	2-47W855-1 / G-4	A	PASS	2	4	DIA	M	C	C	N/A	LTJ	AppJ		
2-ISV-78-560	UNIT 2 REFLG CAVITY RETURN HDR ISOL	2-47W855-1 / G-4	A	PASS	2	6	DIA	M	C	C	N/A	LTJ	AppJ		
2-ISV-78-561	UNIT 2 REFLG CAVITY RETURN HDR ISOL	2-47W855-1 / G-4	A	PASS	2	6	DIA	M	C	C	N/A	LTJ	AppJ		
2-FCV-81-12-A	PRIMARY WATER TO PRT AND RCP STANDPIPES	2-47W819-1 / B-4	A	ACT	2	3	DIA	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-CKV-81-502	PRIMARY WATER CNTMT HDR CHECK VLV	2-47W819-1 / B-4	A/C	ACT	2	3	CK	SA	O	C	N/A	LTJ CM	AppJ CM		
2-ISV-84-530-S	RCDT PMPS DISCH ISOL TO FLOOD MODE AUX BORATIO	2-47W809-7 / F-3	A	PASS	2	1	GL	M	C	C	N/A	LTJ	AppJ		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-90-107-A	CNTMT BLDG LOWER COMPT AIR RAD MON SUPPLY	2-47W610-90-3 / B -8	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-90-108-B	CNTMT BLDG LOWER COMPT AIR RAD MON SUPPLY	2-47W610-90-3 / C -7	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-90-109-B	CNTMT BLDG LOWER COMPT AIR RAD MON SUPPLY	2-47W610-90-3 / C -7	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-90-110-B	CNTMT BLDG LOWER COMPT AIR RAD MON RETURN	2-47W610-90-3 / D -7	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-90-111-A	CNTMT BLDG LOWER COMPT AIR RAD MON RETURN	2-47W610-90-3 / D -8	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-90-113-A	CNTMT BLDG UPPER COMPT AIR RAD MON SUPPLY	2-47W610-90-3 / D -3	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-90-114-B	CNTMT BLDG UPPER COMPT AIR RAD MON SUPPLY	2-47W610-90-3 / E -2	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-90-115-B	CNTMT BLDG UPPER COMPT AIR RAD MON SUPPLY	2-47W610-90-3 / E -2	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix B - Valve Test Plan

VALVE ID	FUNCTION	DRAWING/COOR	CAT	ACT/ PASS	CLASS	SIZE	TYPE	ACT	POSITION			TEST REQ	FREQ	PROCEDURE	NOTES
									NORM	SAFE	FAIL				
2-FCV-90-116-B	CNTMT BLDG UPPER COMPT AIR RAD MON RETURN	2-47W610-90-3 / E -2	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		
2-FCV-90-117-A	CNTMT BLDG UPPER COMPT AIR RAD MON RETURN	2-47W610-90-3 / F -3	A	ACT	2	1.5	GL	AO	O	C	C	RPI LTJ FSC STC	2Y AppJ Q Q		

Appendix C - Exemption from 10 CFR 50.55a(f)(4)(ii)
Page 1 of 4

Exemption from 10 CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to Allow Concurrent Interval with Unit 2

Requirements of 10 CFR 50.55a and ISTA-3120(d)

Title 10 of Code of Federal Regulations (CFR) 50.55a(f)(4)(i) requires Inservice Testing (IST) to verify operational readiness of pumps and valves, whose function is required for safety, conducted during the initial 120-month interval to comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph 10 CFR 50.55a(b) on the date 12 months before the date of issuance of the operating license.

10 CFR 50.55a(f)(4)(ii) requires IST to verify operational readiness of pumps and valves, whose function is required for safety, conducted during successive 120-month intervals to comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph 10 CFR 50.55a(b) 12 months before the start of the 120-month interval.

In addition, the American Society of Mechanical Engineers (ASME) Operating and Maintenance (OM) Code ISTA-3120(d) states that each of the inservice test intervals may be extended or deceased by as much as 1 year. Adjustments shall not cause successive intervals to be altered by more than 1 year from the original pattern intervals.

Background

The first WBN Unit 1 IST interval was extended to 11 years, and the second interval was then reduced to 9 years in order to return subsequent intervals to their original schedule in accordance with ASME OM Code, ISTA-3120(d). The WBN Unit 1 IST Program is currently in its second 120-month IST interval, which is scheduled to end on May 26, 2016. The WBN Unit 2 IST Program initial 120-month interval will begin at the start of WBN Unit 2 commercial service, which is currently scheduled for August 2015 (subject to change as Unit 2 draws nearer to completion).

The most recent Status Report of NRC Activities of Potential Interest to OM Main Committee (ADAMS Accession Number ML13168A466), indicates that the next proposed draft of 10 CFR 50.55a rulemaking to incorporate the 2012 Edition of the ASME OM Code is tentatively scheduled to be issued in June 2014 and the final rule is tentatively scheduled to be published in June 2015.

Based on the rules and anticipated dates provided above, the edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b) is expected to be the same (ASME OM Code, 2004 Edition through 2006 Addenda) for both the WBN Unit 1 third 120-month interval and WBN Unit 2 initial 120-month interval.

Exemption from 10 CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to Allow Concurrent Interval with Unit 2

Exemption Request

Pursuant to 10 CFR 50.12, the Tennessee Valley Authority (TVA) requests exemption from the requirements of 10 CFR 50.55a(f)(4)(ii) at Watts Bar Nuclear Plant (WBN) Unit 1 to allow alignment of the third inservice test (IST) program 120-month interval dates to be concurrent with WBN Unit 2 first interval date. Furthermore, it is requested that both WBN Unit 1 and WBN Unit 2 be allowed to use the latest edition and addenda of the ASMEOM Code currently referenced by 10 CFR 50.55a(b) which is ASME OM Code, 2004 Edition through 2006 Addenda. As noted above, compliance with OM Code ISTA-3120(d) will not be possible due to the shortening of the second WBN Unit 1 interval.

Special Circumstances of 10 CFR 50.12

This section will describe the special circumstances required by 10 CFR 50.12 as stated below and provides TVA's special circumstances for requesting the exemption:

(a) The Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of the regulations of this part, which are

(1) Authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security.

The IST/PST program will still be implemented and performed as required by regulation which will not result in undue risk to the public health and safety and are consistent with the common defense and security.

(2) The Commission will not consider granting an exemption unless special circumstances are present. Special circumstances are present whenever--

(i) Application of the regulation in the particular circumstances conflicts with other rules or requirements of the Commission; or

There are no conflicts with other rules or requirements.

Exemption from 10 CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to Allow Concurrent Interval with Unit 2

(ii) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; or

Strict adherence to the 120-month interval is not necessary to achieve the underlying purpose of the rule. The operational readiness of the pumps and valves, whose function is required for safety, will be adequately assured using the requirements of ASME Code, 2004 Edition through 2006 Addenda. Alignment of the third interval program at Unit 1 with the first interval program at Unit 2 meets the underlying purpose to perform IST in accordance with 10 CFR 50.55a(f).

(iii) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated; or

Unless the exemption request is granted, there will be an imposed burden and undue hardship to maintain both unit IST programs on different 10-year intervals. The current interval schedule represents about a 9 – 10 month gap between the WBN Unit 1 and WBN Unit 2 intervals. This would require separate WBN Unit 1 IST Program and WBN Unit 2 IST Program development (including separate unit specific relief requests), internal TVA review/validation, and subsequent NRC review of unit specific relief requests that may be submitted.

Alternatively, with the exemption request being approved, the IST Program at WBN Unit 1 would be updated to align the third 120-month interval date with the first 120-month interval date of WBN Unit 2, which starts on the unit commercial service date. This alignment will permit single program submittals and subsequent 10-year program updates for both units and simplify the review of any relief requests that may be submitted during interval updates from this point forward.

Because the IST program test activities are calendar based, a reduction of the 10-year interval would not result in a reduction in testing requirements or testing performed (i.e., whether the components are tested late in one interval versus early in the next interval does not change or alter the actual periods between component tests.)

Appendix C - Exemption from 10 CFR 50.55a(f)(4)(ii)
Page 4 of 4

Exemption from 10 CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to Allow Concurrent Interval with Unit 2

(iv) The exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the grant of the exemption; or

There will be no change in plant safety as a result of this exemption being granted. The overall effect of shortening the WBN Unit 1 second 10-year interval does not have a safety impact. Because the testing is calendar based, the inservice testing of the affected components/ equipment will be performed on the same schedule regardless whether that testing is considered to occur at the end of one test interval or the beginning of the next.

(v) The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation; or

This exemption will be a one-time exemption to align the test intervals for both units. Implementation of the IST/PST program will ensure continued compliance with the regulations.

(vi) There is present any other material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption. If such condition is relied on exclusively for satisfying paragraph (a)(2) of this section, the exemption may not be granted until the Executive Director for Operations has consulted with the Commission.

There are no material circumstances present that were not considered when the regulation was adopted.

Appendix D - Pump Relief Requests
Page 1 of 7
IST-RR-1
Pump Vibration Reference Values and Acceptance Criteria

Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(i)
Alternative Provides Acceptable Level of Quality and Safety

ASME Code Component(s) Affected

Pump ID	Pump Description	Pump Group	Pump Type
0-PMP-31-36/1-A	SHUTDOWN BOARD ROOM CW PUMP A-A	A	C-H
0-PMP-31-49/1-B	SHUTDOWN BOARD ROOM CW PUMP B-B	A	C-H
0-PMP-31-80/1-A	MAIN CONTROL ROOM CW PUMP A-A	A	C-H
0-PMP-31-96/1-B	MAIN CONTROL ROOM CW PUMP B-B	A	C-H
0-PMP-31-128/1-A	ELECTRICAL BOARD ROOM CW PUMP A-A	A	C-H
0-PMP-31-129/1-B	ELECTRICAL BOARD ROOM CW PUMP B-B	A	C-H
0-PMP-67-28-A	ESSENTIAL RAW COOLING WATER PUMP A-A	A	VLS
0-PMP-67-32-A	ESSENTIAL RAW COOLING WATER PUMP B-A	A	VLS
0-PMP-67-36-A	ESSENTIAL RAW COOLING WATER PUMP C-A	A	VLS
0-PMP-67-40-A	ESSENTIAL RAW COOLING WATER PUMP D-A	A	VLS
0-PMP-67-47-B	ESSENTIAL RAW COOLING WATER PUMP E-B	A	VLS
0-PMP-67-51-B	ESSENTIAL RAW COOLING WATER PUMP F-B	A	VLS
0-PMP-67-55-B	ESSENTIAL RAW COOLING WATER PUMP G-B	A	VLS
0-PMP-67-59-B	ESSENTIAL RAW COOLING WATER PUMP H-B	A	VLS
0-PMP-70-51-S	CCS PUMP C-S	A	C-H
1-PMP-3-1A-S	TD AUX FEEDWATER PUMP 1A-S	B	C-H
1-PMP-3-118-A	AUX FEEDWATER PMP 1A-A	A	C-H
1-PMP-3-128-B	AUX FEEDWATER PMP 1B-B	A	C-H
1-PMP-62-104-B	CENTRIFUGAL CHARGING PUMP 1B-B	A	C-H
1-PMP-62-108-A	CENTRIFUGAL CHARGING PUMP 1A-A	A	C-H
1-PMP-62-230-A	BORIC ACID TRANSFER PUMP 1A-A	A	C-H
1-PMP-62-232-B	BORIC ACID TRANSFER PUMP 1B-B	A	C-H
1-PMP-63-10-A	SAFETY INJECTION PUMP 1A-A	B	C-H
1-PMP-63-15-B	SAFETY INJECTION PUMP 1B-B	B	C-H
1-PMP-67-431-A	ERCW SCREEN WASH PUMP 1A-A	A	VLS
1-PMP-67-440-B	ERCW SCREEN WASH PUMP 1B-B	A	VLS
1-PMP-70-38-B	CCS PUMP 1B-B	A	C-H
1-PMP-70-46-A	CCS PUMP 1A-A	A	C-H
1-PMP-72-10-B	CONTAINMENT SPRAY PUMP 1B-B	B	C-H
1-PMP-72-27-A	CONTAINMENT SPRAY PUMP 1A-A	B	C-H
1-PMP-74-10-A	RHR PUMP 1A-A	A	C-V
1-PMP-74-20-B	RHR PUMP 1B-B	A	C-V
2-PMP-3-2A-S	TD AUX FEEDWATER PUMP 2A-S	B	C-H
2-PMP-3-118-A	AUX FEEDWATER PMP 2A-A	A	C-H

IST-RR-1
Pump Vibration Reference Values and Acceptance Criteria

ASME Code Component(s) Affected (continued)

2-PMP-3-128-B	AUX FEEDWATER PMP 2B-B	A	C-H
2-PMP-62-104-B	CENTRIFUGAL CHARGING PUMP 2B-B	A	C-H
2-PMP-62-108-A	CENTRIFUGAL CHARGING PUMP 2A-A	A	C-H
2-PMP-62-230-A	BORIC ACID TRANSFER PUMP 2A-A	A	C-H
2-PMP-62-232-B	BORIC ACID TRANSFER PUMP 2B-B	A	C-H
2-PMP-63-10-A	SAFETY INJECTION PUMP 2A-A	B	C-H
2-PMP-63-15-B	SAFETY INJECTION PUMP 2B-B	B	C-H
2-PMP-67-437-A	ERCW SCREEN WASH PUMP 2A-A	A	VLS
2-PMP-67-447-B	ERCW SCREEN WASH PUMP 2B-B	A	VLS
2-PMP-70-33-B	CCS PUMP 2B-B	A	C-H
2-PMP-70-59-A	CCS PUMP 2A-A	A	C-H
2-PMP-72-10-B	CONTAINMENT SPRAY PUMP 2B-B	B	C-H
2-PMP-72-27-A	CONTAINMENT SPRAY PUMP 2A-A	B	C-H
2-PMP-74-10-A	RHR PUMP 2A-A	A	C-V
2-PMP-74-20-B	RHR PUMP 2B-B	A	C-V

See Section 3.4 of this TI for additional information for pump group and type.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

ISTB-3300 Reference Values
(a) Initial reference values shall be determined from the results of testing meeting the requirements of ISTB- 3100, Preservice Testing, or from the results of the first inservice test.

Reason for Request

Relief is being requested for establishing vibration reference value (V_r) solely on the basis of the data collected during preservice or inservice testing for those vibration points that have unusually low levels of vibration. This request applies only to rvalues for V_r associated with vibration testing.

Small values for V_r result in small acceptable ranges for pump operation. The acceptable range defined in Table ISTB-5121-1 and Table ISTB-5221-1 is less than or equal to $2.5V_r$. Based on a small acceptable range, a smooth running pump could be subject to unnecessary corrective action caused by numerically small changes in vibration levels.

IST-RR-1

Pump Vibration Reference Values and Acceptance Criteria

Proposed Alternative and Basis for Use

Proposed Alternative

Pumps with a measured V_r less than or equal to 0.05 inches per second (ips) for a particular vibration measurement location shall have subsequent test results for that location compared to an acceptable range based on 0.05 ips. In addition to the applicable ASME OM Code requirements, all pumps in the IST Program will be included in and will remain in the Predictive Maintenance Program regardless of their smooth running status.
When new reference values are established, the measured parameters will be evaluated for each location to determine if the provisions of this relief request still apply. If the measured V_r is greater than 0.05 ips, the requirement of ISTB-3300 will be applied. Conversely, if the measured V_r is less than or equal to 0.05 ips, a minimum value of 0.05 ips will be used in determining the acceptable, alert, and required action ranges.

Basis for Use

For very small reference values, hydraulic noise and instrument error can be a significant portion of the vibration reading and affect the repeatability of subsequent measurements. Also, experience gathered from the Unit 1 preventive maintenance program has shown that changes in vibration levels in the range of 0.05 ips do not normally indicate significant degradation in pump performance.
To avoid unnecessary corrective action, a minimum V_r value of 0.05 ips is being established for velocity measurements. This minimum value will be applied to individual vibration locations for the pumps listed in the above table where the measured reference value is less than 0.05 ips.
The Predictive Maintenance Program currently employs the following predictive monitoring techniques on an as applicable and as needed basis:

A. Vibration monitoring and analysis beyond that required by ISTB,
B. Oil sampling and analysis, and
C. Thermographic Analysis.

Bearing temperature trending is available for a number of the components through the plant process computer system.

Appendix D - Pump Relief Requests
Page 4 of 7
IST-RR-1
Pump Vibration Reference Values and Acceptance Criteria

Proposed Alternative and Basis for Use (continued)

If the measured parameters are discovered to be outside the normal operating range or to be trending toward an unacceptable degraded state, appropriate actions are taken that may include:

A. Increased monitoring to establish rate of change,
B. Review of component specific information to identify cause, and
C. Removal of the pump from service to perform maintenance.

This alternative to the requirements of ISTB-3300 provides an acceptable level of quality and safety.

Duration of Proposed Alternative

This request is for the duration of the Unit 2 PST period and for the duration of the first concurrent Unit 1 / Unit 2 IST 120-month interval (third interval for Unit 1 and first interval for Unit 2).

Precedents

The following NRC accepted precedent submittals are noted for similar relief requests:

WBN Unit 1 second IST interval, which was applicable to Unit 1 and common Unit 1 and Unit 2 pumps (*Watts Bar Nuclear Plant, Unit 1 - Requests for Relief for the Second 10-Year Pump and Valve Inservice Testing Program*, ADAMS Accession Number ML070090504, dated March 9, 2007).
Sequoyah Nuclear Plant (SQN) Units 1 and 2 and WBN Units 1 and 2 are very similar in design with identical pump manufacturer/model applications in many cases. SQN was granted a similar relief request for their third IST interval (*Sequoyah Nuclear Plant, Units 1 and 2 - Request for Relief from the Requirements of the ASME Code*, ADAMS Accession Number ML061790733, dated July 27, 2006).
Beaver Valley Power Station, Unit No. 2 - Relief Request Nos. PRR1, PRR2, PRR3, PRR4, PRR5, PRR6, PRR7, PRR8, PRR9, and VRR1 Regarding the Third 10-Year Inservice Testing Program Relief Requests, (ADAMS Accession Number ML080140299, dated February 14, 2008).
James A. FitzPatrick Nuclear Power Plant - Relief Requests for the Fourth Interval Inservice Testing Program, (ADAMS Accession Number ML072910422, dated November 27, 2007).
North Anna Power Station, Units 1 and 2 RE: Inservice Testing Program for Pump and Valves, Third Ten Year Interval Update, (ADAMS Accession Number ML020280439, dated January 28, 2002).

Appendix D - Pump Relief Requests
Page 5 of 7
IST-RR-2
ERCW Screen Wash Pump Test Method

Relief Request in Accordance with 10 CFR 50.55a(f)(5)(iii)
Inservice Testing Impracticality

ASME Code Component(s) Affected

Pump ID	Pump Description	Pump Group	Pump Type
1-PMP-67-431-A	ERCW SCREEN WASH PUMP 1A-A	A	VLS
1-PMP-67-440-B	ERCW SCREEN WASH PUMP 1B-B	A	VLS
2-PMP-67-437-A	ERCW SCREEN WASH PUMP 2A-A	A	VLS
2-PMP-67-447-B	ERCW SCREEN WASH PUMP 2B-B	A	VLS

See Section 3.4 of this TI for additional information for pump group and type.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

ISTB-5210 Preservice Testing
(a) In systems where resistance can be varied, flow rate and differential pressure shall be measured at a minimum of five points. If practicable, these points shall be from pump minimum flow to at least pump design flow. A pump curve shall be established based on the measured points. At least one point shall be designated as the reference point(s). Data taken at the reference point will be used to compare the results of inservice tests. A pump curve need not be established for pumps in systems where resistance cannot be varied.

ISTB-5221 Group A Test Procedure
(b) The resistance of the system shall be varied until the flow rate equals the reference point. The differential pressure shall then be determined and compared to its reference value. Alternatively, the flow rate shall be varied until the differential pressure equals the reference point and the flow rate determined and compared to the reference flow rate value.

ISTB-5223 Comprehensive Test Procedure
(b) The resistance of the system shall be varied until the flow rate equals the reference point. The differential pressure shall then be determined and compared to its reference value. Alternatively, the flow rate shall be varied until the differential pressure equals the reference point and the flow rate determined and compared to the reference flow rate value.

IST-RR-2
ERCW Screen Wash Pump Test Method

Impracticality of Compliance

The configuration of the ERCW Screen Wash Pump discharge piping system does not provide straight lengths of piping that will support the installation of a permanent flow measuring device or the utilization of a portable flow measuring device capable of providing accurate flow rate measurements. The lack of permanent or temporary flow instrumentation makes it impractical to adjust pump flow to specific value(s) and measure the associated differential pressure as required for performance of Preservice, Group A, and Comprehensive pump tests.

Burden Caused by Compliance

Significant system modifications, such as piping rerouting and support redesign, would be required to obtain a configuration that would provide reliable flow readings. Refer to Basis for Use section for further details.

Proposed Alternative and Basis for Use

Proposed Alternative
Testing will be performed by setting the system resistance to the same point for each test with the throttle valves full open. Flow will not be measured. The remaining variable that could affect system resistance is the spray nozzles. The condition of the spray nozzles will be inspected during each test performance with corrective actions initiated as necessary, thus providing assurance that the spray nozzle condition will not affect flow rate. With system resistance maintained constant for each test, pump degradation would be identified through changes in differential pressure. Differential pressure is calculated using inlet (based on lake level or suction pressure) and discharge pressure. The pump will be trended for degradation based on differential pressure at this point. Vibration readings will also be taken at this reference point. The pumps will be tested in this manner for the Preservice Test Program, the quarterly Group A, and the biennial Comprehensive inservice tests.
Instrument accuracy and acceptance criteria for pump differential pressure and vibration will meet the requirements of Table ISTB-3510-1 and Table ISTB-5221-1, respectively.
Preservice test data for differential pressure and vibration data will be evaluated to verify it represents acceptable pump operation and will be used as reference values for subsequent quarterly Group A and Comprehensive inservice tests.

Appendix D - Pump Relief Requests
Page 7 of 7
IST-RR-2
ERCW Screen Wash Pump Test Method

Proposed Alternative and Basis for Use (continued)

Basis for Use

The piping design does not provide permanent in-line instrumentation to measure flow. The pump design (vertical line shaft) and discharge piping do not allow the use of portable flow measuring equipment such as ultrasonic flow meters. These pumps take suction from the pump pit directly below the pump deck and are positioned on the deck adjacent to the traveling screens. The discharge piping for each pump is short and open ended, containing several elbows, reducers, and valves prior to entering the traveling screen enclosure. The configuration of this piping system does not provide straight lengths of piping that will support the installation of a permanent flow measuring device or the utilization of a portable flow measuring device capable of providing accurate flow rate measurements. Significant system modifications, such as piping rerouting and support redesign, would be required to obtain a configuration that would provide reliable flow readings.

Flow is not the critical parameter for these pumps. The nature of their operation is to ensure that sufficient pressure is maintained at the spray nozzles during flushing operations of the traveling water screens to ensure that sufficient force is exerted on the debris accumulated on the screen to remove it. This can be verified by visual observation verifying the effectiveness of the flushing operation.

Maintenance history was reviewed for spray nozzle plugging and it was determined that nozzle plugging is infrequent. The spray nozzles are inspected by operations personnel during spray operation with corrective maintenance initiated as required.

Based on the information provided above, compliance with the Code requirements is impractical and the proposed alternative provides reasonable assurance of the operational readiness of the ERCW Screen Wash Pumps.

Duration of Proposed Alternative

This request is for the duration of the first concurrent Unit 1 / Unit 2 IST 120-month Inservice Testing interval (third interval for Unit 1 and first interval for Unit 2).

Precedents

This relief request was granted for the WBN Unit 1 second interval (*Watts Bar Nuclear Plant, Unit 1 - Requests for Relief for the Second 10-Year Pump and Valve Inservice Testing Program*, ADAMS Accession Number ML070090504, dated March 9, 2007 and *Watts Bar Nuclear Plant, Unit 1 - Safety Evaluation of Relief Request PV-02, Revision 1, For the Second 10-Year Interval of the Inservice Testing Program*, ADAMS Accession Number ML102360191, dated August 30, 2010).

A similar relief request was granted for Sequoyah Units 1 and 2 third interval (*Sequoyah Nuclear Plant, Units 1 and 2 - Request for Relief from the Requirements of the ASME Code,* ADAMS Accession Number ML061790733, dated July 27, 2006).

Appendix E - Valve Relief Requests
Page 1 of 8

IST-RR-3
Reactor Head Vent Valve Stroke Time Testing

Relief Request in Accordance with 10 CFR 50.55a(f)(5)(iii)
Inservice Testing Impracticality

ASME Code Component(s) Affected

Valve ID	Function	Drawing /Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FSV-68-396-B	REACTOR VESSEL HEAD VENT	1-47W813-1 / F-5	B	Active	2	1	GL	SO
1-FSV-68-397-A	REACTOR VESSEL HEAD VENT	1-47W813-1 / G-6	B	Active	2	1	GL	SO
2-FSV-68-396-B	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-5	B	Active	2	1	GL	SO
2-FSV-68-397-A	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-6	B	Active	2	1	GL	SO

See Section 3.5 of this TI for additional information for valve category, type, and actuator. Referenced Drawings are not needed for review but are available upon request.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

ISTC-3300 Reference Values

Reference values shall be determined from the results of preservice testing or from the results of inservice testing. These tests shall be performed under conditions as near as practicable to those expected during subsequent inservice testing...

ISTC-3310 Effects of Valve Repair, Replacement, or Maintenance on Reference Values

When a valve or its control system has been replaced, repaired, or has undergone maintenance that could affect the valve's performance, a new reference value shall be determined or the previous value reconfirmed by an inservice test run before the time it is returned to service or immediately if not removed from service...

ISTC-3510 Exercising Test Frequency

Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months,...

ISTC-3560 Fail-Safe Valves

Valves with fail-safe actuators shall be tested by observing the operation of the actuator upon loss of valve actuating power in accordance with the exercising frequency of ISTC-3510.

IST-RR-3

Reactor Head Vent Valve Stroke Time Testing

Applicable Code Requirement (continued)

ISTC-5151 Valve Stroke Testing

(a) Active valves shall have their stroke times measured when exercised in accordance with ISTC-3500.

(b) The limiting value(s) of full-stroke time of each valve shall be specified by the Owner.

(c) Stroke time shall be measured to at least the nearest second.

(d) Any abnormality or erratic action shall be recorded (see ISTC-9120), and an evaluation shall be made regarding need for corrective action.

ISTC-5152 Stroke Test Acceptance Criteria

Test results shall be compared to reference values established in accordance with ISTC-3300, ISTC-3310, or ISTC-3320.

(a) Valves with reference stroke times of greater than 10 sec shall exhibit no more than ±25% change in stroke time when compared to the reference value.

(b) Valves with reference stroke times of less than or equal to 10 sec shall exhibit no more than ±50% change in stroke time when compared to the reference value.

(c) Valves that stroke in less than 2 sec may be exempted from ISTC-5152(b). In such cases the maximum limiting stroke time shall be 2 sec.

ISTC-5153 Stroke Test Corrective Action

(a) If a valve fails to exhibit the required change of obturator position or exceeds the limiting values of full-stroke time [see ISTC-5151(b)], the valve shall be immediately declared inoperable.

(b) Valves with measured stroke times that do not meet the acceptance criteria of ISTC-5152 shall be immediately retested or declared inoperable. If the valve is retested and the second set of data also does not meet the acceptance criteria, the data shall be analyzed within 96 hr to verify that the new stroke time represents acceptable valve operation, or the valve shall be declared inoperable. If the second set of data meets the acceptance criteria, the cause of the initial deviation shall be analyzed and the results documented in the record of tests (see ISTC-9120).

IST-RR-3
Reactor Head Vent Valve Stroke Time Testing

Impracticality of Compliance

Relief is being requested from measuring stroke times, establishing reference values, comparing stroke times to acceptance criteria / limiting values, and taking corrective action related to stroke time acceptance criteria / limiting values for the Reactor Vessel Head Vent throttle valves. In addition, fail safe testing of these valves will be performed at the same time and frequency as the proposed alternative exercise testing.

These valves are totally enclosed [seal welded bonnet], one-inch Target Rock solenoid valves, with thumb wheel actuated controllers that permit remote positioning of the valves. Valve opening and closing speed, and consequently valve opening and closing stroke time, is controlled by the rate at which the thumbwheel controller is moved and is not representative of valve condition.

Burden Caused by Compliance

Significant system modifications, such as alteration of the valve's control circuit to provide a separate handswitch to permit instantaneous valve operation, would be required solely to allow for the performance of valve stroke time testing.

Proposed Alternative and Basis for Use

Proposed Alternative

TVA proposes to utilize an enhanced maintenance program based on the following attributes:

A. Periodic replacement of critical valve parts [i.e., the linear voltage differential transformer (LVDT) that provides valve position indication feedback, the coil that operates the valve, and the valve's electrical terminal board] in accordance with TVA's environmental qualification binder for the valve. The current schedule for valve part replacement is every 126 months for the LVDT, every 294 months for the coil, and every 432 months for the valve terminal board.

B. Calibration of the valve's position control system each refueling outage. This calibration involves utilizing the valve controller to position the valve at various positions and utilizing the LVDT to determine the valve stem position. These are compared to ensure valve operation is as expected.

IST-RR-3
Reactor Head Vent Valve Stroke Time Testing

Proposed Alternative and Basis for Use (continued)

In addition to the enhanced maintenance program, tests will be conducted as follows to provide positive verification of the valve's ability to fulfill its specific function:

A. Full stroke exercise of each valve will be performed during shutdowns. The test will consist of cycling the valve controller through one complete cycle and verifying (using the valve position indicator operated by the LVDT attached to the valve stem) that the valve cycles through one full cycle in response to the valve controller. This action also simulates loss of power and satisfies the fail safe close test requirement.

B. During refueling outages, in addition to cycling the controller through one complete cycle and using the valve position indicator to verify valve travel, the valve travel will be verified by (a) ensuring no detectable flow is present through the valves with the valves closed, (b) ensuring flow is present when each valve is opened, and (c) ensuring that when each valve is returned to the closed position no detectable flow is present. The presence or absence of flow will be verified by monitoring a change in a process parameter, either the valve tail pipe temperature for an increase/decrease or the pressurizer relief tank for a temperature increase/decrease or level increase/no change. This additional verification which is consistent with ISTC-3520 ensures the valve disk is still attached to the stem and is capable of controlling flow.

Basis for Use

The Reactor Vessel Head Vent valves are throttled open manually by main control room operator action to (1) provide a reactor vessel head vent path; (2) vent non-condensables from the head during an accident to promote natural circulation; and (3) prevent gases from impeding reactor coolant circulation flow through the core. These valves are totally enclosed (seal welded bonnet), one-inch Target Rock solenoid valves with thumbwheel actuated controllers that permit remote positioning of the valves. Valve opening and closing speed, and consequently valve opening and closing stroke time, is controlled by the rate at which the thumbwheel controller is moved, and is not representative of valve condition. Design requirements impose a minimum stroke time limitation on these valves of not faster than 5 seconds. Restricting the stroke time to not less than 5 seconds effectively prohibits stroke timing the valve because the valve is capable of stroking considerably faster than the 5 second limit. Even if the 5 second limit did not exist, stroke timing of the valve using its thumb-wheel actuated controller would result in timing the ability of the operator to turn the thumb-wheel and not the ability of the valve to move.

IST-RR-3
Reactor Head Vent Valve Stroke Time Testing

Proposed Alternative and Basis for Use (continued)

An enhanced maintenance program of disassembly and inspection of valve internal parts was evaluated. This method was not considered appropriate for the following reasons:

A. Frequent disassembly can lead to distortion of the valve parts caused by the repetitive welding process to reinstall the seal weld. This distortion could cause unacceptable operational seat leakage, binding of internal parts, and other operational problems.

B. The physical appearance of the internal parts does not always provide clear and evident verification of acceptable valve operation.

Based on the information provided above, compliance with the Code requirements is impractical and the proposed alternative provides reasonable assurance of the operational readiness of the Reactor Vessel Head Vent valves.

Duration of Proposed Alternative

This request is for the duration of the Unit 2 PST period and for the duration of the first concurrent Unit 1 / Unit 2 IST 120-month Inservice Testing interval (third interval for Unit 1 and first interval for Unit 2).

Precedents

A similar relief request was granted for the Unit 1 second interval (*Watts Bar Nuclear Plant, Unit 1 - Requests for Relief for the Second 10-Year Pump and Valve Inservice Testing Program*, ADAMS Accession Number ML070090504, dated March 9, 2007).
Sequoyah Units 1 and 2 and WBN Units 1 and 2 are very closely related in design. Sequoyah was granted a similar relief request for their third interval (*Sequoyah Nuclear Plant, Units 1 and 2 - Request for Relief from the Requirements of the ASME Code*, ADAMS Accession Number ML061790733, dated July 27, 2006).

Appendix E - Valve Relief Requests
Page 6 of 8

IST-RR-4
Pressurizer Safety Valve Test Before Electric Generation

Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(ii)
Hardship or Unusual Difficulty without Compensating Increase in Level of Quality and Safety

ASME Code Component(s) Affected

Valve ID	Function	Drawing /Coord	Cat	Act/Pass	Class	Size	Type	Act
2-RFV-68-563	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	Active	1	1	RVL	SA
2-RFV-68-564	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	Active	1	1	RVL	SA
2-RFV-68-565	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	Active	1	1	RVL	SA

See Section 3.5 of this TI for additional information for valve category, type, and actuator.
Referenced Drawings are not needed for review but are available upon request.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

I-7210 Class 1 Safety Valves

Within 6 months before initial reactor criticality, each valve shall have its set-pressure verified. Set-pressure verification shall be determined by pressurizing the system up to the valve set-pressure and opening the valve, or the valve may be tested at or below normal system operating pressure with an assist device.

Reason for Request

Relief is being requested from verifying set-pressure while the valves are installed in the plant using system pressure or reduced system pressure with an assist device. These test methods would require personnel entry into a confined space at high ambient temperatures to install/remove the lift assist device on the PSVs or require plant operators to raise RCS pressure to the overpressure condition necessary to open the PSV to meet ASME OM Code I-7210 with 2 out of 3 PSVs gagged and repeat this evolution three times in succession, once for each PSV. Therefore, these in-situ conditions represent a hardship in performing the test and unusual difficulty without a compensating increase in the level of quality and safety.

Proposed Alternative and Basis for Use

Proposed Alternative

TVA proposes to perform set-pressure testing of the pressurizer safety valves (PSVs) at an approved vendor test facility within 6 months prior to initial reactor criticality.

IST-RR-4

Pressurizer Safety Valve Test Before Electric Generation

Proposed Alternative and Basis for Use (continued)

Basis for Use

There are a number of issues that make testing in the installed configuration a hardship without a compensating increase in the level of quality and safety. The following problems would be encountered:

A. Raising RCS pressure to the overpressure condition necessary to open the valve to meet ASME OM Code I-7210 with 2 out of 3 valves gagged would create an undesirable operating condition. This condition would have to be repeated three times in succession, once for each PSV.

B. While an assist device is available, it is generally used on other valve installations (i.e., the Main Steam Safety Valves) in less restrictive locations. Testing with the assist device necessitates that test personnel are in close proximity to the valves in a confined space (the pressurizer enclosure) with temperatures above 160 °F, which represents a potential safety hazard. These temperatures would increase with the lifting of the valves during testing. Extraction of test personnel should they become incapacitated by injury or illness would be difficult.

C. The rupture pressure of the pressurizer relief tank rupture disk is 88 to 100 psig. It is possible that the amount of discharge that would result from testing the PSVs in-situ could cause the rupture disk to rupture and discharge the contents of the tank into the containment building, resulting in personnel hazards and equipment damage.

D. Instruments, including those on the assist device, used during testing would have to be qualified for the high ambient temperature which is not feasible, thereby potentially reducing the accuracy of testing with the assist device.

E. The accuracy of the testing performed using the assist device is, in general, not as good as that of the test facility.

F. Controlling the RCS pressure to support the in-situ PSV testing would be difficult.

The proposed alternative is essentially the same test method used during the IST interval, which is performed in conjunction with refueling outages where one or more PSVs are either (a) removed, tested at a vendor facility, and reinstalled, or (b) replaced with valve(s) that were pretested at a vendor facility.

Based on the information provided above, compliance with the Code requirements represents a hardship or unusual difficulty without a compensating increase in level of quality and safety. The proposed alternative provides reasonable assurance of the operational readiness of the PSVs.

IST-RR-4
Pressurizer Safety Valve Test Before Electric Generation

Duration of Proposed Alternative

This request is for the duration of the Unit 2 Preservice Test period.

Precedents

A similar relief request was granted for Unit 1 (*Watts Bar Unit 1 - Relief from ASME Section XI Regarding Pressurizer Safety Valve Testing*, ADAMS Accession Numbers ML073200567 and ML073200570, dated September 5, 1995).

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-01

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-1-11-T	MAIN STEAM ISOL VALVE LOOP 2	1-47W801-1 / E-3	B	Active	2	32	GL	AO
1-FCV-1-22-T	MAIN STEAM ISOL VLV LOOP 3	1-47W801-1 / F-3	B	Active	2	32	GL	AO
1-FCV-1-29-T	MAIN STEAM ISOL VALVE LOOP 4	1-47W801-1 / C-3	B	Active	2	32	GL	AO
1-FCV-1-4-T	MAIN STEAM ISOL VALVE LOOP 1	1-47W801-1 / C-3	B	Active	2	32	GL	AO
2-FCV-1-11-T	MAIN STEAM ISOL VALVE LOOP 2	2-47W801-1 / E-3	B	Active	2	32	GL	AO
2-FCV-1-22-T	MAIN STEAM ISOL VLV LOOP 3	2-47W801-1 / F-3	B	Active	2	32	GL	AO
2-FCV-1-29-T	MAIN STEAM ISOL VALVE LOOP 4	2-47W801-1 / A-3	B	Active	2	32	GL	AO
2-FCV-1-4-T	MAIN STEAM ISOL VALVE LOOP 1	2-47W801-1 / C-3	B	Active	2	32	GL	AO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency
Fail Safe Close (FSC) on a Quarterly (Q) frequency

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Refueling Outage (RO) frequency
Fail Safe Close (FSC) on a Refueling Outage (RO) frequency

Justification for Deferred Test Frequency: Closing these valves causes a loss of main steam flow from one steam generator which in turn causes a steam generator level transient, either of which could cause a unit trip and safety injection. Valves are equipped with part stroke capability, however, even a part stroke exercise increases the risk of an inadvertent valve closure when the unit is operating (Reference NUREG-1482, Revision 1, Section 4.2.6, Note 1). In accordance with the manufacturer's recommendation, these valves should only be stroke time tested with steam on the valve. Therefore, stroke time testing can only be performed during MODE 3 operation, which is during the startup or shutdown sequence.

Deferred Test Justification: DTJ-02

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-1-17-A	MAIN STEAM AUX FWP HDR SUPPLY ISOL	1-47W803-2 / C-7	B	Active	3	4	GA	MO
1-FCV-1-18-B	MAIN STEAM AUX FWP HDR SUPPLY ISOL	1-47W803-2 / C-7	B	Active	3	4	GA	MO
2-FCV-1-17-A	MAIN STEAM AUX FWP HDR SUPPLY ISOL	2-47W803-2 / B-4	B	Active	3	4	GA	MO
2-FCV-1-18-B	MAIN STEAM AUX FWP HDR SUPPLY ISOL	2-47W803-2 / B-4	B	Active	3	4	GA	MO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Testing these valves to close completely isolates the steam driven auxiliary feedwater pump from its source of steam. Failure of either valve to reopen will cause a complete loss of auxiliary feedwater for the loss of all AC power or station blackout accidents.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-03

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-1-147-A	MAIN STEAM ISOL VLV LOOP 1 BYP WARMING VLV	1-47W801-1 / C-3	B	Active	2	2	GL	AO
1-FCV-1-148-B	MAIN STEAM ISOL VLV LOOP 2 BYP WARMING VLV	1-47W801-1 / E-3	B	Active	2	2	GL	AO
1-FCV-1-149-A	MAIN STEAM ISOL VLV LOOP 3 BYP WARMING VLV	1-47W801-1 / F-3	B	Active	2	2	GL	AO
1-FCV-1-150-B	MAIN STEAM ISOL VLV LOOP 4 BYP WARMING VLV	1-47W801-1 / A-3	B	Active	2	2	GL	AO
2-FCV-1-147-A	MAIN STEAM ISOL VLV LOOP 1 BYP WARMING VLV	2-47W801-1 / C-3	B	Active	2	2	GL	AO
2-FCV-1-148-B	MAIN STEAM ISOL VLV LOOP 2 BYP WARMING VLV	2-47W801-1 / E-3	B	Active	2	2	GL	AO
2-FCV-1-149-A	MAIN STEAM ISOL VLV LOOP 3 BYP WARMING VLV	2-47W801-1 / G-3	B	Active	2	2	GL	AO
2-FCV-1-150-B	MAIN STEAM ISOL VLV LOOP 4 BYP WARMING VLV	2-47W801-1 / B-3	B	Active	2	2	GL	AO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.
Fail Safe Close (FSC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.
Fail Safe Close (FSC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: The control circuitry for these valves has been modified to require the valves to be de-energized when unit startup is complete. The valves are maintained in the de-energized and closed condition during power operation. This modification was made to alleviate 10CFR50 Appendix R fire interactions from causing the valves to come open in a spurious fashion. Since the only time period in which these valves serve an active function is during startup, it is NOT prudent to restore power to the valve and place the valve, which is normally maintained in its fail safe condition, in other than its safe condition.

Deferred Test Justification: DTJ-04

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-72-40-A	RHR SPRAY HDR A ISOLATION	1-47W812-1 / F-3	A	Active	2	8	GA	MO
1-FCV-72-41-B	RHR SPRAY HDR B ISOLATION	1-47W812-1 / E-3	A	Active	2	8	GA	MO
2-FCV-72-40-A	RHR SPRAY HDR A ISOLATION	2-47W812-1 / F-4	A	Active	2	8	GA	MO
2-FCV-72-41-B	RHR SPRAY HDR B ISOLATION	2-47W812-1 / E-4	A	Active	2	8	GA	MO

Required Test Frequency: Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.
Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time open (STO) on a Refueling Outage (RO) frequency.
Full stroke exercise with stroke time closed (STC) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: These valves are electrically interlocked with containment sump valves 1(2)-FCV-63-72-A and 1(2)-FCV-63-73-B in such a manner that the sump valves must be opened to allow the spray valves to open. Opening the containment sump valves during operation requires either draining an extensive portion of the RHR system or allowing it to drain to the containment sump. Draining and refilling these lines requires a considerable amount of time and could extend forced outage duration. Allowing the affected piping to drain to the sump requires extensive cleanup time. Therefore testing during forced outages is NOT practical.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-05

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-3-508	STEAM GENERATOR 3 MFW CHECK	1-47W803-1 / F-2	C	Active	2	16	CK	SA
1-CKV-3-509	STEAM GENERATOR 2 MFW CHECK	1-47W803-1 / E-2	C	Active	2	16	CK	SA
1-CKV-3-510	STEAM GENERATOR 1 MFW CHECK	1-47W803-1 / C-2	C	Active	2	16	CK	SA
1-CKV-3-511	STEAM GENERATOR 4 MFW CHECK	1-47W803-1 / B-2	C	Active	2	16	CK	SA
2-CKV-3-508	STEAM GENERATOR 3 MFW CHECK	2-47W803-1 / F-2	C	Active	2	16	CK	SA
2-CKV-3-509	STEAM GENERATOR 2 MFW CHECK	2-47W803-1 / E-2	C	Active	2	16	CK	SA
2-CKV-3-510	STEAM GENERATOR 1 MFW CHECK	2-47W803-1 / C-2	C	Active	2	16	CK	SA
2-CKV-3-511	STEAM GENERATOR 4 MFW CHECK	2-47W803-1 / B-2	C	Active	2	16	CK	SA

Required Test Frequency: Check Valve Closure (CVC) on a Quarterly (Q) frequency.
Check Valve Bi-directional Open (BDO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Closure (CVC) on a Cold Shutdown (CSD) frequency.
Check Valve Bi-directional Open (BDO) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising these valves during power operation causes a loss of feedwater to the Steam Generator they supply which in turn causes a steam generator level transient, either of which could result in unit trip and safety injection.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-06

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-3-100-B	STEAM GENERATOR 4 MFW ISOL	1-47W803-1 / B-3	B	Active	2	16	GA	MO
1-FCV-3-103	STEAM GENERATOR 4 MFW REG VALVE	1-47W803-1 / B-4	B	Active	3	16	ANG	AO
1-FCV-3-103A	STEAM GENERATOR 4 MFW BYPASS REG VALVE	1-47W803-1 / A-4	B	Active	3	6	GL	AO
1-FCV-3-236	STEAM GENERATOR 1 MFW BYPASS LINE ISOL	1-47W803-1 / C-3	B	Active	2	6	GA	AO
1-FCV-3-239	STEAM GENERATOR 2 MFW BYPASS LINE ISOL	1-47W803-1 / D-3	B	Active	2	6	GA	AO
1-FCV-3-242	STEAM GENERATOR 3 MFW BYPASS LINE ISOL	1-47W803-1 / E-3	B	Active	2	6	GA	AO
1-FCV-3-245	STEAM GENERATOR 4 MFW BYPASS LINE ISOL	1-47W803-1 / A-3	B	Active	2	6	GA	AO
1-FCV-3-33-A	STEAM GENERATOR 1 MFW ISOL	1-47W803-1 / C-3	B	Active	2	16	GA	MO
1-FCV-3-35	STEAM GENERATOR 1 MFW REG VALVE	1-47W803-1 / C-4	B	Active	3	16	ANG	AO
1-FCV-3-35A	STEAM GENERATOR 1 MFW BYPASS REG VALVE	1-47W803-1 / C-4	B	Active	3	6	GL	AO
1-FCV-3-47-B	STEAM GENERATOR 2 MFW ISOL	1-47W803-1 / E-3	B	Active	2	16	GA	MO
1-FCV-3-48	STEAM GENERATOR 2 MFW REG VALVE	1-47W803-1 / E-4	B	Active	3	16	ANG	AO
1-FCV-3-48A	STEAM GENERATOR 2 MFW BYPASS REG VALVE	1-47W803-1 / D-4	B	Active	3	6	GL	AO
1-FCV-3-87-A	STEAM GENERATOR 3 MFW ISOL	1-47W803-1 / F-3	B	Active	2	16	GA	MO
1-FCV-3-90	STEAM GENERATOR 3 MFW REG VALVE	1-47W803-1 / F-4	B	Active	3	16	ANG	AO
1-FCV-3-90A	STEAM GENERATOR 3 MFW BYPASS REG VALVE	1-47W803-1 / F-4	B	Active	3	6	GL	AO
2-FCV-3-100-B	STEAM GENERATOR 4 MFW ISOL	2-47W803-1 / B-3	B	Active	2	16	GA	MO
2-FCV-3-103	STEAM GENERATOR 4 MFW REG VALVE	2-47W803-1 / B-4	B	Active	3	16	ANG	AO
2-FCV-3-103A	STEAM GENERATOR 4 MFW BYPASS REG VALVE	2-47W803-1 / A-4	B	Active	3	6	GL	AO
2-FCV-3-185	STEAM GENERATOR 1 MFW BACKFLUSH WARMING	2-47W803-1 / C-2	B	Active	2	2	GL	AO
2-FCV-3-186	STEAM GENERATOR 2 MFW BACKFLUSH WARMING	2-47W803-1 / E-2	B	Active	2	2	GL	AO
2-FCV-3-187	STEAM GENERATOR 3 MFW BACKFLUSH WARMING	2-47W803-1 / G-2	B	Active	2	2	GL	AO
2-FCV-3-188	STEAM GENERATOR 4 MFW BACKFLUSH WARMING	2-47W803-1 / B-2	B	Active	2	2	GL	AO
2-FCV-3-236	STEAM GENERATOR 1 MFW BYPASS LINE ISOL	2-47W803-1 / C-3	B	Active	2	6	GA	AO
2-FCV-3-239	STEAM GENERATOR 2 MFW BYPASS LINE ISOL	2-47W803-1 / D-3	B	Active	2	6	GA	AO
2-FCV-3-242	STEAM GENERATOR 3 MFW BYPASS LINE ISOL	2-47W803-1 / F-3	B	Active	2	6	GA	AO

Deferred Test Justification: DTJ-06

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
2-FCV-3-245	STEAM GENERATOR 4 MFW BYPASS LINE ISOL	2-47W803-1 / A-3	B	Active	2	6	GA	AO
2-FCV-3-33-A	STEAM GENERATOR 1 MFW ISOL	2-47W803-1 / C-3	B	Active	2	16	GA	MO
2-FCV-3-35	STEAM GENERATOR 1 MFW REG VALVE	2-47W803-1 / C-4	B	Active	3	16	ANG	AO
2-FCV-3-35A	STEAM GENERATOR 1 MFW BYPASS REG VALVE	2-47W803-1 / C-4	B	Active	3	6	GL	AO
2-FCV-3-47-B	STEAM GENERATOR 2 MFW ISOL	2-47W803-1 / E-3	B	Active	2	16	GA	MO
2-FCV-3-48	STEAM GENERATOR 2 MFW REG VALVE	2-47W803-1 / E-4	B	Active	3	16	ANG	AO
2-FCV-3-48A	STEAM GENERATOR 2 MFW BYPASS REG VALVE	2-47W803-1 / D-4	B	Active	3	6	GL	AO
2-FCV-3-87-A	STEAM GENERATOR 3 MFW ISOL	2-47W803-1 / F-3	B	Active	2	16	GA	MO
2-FCV-3-90	STEAM GENERATOR 3 MFW REG VALVE	2-47W803-1 / F-4	B	Active	3	16	ANG	AO
2-FCV-3-90A	STEAM GENERATOR 3 MFW BYPASS REG VALVE	2-47W803-1 / F-4	B	Active	3	6	GL	AO

Required Test Frequency:
All Valves
Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.
Valves 1(2)-FCV-3-35, 1(2)-FCV-3-35A, 1(2)-FCV-3-48, 1(2)-FCV-3-48A, 1(2)-FCV-3-90 1(2)-FCV-3-90A, 1(2)-FCV-3-103, 1(2)-FCV-3-103A, 2-FCV-3-185, 2-FCV-3-186, 2-FCV-3-187, 2 -FCV-3-188, 1(2)-FCV-3-236, 1(2)-FCV-3-239, 1(2)-FCV-3-242, 1(2)-FCV-3-245
Fail Safe Close (FSC) on a Quarterly (Q) frequency.

Deferred Test Frequency:
All Valves
Full stroke exercise with stroke time closed (STC) on a Refueling Outage (RO) frequency.
Valves 1(2)-FCV-3-35, 1(2)-FCV-3-35A, 1(2)-FCV-3-48, 1(2)-FCV-3-48A, 1(2)-FCV-3-90 1(2)-FCV-3-90A, 1(2)-FCV-3-103, 1(2)-FCV-3-103A, 2-FCV-3-185, 2-FCV-3-186, 2-FCV-3-187, 2 -FCV-3-188, 1(2)-FCV-3-236, 1(2)-FCV-3-239, 1(2)-FCV-3-242, 1(2)-FCV-3-245
Fail Safe Close (FSC) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency:
Exercising these valves during power operation causes a change of feedwater flow to the Steam Generator they supply which in turn causes a steam generator level transient, either of which could result in unit trip and safety injection. Stroke time testing of the FCVs is normally performed in mode 3 during shutdown for a refueling when isolation of feedwater is performed. The test procedure is written to allow performance during modes 5 and/or 6, but performance in these modes requires extensive lifting/re-landing of permanent wiring and installation/removal of jumpers and test switches to allow testing of individual valves. Modes 5 and 6 performance is only used for Post Maintenance Testing purposes on a valve-by-valve bases. Therefore, testing during forced outages is NOT practical.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-07

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-3-805-A	AUX FEEDWATER PMP 1A-A SUCTION CHECK	1-47W803-2 / F-5	C	Active	3	8	CK	SA
1-CKV-3-806-B	AUX FEEDWATER PMP 1B-B SUCTION CHECK	1-47W803-2 / F-6	C	Active	3	8	CK	SA
1-CKV-3-810-S	TD AUX FEEDWATER PUMP SUCTION CHECK	1-47W803-2 / G-3	C	Active	3	10	CK	SA
1-CKV-3-864-S	TD AUX FEEDWATER PUMP DISCHARGE CHECK	1-47W803-2 / H-6	C	Active	3	6	CK	SA
2-CKV-3-805-A	AUX FEEDWATER PMP 2A-A SUCTION CHECK	2-47W803-2 / D-5	C	Active	3	8	CK	SA
2-CKV-3-806-B	AUX FEEDWATER PMP 2B-B SUCTION CHECK	2-47W803-2 / D-7	C	Active	3	8	CK	SA
2-CKV-3-810-S	TD AUX FEEDWATER PUMP SUCTION CHECK	2-47W803-2 / C-4	C	Active	3	10	CK	SA
2-CKV-3-864-S	TD AUX FEEDWATER PUMP DISCHARGE CHECK	2-47W803-2 / C-6	C	Active	3	6	CK	SA

Required Test Frequency:
All Valves
Check Valve Open (CVO) on a Quarterly (Q) frequency.
Check Valve Closure (CVC) on a Quarterly (Q) frequency.

Deferred Test Frequency:
All Valves
Check Valve Open (CVO) on a Refueling Outage (RO) frequency.

Valves 1(2)-CKV-3-805, 1(2)-CKV-3-806, 1(2)-CKV-3-810
Check Valve Close (CVC) on a Refueling Outage (RO) frequency.

Valves 1(2)-CKV-3-864
Check Valve Bi-directional Close (BDC) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency:
Exercising these valves to their safeguard position requires operating the AFW pumps at full flow to the steam generators while the steam generators are pressurized. The resulting introduction of cold water into the steam generator will cause undesirable thermal fatigue cycles on the feedwater piping and SG feedwater nozzles and will cause level transients due to SG shrink that could result in unit trip and unnecessary actuation of the safety injection system. Testing the valves during return to power operation during mid cycle shutdowns would delay startup of the plant because the test is performed in mode 3 in order to flow to the steam generators at full steam generator pressure. Valves 1(2)-CKV-3-805-A, 1(2)-CKV-3-806-B and 1(2)-CKV-3-810-S close test will be performed at the same frequency as the open test as allowed by ISTC-3522(a).

Deferred Test Justification: DTJ-08

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-62-84-A	PZR AUXILARY SPRAY LINE ISOLATION	1-47W809-1 / B-2	B	Active	1	3	GL	AO
2-FCV-62-84-A	PZR AUXILARY SPRAY LINE ISOLATION	2-47W809-1 / B-2	B	Active	1	3	GL	AO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.
Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.
Fail Safe Close (FSC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.
Full stroke exercise with stroke time open (STO) on a Cold Shutdown (CSD) frequency.
Fail Safe Close (FSC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising this valve during power operation results in initiation of auxiliary RCS spray. This causes a quenching effect on the Pressurizer steam volume, resulting in a drop in RCS pressure and an increase in Pressurizer level. Actuation of auxiliary spray flow also adversely impacts the fatigue evaluation, which accounts for and limits the number of thermal stress cycles to be experienced by the nozzles associated with auxiliary spray.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-09

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-32-293	CONTROL AIR CNTMT CHECK	1-47W848-1 / A-9	A/C	Active	2	2	CK	SA
1-CKV-32-303-A	ESSENT CNTL AIR CNTMT CHECK	1-47W848-1 / C-9	A/C	Active	2	2	CK	SA
1-CKV-32-313-B	ESSENT CNTL AIR CNTMT CHECK	1-47W848-1 / D-9	A/C	Active	2	2	CK	SA
1-FCV-32-102-B	ESSENT CONTROL AIR TR B CNTMT ISOL	1-47W848-1 / D-9	A	Active	2	2	GL	AO
1-FCV-32-110-A	CONTROL AIR CNTMT ISOL	1-47W848-1 / A-9	A	Active	2	2	GL	AO
1-FCV-32-80-A	ESSENT CONTROL AIR TR A CNTMT ISOL	1-47W848-1 / C-9	A	Active	2	2	GL	AO
2-CKV-32-323-B	ESSENT CNTL AIR CNTMT CHECK	2-47W848-1 / E-10	A/C	Active	2	2	CK	SA
2-CKV-32-333-A	ESSENT CNTL AIR CNTMT CHECK	2-47W848-1 / G-10	A/C	Active	2	2	CK	SA
2-CKV-32-343	CONTROL AIR CNTMT CHECK	2-47W848-1 / H-10	A/C	Active	2	2	CK	SA
2-FCV-32-103-B	ESSENT CONTROL AIR TR B CNTMT ISOL	2-47W848-1 / E-9	A	Active	2	2	GL	AO
2-FCV-32-111-B	CONTROL AIR CNTMT ISOL	2-47W848-1 / H-9	A	Active	2	2	GL	AO
2-FCV-32-81-A	ESSENT CONTROL AIR TR A CNTMT ISOL	2-47W848-1 / G-9	A	Active	2	2	GL	AO

Required Test Frequency:

Valves 1-CKV-32-293, 1-CKV-32-303-A, 1-CKV-32-313-B, 2-CKV-32-343, 2-CKV-32-333-A, 2-CKV-32-323-B
Check Valve Closure (CVC) on a Quarterly (Q) frequency.

Valves 1-CKV-32-293, 1-CKV-32-303-A, 1-CKV-32-313-B, 2-CKV-32-343, 2-CKV-32-333-A, 2-CKV-32-323-B
Check Valve Bi-directional Open (BDO) on a Quarterly (Q) frequency.

Valves 1-FCV-32-80-A, 1-FCV-32-102-B, 1-FCV-32-110-A, 2-FCV-32-81-A, 2-FCV-32-103-B, 2 -FCV-32-111-B
Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Valves 1-FCV-32-80-A, 1-FCV-32-102-B, 1-FCV-32-110-A, 2-FCV-32-81-A, 2-FCV-32-103-B, 2 -FCV-32-111-B
Fail Safe Close (FSC) on a Quarterly (Q) frequency.

Appendix F - Deferred Test Justifications

Page 11 of 37

Deferred Test Frequency:	Valves 1-CKV-32-293, 1-CKV-32-303-A, 1-CKV-32-313-B, 2-CKV-32-343, 2-CKV-32-333-A, 2-CKV-32-323-B Check Valve Closure (CVC) on a Cold Shutdown (CSD) frequency. Valves 1-CKV-32-293, 1-CKV-32-303-A, 1-CKV-32-313-B, 2-CKV-32-343, 2-CKV-32-333-A, 2-CKV-32-323-B Check Valve Bi-directional Open (BDO) on a Cold Shutdown (CSD) frequency. Valves 1-FCV-32-80-A, 1-FCV-32-102-B, 1-FCV-32-110-A, 2-FCV-32-81-A, 2-FCV-32-103-B, 2 -FCV-32-111-B Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency. Valves 1-FCV-32-80-A, 1-FCV-32-102-B, 1-FCV-32-110-A, 2-FCV-32-81-A, 2-FCV-32-103-B, 2 -FCV-32-111-B Fail Safe Close (FSC) on a Cold Shutdown (CSD) frequency.
Justification for Deferred Test Frequency:	Exercising these valves to the closed position interrupts the air supply to a number of critical instruments and valves inside containment. Failure of these valves to reopen could cause unstable operation and unit trip by allowing all of the valves and instruments to assume their failed condition.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-10

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-61-658	ICE CONDENSER FLOOR DRAIN GATE 1	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-659	ICE CONDENSER FLOOR DRAIN GATE 2	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-660	ICE CONDENSER FLOOR DRAIN GATE 3	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-661	ICE CONDENSER FLOOR DRAIN GATE 4	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-662	ICE CONDENSER FLOOR DRAIN GATE 5	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-663	ICE CONDENSER FLOOR DRAIN GATE 6	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-664	ICE CONDENSER FLOOR DRAIN GATE 7	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-665	ICE CONDENSER FLOOR DRAIN GATE 8	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-666	ICE CONDENSER FLOOR DRAIN GATE 9	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-667	ICE CONDENSER FLOOR DRAIN GATE 10	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-668	ICE CONDENSER FLOOR DRAIN GATE 11	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-669	ICE CONDENSER FLOOR DRAIN GATE 12	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-670	ICE CONDENSER FLOOR DRAIN GATE 13	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-671	ICE CONDENSER FLOOR DRAIN GATE 14	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-672	ICE CONDENSER FLOOR DRAIN GATE 15	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-673	ICE CONDENSER FLOOR DRAIN GATE 16	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-674	ICE CONDENSER FLOOR DRAIN GATE 17	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-675	ICE CONDENSER FLOOR DRAIN GATE 18	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-676	ICE CONDENSER FLOOR DRAIN GATE 19	1-47W814-2 / D-12	C	Active	3	12	CK	SA
1-CKV-61-677	ICE CONDENSER FLOOR DRAIN GATE 20	1-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-658	ICE CONDENSER FLOOR DRAIN GATE 1	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-659	ICE CONDENSER FLOOR DRAIN GATE 2	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-660	ICE CONDENSER FLOOR DRAIN GATE 3	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-661	ICE CONDENSER FLOOR DRAIN GATE 4	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-662	ICE CONDENSER FLOOR DRAIN GATE 5	2-47W814-2 / D-12	C	Active	3	12	CK	SA

Deferred Test Justification: DTJ-10

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
2-CKV-61-663	ICE CONDENSER FLOOR DRAIN GATE 6	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-664	ICE CONDENSER FLOOR DRAIN GATE 7	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-665	ICE CONDENSER FLOOR DRAIN GATE 8	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-666	ICE CONDENSER FLOOR DRAIN GATE 9	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-667	ICE CONDENSER FLOOR DRAIN GATE 10	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-668	ICE CONDENSER FLOOR DRAIN GATE 11	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-669	ICE CONDENSER FLOOR DRAIN GATE 12	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-670	ICE CONDENSER FLOOR DRAIN GATE 13	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-671	ICE CONDENSER FLOOR DRAIN GATE 14	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-672	ICE CONDENSER FLOOR DRAIN GATE 15	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-673	ICE CONDENSER FLOOR DRAIN GATE 16	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-674	ICE CONDENSER FLOOR DRAIN GATE 17	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-675	ICE CONDENSER FLOOR DRAIN GATE 18	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-676	ICE CONDENSER FLOOR DRAIN GATE 19	2-47W814-2 / D-12	C	Active	3	12	CK	SA
2-CKV-61-677	ICE CONDENSER FLOOR DRAIN GATE 20	2-47W814-2 / D-12	C	Active	3	12	CK	SA

Required Test Frequency: Check Valve Open (CVO) on a Quarterly (Q) frequency.
Check Valve Bi-directional Close (BDC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Open (CVO) on a Refueling Outage (RO) frequency.
Check Valve Bi-directional Close (BDC) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: Valves are installed on the end of the ice condenser drains inside the polar crane wall in the lower compartment. Radiation levels in this area during operation prevent entry. The drains are located some distance from the floor, requiring the construction of scaffolding to reach. Therefore it is impractical to try to test the valves during a cold shutdown.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-11

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-62-504-S	RWST TO CVCS CHG PUMP SUCTION CHECK	1-47W809-1 / H-10	C	Active	2	8	CK	SA
1-CKV-62-525-A	CCP 1A-A DISCHARGE CHECK	1-47W809-1 / G-9	A/C	Active	2	4	CK	SA
1-CKV-62-532-B	CCP 1B-B DISCHARGE CHECK	1-47W809-1 / F-9	A/C	Active	2	4	CK	SA
1-CKV-63-510-S	RWST TO SAFETY INJ PUMP SUCTION CHECK	1-47W811-1 / D-10	C	Active	2	8	CK	SA
1-CKV-63-524-A	SAFETY INJ PUMP 1A-A DISCHARGE CHECK	1-47W811-1 / F-8	A/C	Active	2	4	CK	SA
1-CKV-63-526-B	SAFETY INJ PUMP 1B-B DISCHARGE CHECK	1-47W811-1 / D-8	A/C	Active	2	4	CK	SA
1-CKV-63-543-A	HOT LEG 1 SAFETY INJ CHECK	1-47W811-1 / F-3	A/C	Active	1	2	CK	SA
1-CKV-63-545-A	HOT LEG 3 SAFETY INJ CHECK	1-47W811-1 / F-3	A/C	Active	1	2	CK	SA
1-CKV-63-547-B	HOT LEG 2 SAFETY INJ CHECK	1-47W811-1 / E-3	A/C	Active	1	2	CK	SA
1-CKV-63-549-B	HOT LEG 4 SAFETY INJ CHECK	1-47W811-1 / E-3	A/C	Active	1	2	CK	SA
1-CKV-63-551-S	COLD LEG 1 SAFETY INJ CHECK	1-47W811-1 / H-1	A/C	Active	1	2	CK	SA
1-CKV-63-553-S	COLD LEG 2 SAFETY INJ CHECK	1-47W811-1 / H-3	A/C	Active	1	2	CK	SA
1-CKV-63-555-S	COLD LEG 3 SAFETY INJ CHECK	1-47W811-1 / G-3	A/C	Active	1	2	CK	SA
1-CKV-63-557-S	COLD LEG 4 SAFETY INJ CHECK	1-47W811-1 / G-2	A/C	Active	1	2	CK	SA
1-CKV-63-558-B	HOT LEG 4 SAFETY INJ CHECK	1-47W811-1 / E-2	A/C	Active	1	6	CK	SA
1-CKV-63-559-B	HOT LEG 2 SAFETY INJ CHECK	1-47W811-1 / E-1	A/C	Active	1	6	CK	SA
1-CKV-63-581-S	BORON INJ LINE CHECK	1-47W811-1 / C-6	A/C	Active	1	3	CK	SA
1-CKV-63-586-S	COLD LEG 1 BORON INJ CHECK	1-47W811-1 / E-1	A/C	Active	1	1.5	CK	SA
1-CKV-63-587-S	COLD LEG 2 BORON INJ CHECK	1-47W811-1 / D-2	A/C	Active	1	1.5	CK	SA
1-CKV-63-588-S	COLD LEG 3 BORON INJ CHECK	1-47W811-1 / E-2	A/C	Active	1	1.5	CK	SA
1-CKV-63-589-S	COLD LEG 4 BORON INJ CHECK	1-47W811-1 / F-2	A/C	Active	1	1.5	CK	SA
2-CKV-62-504-S	RWST TO CVCS CHG PUMP SUCTION CHECK	2-47W809-1 / G-9	C	Active	2	8	CK	SA
2-CKV-62-525-A	CCP 2A-A DISCHARGE CHECK	2-47W809-1 / G-8	A/C	Active	2	4	CK	SA
2-CKV-62-532-B	CCP 2B-B DISCHARGE CHECK	2-47W809-1 / F-8	A/C	Active	2	4	CK	SA
2-CKV-63-510-S	RWST TO SAFETY INJ PUMP SUCTION CHECK	2-47W811-1 / D-9	C	Active	2	8	CK	SA
2-CKV-63-524-A	SAFETY INJ PUMP 2A-A DISCHARGE CHECK	2-47W811-1 / E-8	A/C	Active	2	4	CK	SA
2-CKV-63-526-B	SAFETY INJ PUMP 2B-B DISCHARGE CHECK	2-47W811-1 / D-8	A/C	Active	2	4	CK	SA
2-CKV-63-543-A	HOT LEG 1 SAFETY INJ CHECK	2-47W811-1 / F-3	A/C	Active	1	2	CK	SA
2-CKV-63-545-A	HOT LEG 3 SAFETY INJ CHECK	2-47W811-1 / F-3	A/C	Active	1	2	CK	SA
2-CKV-63-547-B	HOT LEG 2 SAFETY INJ CHECK	2-47W811-1 / E-3	A/C	Active	1	2	CK	SA
2-CKV-63-549-B	HOT LEG 4 SAFETY INJ CHECK	2-47W811-1 / E-3	A/C	Active	1	2	CK	SA

Deferred Test Justification: DTJ-11

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
2-CKV-63-551-S	COLD LEG 1 SAFETY INJ CHECK	2-47W811-1 / H-1	A/C	Active	1	2	CK	SA
2-CKV-63-553-S	COLD LEG 2 SAFETY INJ CHECK	2-47W811-1 / H-3	A/C	Active	1	2	CK	SA
2-CKV-63-555-S	COLD LEG 3 SAFETY INJ CHECK	2-47W811-1 / G-3	A/C	Active	1	2	CK	SA
2-CKV-63-557-S	COLD LEG 4 SAFETY INJ CHECK	2-47W811-1 / G-2	A/C	Active	1	2	CK	SA
2-CKV-63-558-B	HOT LEG 4 SAFETY INJ CHECK	2-47W811-1 / E-2	A/C	Active	1	6	CK	SA
2-CKV-63-559-B	HOT LEG 2 SAFETY INJ CHECK	2-47W811-1 / E-1	A/C	Active	1	6	CK	SA
2-CKV-63-581-S	BORON INJ LINE CHECK	2-47W811-1 / C-6	A/C	Active	1	3	CK	SA
2-CKV-63-586-S	COLD LEG 1 BORON INJ CHECK	2-47W811-1 / E-1	A/C	Active	1	1.5	CK	SA
2-CKV-63-587-S	COLD LEG 2 BORON INJ CHECK	2-47W811-1 / D-2	A/C	Active	1	1.5	CK	SA
2-CKV-63-588-S	COLD LEG 3 BORON INJ CHECK	2-47W811-1 / E-2	A/C	Active	1	1.5	CK	SA
2-CKV-63-589-S	COLD LEG 4 BORON INJ CHECK	2-47W811-1 / F-2	A/C	Active	1	1.5	CK	SA

Required Test Frequency: Check Valve Open (CVO) on a Quarterly (Q) frequency.
Check Valve Closure (CVC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Open (CVO) on a Refueling Outage (RO) frequency.
Check Valve Closure (CVC) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: The centrifugal charging pumps cannot be run at full flow through their associated valves without causing undesirable RCS temperature and/or boron concentration changes resulting in changes in reactivity during operations which could result in a plant trip and subsequent safety injection actuation or causing undesirable thermal cyclic stresses which would eventually use all of the design basis for thermal cycles due to a Safety Injection. The safety injection pumps do NOT develop sufficient head to deliver flow to the reactor vessel during normal operation. Letdown capacity precludes testing during MODE 5 without compromising cold over pressure protection provisions. Full stroke exercising 1(2)-CKV-62-504-S or 1(2)-CKV-63-510-S to the closed position renders both trains of their respective systems inoperable.

Deferred Test Justification: DTJ-12

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-67-123-B	CNTMT SPRAY HX 1B-B ERCW SUPPLY	1-47W845-2 / D-9	B	Active	3	18	BF	MO
1-FCV-67-124-B	CNTMT SPRAY HX 1B-B ERCW RETURN	1-47W845-2 / E-8	B	Active	3	18	BF	MO
1-FCV-67-125-A	CNTMT SPRAY HX 1A-A ERCW SUPPLY	1-47W845-2 / C-9	B	Active	3	18	BF	MO
1-FCV-67-126-A	CNTMT SPRAY HX 1A-A ERCW RETURN	1-47W845-2 / D-7	B	Active	3	18	BF	MO
2-FCV-67-123-B	CNTMT SPRAY HX 2B-B ERCW SUPPLY	2-47W845-2 / D-2	B	Active	3	18	BF	MO
2-FCV-67-124-B	CNTMT SPRAY HX 2B-B ERCW RETURN	2-47W845-2 / E-3	B	Active	3	18	BF	MO
2-FCV-67-125-A	CNTMT SPRAY HX 2A-A ERCW SUPPLY	2-47W845-2 / C-3	B	Active	3	18	BF	MO
2-FCV-67-126-A	CNTMT SPRAY HX 2A-A ERCW RETURN	2-47W845-2 / D-4	B	Active	3	18	BF	MO

Required Test Frequency: Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time open (STO) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Opening these valves allows river water from ERCW to enter the heat exchangers. As a result, the lay-up water chemistry [such as chloride content] cannot be maintained without draining and refilling the heat exchangers followed by recirculating the water through a portable demineralizer.

Deferred Test Justification: DTJ-13

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-62-930	EMERGENCY BORATION CHECK	1-47W809-2 / B-4	C	Active	3	3	CK	SA
2-CKV-62-930	EMERGENCY BORATION CHECK	2-47W809-2 / B-4	C	Active	3	3	CK	SA

Required Test Frequency: Check Valve Open (CVO) on a Quarterly (Q) frequency.
Check Valve Bi-directional Close (BDC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Open (CVO) on a Refueling Outage (RO) frequency.
Check Valve Bi-directional Close (BDC) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: Passing emergency boration flow through this valve during operation results in undesirable boration of the RCS. This could cause undesirable changes in rod position to compensate for the negative reactivity insertion. Testing during cold shutdown would also cause a negative reactivity insertion which could adversely affect the length of time required to dilute to an operating boron concentration or adversely impact the reactivity balance during shutdown conditions.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-14

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-62-61-B	CVCS SEAL WATER RETURN HEADER ISOL	1-47W809-1 / B-7	A	Active	2	4	GA	MO
1-FCV-62-63-A	CVCS SEAL WATER RETURN HEADER ISOL	1-47W809-1 / B-8	A	Active	2	4	GA	MO
2-FCV-62-61-B	CVCS SEAL WATER RETURN HEADER ISOL	2-47W809-1 / B-6	A	Active	2	4	GA	MO
2-FCV-62-63-A	CVCS SEAL WATER RETURN HEADER ISOL	2-47W809-1 / B-7	A	Active	2	4	GA	MO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising valves during operation would cause loss of seal water return to and potentially damage the reactor coolant pump seals, resulting in high seal losses with resultant maintenance, contamination and clean up problems.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-15

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-62-69-S	CVCS LETDOWN ISOLATION	1-47W809-1 / A-2	B	Active	1	3	GL	AO
1-FCV-62-70-S	CVCS LETDOWN ISOLATION	1-47W809-1 / A-2	B	Active	1	3	GL	AO
1-FCV-62-77-B	CVCS LP LETDOWN ISOL	1-47W809-1 / A-7	A	Active	2	2	GL	AO
1-FCV-62-90-A	CVCS CHARGING HEADER ISOLATION	1-47W809-1 / D-8	B	Active	2	3	GA	MO
1-FCV-62-91-B	CVCS CHARGING HEADER ISOLATION	1-47W809-1 / D-8	B	Active	2	3	GA	MO
2-FCV-62-69-S	CVCS LETDOWN ISOLATION	2-47W809-1 / A-2	B	Active	1	3	GL	AO
2-FCV-62-70-S	CVCS LETDOWN ISOLATION	2-47W809-1 / A-2	B	Active	1	3	GL	AO
2-FCV-62-77-B	CVCS LP LETDOWN ISOL	2-47W809-1 / A-7	A	Active	2	2	GL	AO
2-FCV-62-90-A	CVCS CHARGING HEADER ISOLATION	2-47W809-1 / D-7	B	Active	2	3	GA	MO
2-FCV-62-91-B	CVCS CHARGING HEADER ISOLATION	2-47W809-1 / D-7	B	Active	2	3	GA	MO

Required Test Frequency:
All Valves
Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Valves 1(2)-FCV-62-69, 1(2)-FCV-62-70, 1(2)-FCV-62-77
Fail Safe Close (FSC) on a Quarterly (Q) frequency.

Deferred Test Frequency:
All Valves
Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Valves 1(2)-FCV-62-69, 1(2)-FCV-62-70, 1(2)-FCV-62-77
Fail Safe Close (FSC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency:
Exercising these valves to the position required to fulfill their safety function causes a loss of flow in either the charging or letdown portions of the Chemical and Volume Control System. As described in the Westinghouse letter to TVA, WAT D 8347 (RIMS T33 911231 810), isolation of the charging and letdown lines during operation can result in a thermal transient at the charging nozzle of from 500 degrees F to 70 degrees F in a two to five minute period. This results in an increase in the fatigue usage factor beyond that assumed for the original design analysis of these systems.

Deferred Test Justification: DTJ-16

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-62-1228-A	CCP SUCTION TO VCT VENT HDR ISOL	1-47W809-1 / C-10	B	Active	2	1	GL	AO
1-FCV-62-1229-B	CCP SUCTION TO VCT VENT HDR ISOL	1-47W809-1 / C-10	B	Active	2	1	GL	AO
1-LCV-62-132-A	VOLUME CONTROL TANK OUTLET ISOLATION	1-47W809-1 / D-10	B	Active	2	4	GA	MO
1-LCV-62-133-B	VOLUME CONTROL TANK OUTLET ISOLATION	1-47W809-1 / D-10	B	Active	2	4	GA	MO
1-LCV-62-135-A	RWST CVCS SUPPLY HDR ISOLATION	1-47W809-1 / H-10	B	Active	2	8	GA	MO
1-LCV-62-136-B	RWST CVCS SUPPLY HDR ISOLATION	1-47W809-1 / H-10	B	Active	2	8	GA	MO
2-FCV-62-1228-A	CCP SUCTION TO VCT VENT HDR ISOL	2-47W809-1 / C-10	B	Active	2	1	GL	AO
2-FCV-62-1229-B	CCP SUCTION TO VCT VENT HDR ISOL	2-47W809-1 / C-10	B	Active	2	1	GL	AO
2-LCV-62-132-A	VOLUME CONTROL TANK OUTLET ISOLATION	2-47W809-1 / E-9	B	Active	2	4	GA	MO
2-LCV-62-133-B	VOLUME CONTROL TANK OUTLET ISOLATION	2-47W809-1 / E-9	B	Active	2	4	GA	MO
2-LCV-62-135-A	RWST CVCS SUPPLY HDR ISOLATION	2-47W809-1 / H-9	B	Active	2	8	GA	MO
2-LCV-62-136-B	RWST CVCS SUPPLY HDR ISOLATION	2-47W809-1 / H-9	B	Active	2	8	GA	MO

Required Test Frequency:

Valves 1(2)-FCV-62-1228, 1(2)-FCV-62-1229, 1(2)-LCV-62-132, 1(2)-LCV-62-133
Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Valves 1(2)-FCV-62-1228, 1(2)-FCV-62-1229
Fail Safe Close (FSC) on a Quarterly (Q) frequency.

Valves 1(2)-LCV-62-135, 1(2)-LCV-62-136
Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.

Deferred Test Frequency:

Valves 1(2)-FCV-62-1228, 1(2)-FCV-62-1229, 1(2)-LCV-62-132, 1(2)-LCV-62-133
Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Valves 1(2)-FCV-62-1228, 1(2)-FCV-62-1229
Fail Safe Close (FSC) on a Cold Shutdown (CSD) frequency.

Valves 1(2)-LCV-62-135, 1(2)-LCV-62-136
Full stroke exercise with stroke time open (STO) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency:

Cycling these valves during operation results in the charging pumps taking suction from the RWST for normal charging requirements. This will result in addition of borated water which has a different boron concentration than that in the reactor coolant system since the likelihood of both the RWST and the RCS being at the same boron concentration at the same time is very small. The change in boron concentration in the RCS caused by charging from the RWST during testing would cause unstable unit operation, especially if any of the valves fail to return to their normal position. The FCVs are electrically interlocked with the LCVs in such a manner that if they are stroked independently of the LCVs, position indication and consequently the ability to time the valves is lost.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-17

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-74-1-A	LOOP 4 HOT LEG TO RHR SUCTION	1-47W810-1 / G-2	A	Active	1	14	GA	MO
1-FCV-74-2-B	LOOP 4 HOT LEG TO RHR SUCTION	1-47W810-1 / G-3	A	Active	1	14	GA	MO
1-FCV-74-8-A	1-FCV-74-2 BYPASS RHR SUCTION	1-47W810-1 / G-3	A	Active	1	10	GA	MO
1-FCV-74-9-B	1-FCV-74-1 BYPASS RHR SUCTION	1-47W810-1 / G-2	A	Active	1	10	GA	MO
2-FCV-74-1-A	LOOP 4 HOT LEG TO RHR SUCTION	2-47W810-1 / G-2	A	Active	1	14	GA	MO
2-FCV-74-2-B	LOOP 4 HOT LEG TO RHR SUCTION	2-47W810-1 / G-3	A	Active	1	14	GA	MO
2-FCV-74-8-A	2-FCV-74-2 BYPASS RHR SUCTION	2-47W810-1 / H-3	A	Active	1	10	GA	MO
2-FCV-74-9-B	2-FCV-74-1 BYPASS RHR SUCTION	2-47W810-1 / G-2	A	Active	1	10	GA	MO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.
Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.
Full stroke exercise with stroke time open (STO) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising the valve during operation would result in over pressurizing the RHR piping, causing a loss of both trains of a safety system.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-18

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-63-502-S	RWST TO RHR SUCTION CHECK	1-47W811-1 / F-10	C	Active	2	12	CK	SA
1-CKV-63-632-A	COLD LEG 2 RHR INJ LINE CHECK	1-47W811-1 / H-2	A/C	Active	1	6	CK	SA
1-CKV-63-633-B	COLD LEG 1 RHR INJ LINE CHECK	1-47W811-1 / G-1	A/C	Active	1	6	CK	SA
1-CKV-63-634-A	COLD LEG 3 RHR INJ LINE CHECK	1-47W811-1 / G-3	A/C	Active	1	6	CK	SA
1-CKV-63-635-B	COLD LEG 4 RHR INJ LINE CHECK	1-47W811-1 / G-1	A/C	Active	1	6	CK	SA
1-CKV-63-640-S	HOT LEG 1 RHR INJ LINE CHECK	1-47W811-1 / G-3	A/C	Active	1	8	CK	SA
1-CKV-63-641-S	1-CKV-63-641HOT LEG 1 INJ HEADERCHECK	1-47W811-1 / F-1	A/C	Active	1	6	CK	SA
1-CKV-63-643-S	HOT LEG 3 RHR INJ LINE CHECK	1-47W811-1 / F-3	A/C	Active	1	8	CK	SA
1-CKV-63-644-S	HOT LEG 3 INJ HEADER CHECK	1-47W811-1 / D-2	A/C	Active	1	6	CK	SA
1-CKV-74-514-A	RHR PUMP 1A-A DISCHARGE CHECK	1-47W810-1 / F-8	C	Active	2	8	CK	SA
1-CKV-74-515-B	RHR PUMP 1B-B DISCHARGE CHECK	1-47W810-1 / C-8	C	Active	2	8	CK	SA
2-CKV-63-502-S	RWST TO RHR SUCTION CHECK	2-47W811-1 / F-9	C	Active	2	12	CK	SA
2-CKV-63-632-A	COLD LEG 2 RHR INJ LINE CHECK	2-47W811-1 / G-2	A/C	Active	1	6	CK	SA
2-CKV-63-633-B	COLD LEG 1 RHR INJ LINE CHECK	2-47W811-1 / G-1	A/C	Active	1	6	CK	SA
2-CKV-63-634-A	COLD LEG 3 RHR INJ LINE CHECK	2-47W811-1 / G-3	A/C	Active	1	6	CK	SA
2-CKV-63-635-B	COLD LEG 4 RHR INJ LINE CHECK	2-47W811-1 / G-1	A/C	Active	1	6	CK	SA
2-CKV-63-640-S	HOT LEG 1 RHR INJ LINE CHECK	2-47W811-1 / G-3	A/C	Active	1	8	CK	SA
2-CKV-63-641-S	2-CKV-63-641 HOT LEG 1 INJ HEADER CHECK	2-47W811-1 / F-1	A/C	Active	1	6	CK	SA
2-CKV-63-643-S	HOT LEG 3 RHR INJ LINE CHECK	2-47W811-1 / F-3	A/C	Active	1	8	CK	SA
2-CKV-63-644-S	HOT LEG 3 INJ HEADER CHECK	2-47W811-1 / D-2	A/C	Active	1	6	CK	SA
2-CKV-74-514-A	RHR PUMP 2A-A DISCHARGE CHECK	2-47W810-1 / F-8	C	Active	2	8	CK	SA
2-CKV-74-515-B	RHR PUMP 2B-B DISCHARGE CHECK	2-47W810-1 / C-8	C	Active	2	8	CK	SA

Required Test Frequency: Check Valve Closure (CVC) on a Quarterly (Q) frequency.
Check Valve Open (CVO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Closure (CVC) on a Refueling Outage (RO) frequency.
Check Valve Open (CVO) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: The RHR pumps do NOT develop sufficient head to open the valves during power operation. With the RHR pump suction being supplied from the normal loop 4 suction path during shutdown and discharging to a closed vessel, the pumps cannot develop sufficient flow to satisfy the full flow requirements for the check valves. In order to achieve full flow, the vessel must be open and the pump suction taken from the RWST. Valves 1(2)-CKV-74-514-A and 1(2)-CKV-74-515-B cannot be exposed to the pressure of a running RHR pump during plant operation without opening 1(2)-HCV-74-36 and 1(2)-HCV-74-37. Opening these valves or back seating 1(2)-CKV-63-502S adversely affects both trains of a safety system.

Deferred Test Justification: DTJ-19

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-63-1-A	RWST TO RHR SUCTION	1-47W811-1 / E-10	B	Active	2	14	GA	MO
1-FCV-63-5-B	RWST TO SI PUMP SUCTION ISOL	1-47W811-1 / D-10	B	Active	2	6	GA	MO
2-FCV-63-1-A	RWST TO RHR SUCTION	2-47W811-1 / E-10	B	Active	2	14	GA	MO
2-FCV-63-5-B	RWST TO SI PUMP SUCTION ISOL	2-47W811-1 / D-9	B	Active	2	6	GA	MO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising valve during operation results in losing suction from RWST to both trains of a safety system. If valve fails to reopen both trains of the affected safety system would be made inoperable.

Deferred Test Justification: DTJ-20

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-63-3-A	SI PUMP MINI FLOW RECIRC HDR TO RWST ISOL	1-47W811-1 / E-8	B	Active	2	2	GL	MO
2-FCV-63-3-A	SI PUMP MINI FLOW RECIRC HDR TO RWST ISOL	2-47W811-1 / E-7	B	Active	2	2	GL	MO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising valve during operation results in isolating the recirculation line to both trains of safety injection pumps. Failure of the valve to reopen would make both trains of a safety system inoperable.

Deferred Test Justification: DTJ-21

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-63-11-B	RHR HX 1B-B OUTLET TO SIP 1B-B SUCT ISOL	1-47W811-1 / H-9	B	Active	2	8	GA	MO
1-FCV-63-8-A	RHR PMP 1A-A TO CHG PMP & SIP 1A-A SUCT ISOL	1-47W811-1 / H-9	B	Active	2	8	GA	MO
2-FCV-63-11-B	RHR HX 2B-B OUTLET TO SIP 2B-B SUCT ISOL	2-47W811-1 / F-9	B	Active	2	8	GA	MO
2-FCV-63-8-A	RHR PMP 2A-A TO CHG PMP & SIP 2A-A SUCT ISOL	2-47W811-1 / G-9	B	Active	2	8	GA	MO

Required Test Frequency: Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time open (STO) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: Both valves are electrically interlocked with the safety injection pump recirculation isolation valves 1(2)-FCV-63-3-A, 1(2)-FCV-63-4-B and 1(2)-FCV-63-175-B in such a manner that both trains of the Safety Injection System will have their minimum flow recirculation path isolated to cycle either valve. Isolation of these recirculation paths adversely affects both trains of a safety system and could cause failure of both trains. Additionally, the valves are interlocked with the containment sump suction valves in such a manner that they must be fully open to allow these valves to operate. Opening the containment sump valves during operation requires either draining an extensive portion of the RHR system or allowing it to drain to the containment sump. Draining and refilling these lines requires a considerable amount of time and could extend forced outage duration. Allowing the affected piping to drain to the sump requires extensive cleanup time. Therefore testing during forced outages is NOT practical. [See also DTJ-24]

Deferred Test Justification: DTJ-22

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-63-22-B	SI PUMPS TO COLD LEG INJECTION	1-47W811-1 / E-6	B	Active	2	4	GA	MO
2-FCV-63-22-B	SI PUMPS TO COLD LEG INJECTION	2-47W811-1 / E-6	B	Active	2	4	GA	MO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising valve during operation isolates both trains of safety injection from their normal flow path to the cold legs. Failure of the valve to reopen results in total loss of system function.

Deferred Test Justification: DTJ-23

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-63-25-B	SIS BORON INJ TANK OUTLET ISOLATION	1-47W811-1 / B-7	B	Active	2	4	GA	MO
1-FCV-63-26-A	SIS BORON INJ TANK OUTLET ISOLATION	1-47W811-1 / B-7	B	Active	2	4	GA	MO
2-FCV-63-25-B	SIS BORON INJ TANK OUTLET ISOLATION	2-47W811-1 / B-7	B	Active	2	4	GA	MO
2-FCV-63-26-A	SIS BORON INJ TANK OUTLET ISOLATION	2-47W811-1 / B-7	B	Active	2	4	GA	MO

Required Test Frequency: Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time open (STO) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Charging header pressure during normal operation exceeds the pressure downstream of the check valves associated with these FCVs. If the FCVs are opened for testing, the pressure in the charging header will initiate flow through the high head safety injection system piping. This will:

1) Cause Pressurizer level transients, due to the additional water being added to the RCS, which will cause unstable operation and may result in unit trip and subsequent initiation of the entire safety injection system.

2) Cause a thermal stress transient in the associated piping which will have to be counted as one of the limited number of safety injection system actuations permitted during the design life of the plant.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-24

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-63-72-A	CONTAINMENT SUMP TO RHR PUMP 1A-A ISOL	1-47W811-1 / H-7	B	Active	2	18	GA	MO
1-FCV-63-73-B	CONTAINMENT SUMP TO RHR PUMP 1B-B ISOL	1-47W811-1 / H-7	B	Active	2	18	GA	MO
1-FCV-72-44-A	CNTMT SUMP TO CS PUMP 1A-A SUCTION	1-47W812-1 / G-3	B	Active	2	12	GA	MO
1-FCV-72-45-B	CNTMT SUMP TO CS PUMP 1B-B SUCTION	1-47W812-1 / H-3	B	Active	2	12	GA	MO
2-FCV-63-72-A	CONTAINMENT SUMP TO RHR PUMP 2A-A ISOL	2-47W811-1 / H-7	B	Active	2	18	GA	MO
2-FCV-63-73-B	CONTAINMENT SUMP TO RHR PUMP 2B-B ISOL	2-47W811-1 / G-7	B	Active	2	18	GA	MO
2-FCV-72-44-A	CNTMT SUMP TO CS PUMP 2A-A SUCTION	2-47W812-1 / G-3	B	Active	2	12	GA	MO
2-FCV-72-45-B	CNTMT SUMP TO CS PUMP 2B-B SUCTION	2-47W812-1 / H-3	B	Active	2	12	GA	MO

Required Test Frequency: Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time open (STO) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: Opening the containment sump isolation valves during operation requires either draining an extensive portion of the RHR and CS systems or allowing it to drain to the containment sump. Draining and refilling these lines requires a considerable amount of time and could extend forced outage duration. Allowing the affected piping to drain to the sump requires extensive cleanup time. Therefore testing during forced outages is NOT practical. [See also DTJ-21]

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-25

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-63-172-B	RHR TO HOT LEG 1 & 3 INJECTION ISOLATION	1-47W811-1 / F-6	B	Active	2	12	GA	MO
1-FCV-63-93-A	RHR TO COLD LEG 2 & 3 INJECTION ISOLATION	1-47W811-1 / G-7	B	Active	2	8	GA	MO
1-FCV-63-94-B	RHR TO COLD LEG 1 & 4 INJECTION ISOLATION	1-47W811-1 / G-7	B	Active	2	8	GA	MO
1-FCV-74-33-A	RHR HEAT EXCHANGER 1A OUTLET CROSSTIE	1-47W810-1 / E-4	B	Active	2	8	GA	MO
1-FCV-74-35-B	RHR HEAT EXCHANGER 1B OUTLET CROSSTIE	1-47W810-1 / C-4	B	Active	2	8	GA	MO
2-FCV-63-172-B	RHR TO HOT LEG 1 & 3 INJECTION ISOLATION	2-47W811-1 / F-6	B	Active	2	12	GA	MO
2-FCV-63-93-A	RHR TO COLD LEG 2 & 3 INJECTION ISOLATION	2-47W811-1 / G-6	B	Active	2	8	GA	MO
2-FCV-63-94-B	RHR TO COLD LEG 1 & 4 INJECTION ISOLATION	2-47W811-1 / G-6	B	Active	2	8	GA	MO
2-FCV-74-33-A	RHR HEAT EXCHANGER 2A OUTLET CROSSTIE	2-47W810-1 / E-4	B	Active	2	8	GA	MO
2-FCV-74-35-B	RHR HEAT EXCHANGER 2B OUTLET CROSSTIE	2-47W810-1 / C-4	B	Active	2	8	GA	MO

Required Test Frequency:

Valves 1(2)-FCV-63-172
Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.

Valves 1(2)-FCV-63-93, 1(2)-FCV-63-94, 1(2)-FCV-74-33, 1(2)-FCV-74-35
Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency:

Valves 1(2)-FCV-63-172
Full stroke exercise with stroke time open (STO) on a Cold Shutdown (CSD) frequency.

Valves 1(2)-FCV-63-93, 1(2)-FCV-63-94, 1(2)-FCV-74-33, 1(2)-FCV-74-35
Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency:

Closing any one of the four normally open valves causes operation in an unanalyzed condition by isolating two of the four cold legs from the RHR pumps. Opening 1(2)-FCV-63-172-B would require closure of 1(2)-FCV-74-33-A and 1(2)-FCV-63-35-B to avoid having RHR aligned to hot leg injection and cold leg injection simultaneously. Since these valves cannot be closed without affecting both trains of RHR, 1(2)-FCV-63-172-B cannot be opened.

Deferred Test Justification: DTJ-26

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FSV-68-394-A	REACTOR VESSEL HEAD VENT	1-47W813-1 / F-7	B	Active	2	1	GL	SO
1-FSV-68-395-B	REACTOR VESSEL HEAD VENT	1-47W813-1 / G-7	B	Active	2	1	GL	SO
2-FSV-68-394-A	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-7	B	Active	2	1	GL	SO
2-FSV-68-395-B	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-7	B	Active	2	1	GL	SO

Required Test Frequency: Full stroke exercise with stroke time open (STO) on a Quarterly (Q) frequency.
Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.
Fail Safe Close (FSC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time open (STO) on a Cold Shutdown (CSD) frequency.
Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.
Fail Safe Close (FSC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: These valves are solenoid to open and spring to close. With any single valve open for stroke time testing, the remaining valves are required to seat against full RCS pressure upstream with the downstream pressure at Pressurizer Relief Tank pressure. If the valves that remain closed are NOT well seated, stroking of a single valve to the open position while at power could result in leakage from the RCS in excess of the TS limits or depressurization of the RCS. Failure of any single valve to reclose would leave a single valve to prevent leakage from the RCS.

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-27

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-FCV-67-103-B	LOWER CNTMT CLR HDR B ERCW RET ISOL	1-47W845-3 / E-7	A	Active	2	6	BF	MO
1-FCV-67-104-A	LOWER CNTMT CLR HDR B ERCW RET ISOL	1-47W845-3 / E-8	A	Active	2	6	BF	MO
1-FCV-67-105-B	LOWER CNTMT CLR HDR B ERCW SUP ISOL	1-47W845-3 / F-7	A	Active	2	6	BF	MO
1-FCV-67-107-A	LOWER CNTMT CLR HDR D ERCW SUP ISOL	1-47W845-3 / E-8	A	Active	2	6	BF	MO
1-FCV-67-111-B	LOWER CNTMT CLR HDR D ERCW RET ISOL	1-47W845-3 / D-7	A	Active	2	6	BF	MO
1-FCV-67-112-A	LOWER CNTMT CLR HDR D ERCW RET ISOL	1-47W845-3 / D-8	A	Active	2	6	BF	MO
1-FCV-67-113-B	LOWER CNTMT CLR HDR D ERCW SUP ISOL	1-47W845-3 / E-7	A	Active	2	6	BF	MO
1-FCV-67-83-B	LOWER CNTMT CLR HDR A ERCW SUP ISOL	1-47W845-3 / H-8	A	Active	2	6	BF	MO
1-FCV-67-87-A	LOWER CNTMT CLR HDR A ERCW RET ISOL	1-47W845-3 / H-7	A	Active	2	6	BF	MO
1-FCV-67-88-B	LOWER CNTMT CLR HDR A ERCW RET ISOL	1-47W845-3 / H-8	A	Active	2	6	BF	MO
1-FCV-67-89-A	LOWER CNTMT CLR HDR A ERCW SUP ISOL	1-47W845-3 / H-7	A	Active	2	6	BF	MO
1-FCV-67-91-B	LOWER CNTMT CLR HDR C ERCW SUP ISOL	1-47W845-3 / G-8	A	Active	2	6	BF	MO
1-FCV-67-95-A	LOWER CNTMT CLR HDR C ERCW RET ISOL	1-47W845-3 / F-7	A	Active	2	6	BF	MO
1-FCV-67-96-B	LOWER CNTMT CLR HDR C ERCW RET ISOL	1-47W845-3 / F-8	A	Active	2	6	BF	MO
1-FCV-67-97-A	LOWER CNTMT CLR HDR C ERCW SUP ISOL	1-47W845-3 / G-7	A	Active	2	6	BF	MO
1-FCV-67-99-A	LOWER CNTMT CLR HDR B ERCW SUP ISOL	1-47W845-3 / F-8	A	Active	2	6	BF	MO
1-FCV-70-100-A	RCP OIL COOLERS CCS SUPPLY	1-47W859-2 / G-3	A	Active	2	6	BF	MO
1-FCV-70-133-A	THERMAL BARRIER CCS SUPPLY	1-47W859-2 / H-3	B	Active	3	3	GA	MO
1-FCV-70-134-B	THERMAL BARRIER CCS SUPPLY	1-47W859-2 / H-3	A	Active	2	3	GA	MO
1-FCV-70-140-B	RCP OIL COOLER CCS SUPPLY	1-47W859-2 / G-3	A	Active	2	6	BF	MO
1-FCV-70-87-B	THERMAL BARRIER CCS RETURN	1-47W859-2 / H-9	A	Active	2	3	GA	MO
1-FCV-70-89-B	RCP OIL COOLER CCS RET HDR	1-47W859-2 / E-9	A	Active	2	6	BF	MO
1-FCV-70-90-A	THERMAL BARRIER CCS RETURN	1-47W859-2 / F-10	A	Active	2	3	GA	MO
1-FCV-70-92-A	RCP OIL COOLER CCS RETURN	1-47W859-2 / E-10	A	Active	2	6	BF	MO
2-FCV-67-103-B	LOWER CNTMT CLR HDR B ERCW RET ISOL	2-47W845-3 / E-7	A	Active	2	6	BF	MO
2-FCV-67-104-A	LOWER CNTMT CLR HDR B ERCW RET ISOL	2-47W845-3 / E-8	A	Active	2	6	BF	MO
2-FCV-67-105-B	LOWER CNTMT CLR HDR B ERCW SUP ISOL	2-47W845-3 / F-7	A	Active	2	6	BF	MO

Appendix F - Deferred Test Justifications

Deferred Test Justification: DTJ-27

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
2-FCV-67-107-A	LOWER CNTMT CLR HDR D ERCW SUP ISOL	2-47W845-3 / E-8	A	Active	2	6	BF	MO
2-FCV-67-111-B	LOWER CNTMT CLR HDR D ERCW RET ISOL	2-47W845-3 / D-7	A	Active	2	6	BF	MO
2-FCV-67-112-A	LOWER CNTMT CLR HDR D ERCW RET ISOL	2-47W845-3 / D-8	A	Active	2	6	BF	MO
2-FCV-67-113-B	LOWER CNTMT CLR HDR D ERCW SUP ISOL	2-47W845-3 / E-7	A	Active	2	6	BF	MO
2-FCV-67-83-B	LOWER CNTMT CLR HDR A ERCW SUP ISOL	2-47W845-3 / H-8	A	Active	2	6	BF	MO
2-FCV-67-87-A	LOWER CNTMT CLR HDR A ERCW RET ISOL	2-47W845-3 / H-7	A	Active	2	6	BF	MO
2-FCV-67-88-B	LOWER CNTMT CLR HDR A ERCW RET ISOL	2-47W845-3 / H-8	A	Active	2	6	BF	MO
2-FCV-67-89-A	LOWER CNTMT CLR HDR A ERCW SUP ISOL	2-47W845-3 / H-7	A	Active	2	6	BF	MO
2-FCV-67-91-B	LOWER CNTMT CLR HDR C ERCW SUP ISOL	2-47W845-3 / G-8	A	Active	2	6	BF	MO
2-FCV-67-95-A	LOWER CNTMT CLR HDR C ERCW RET ISOL	2-47W845-3 / F-7	A	Active	2	6	BF	MO
2-FCV-67-96-B	LOWER CNTMT CLR HDR C ERCW RET ISOL	2-47W845-3 / F-8	A	Active	2	6	BF	MO
2-FCV-67-97-A	LOWER CNTMT CLR HDR C ERCW SUP ISOL	2-47W845-3 / G-7	A	Active	2	6	BF	MO
2-FCV-67-99-A	LOWER CNTMT CLR HDR B ERCW SUP ISOL	2-47W845-3 / F-8	A	Active	2	6	BF	MO
2-FCV-70-100-A	RCP OIL COOLERS CCS SUPPLY	2-47W859-3 / G-4	A	Active	2	6	BF	MO
2-FCV-70-133-A	THERMAL BARRIER CCS SUPPLY	2-47W859-3 / H-3	B	Active	3	3	GA	MO
2-FCV-70-134-B	THERMAL BARRIER CCS SUPPLY	2-47W859-3 / H-3	A	Active	2	3	GA	MO
2-FCV-70-140-B	RCP OIL COOLER CCS SUPPLY	2-47W859-3 / G-3	A	Active	2	6	BF	MO
2-FCV-70-87-B	THERMAL BARRIER CCS RETURN	2-47W859-3 / H-9	A	Active	2	3	GA	MO
2-FCV-70-89-B	RCP OIL COOLER CCS RET HDR	2-47W859-3 / E-9	A	Active	2	6	BF	MO
2-FCV-70-90-A	THERMAL BARRIER CCS RETURN	2-47W859-3 / F-10	A	Active	2	3	GA	MO
2-FCV-70-92-A	RCP OIL COOLER CCS RETURN	2-47W859-3 / E-10	A	Active	2	6	BF	MO

Required Test Frequency: Full stroke exercise with stroke time closed (STC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Full stroke exercise with stroke time closed (STC) on a Cold Shutdown (CSD) frequency.

Appendix F - Deferred Test Justifications

Page 33 of 37

Justification for Deferred Test Frequency: Exercising these valves during operation causes a loss of flow to the associated equipment (Lower Compartment Coolers, Control Rod Drive Mechanism Coolers, Reactor Coolant Pump [RCP] Motor Coolers, RCP oil coolers, and/or RCP Thermal Barrier Coolers). In many cases [i.e., RCP Pump Oil Coolers or RCP Thermal Barrier Coolers] loss of flow to the associated equipment for even a brief period of time could easily result in failure of the associated equipment, unit trip, and potentially even a safety injection. Failure of the remaining valves to reopen would cause a sustained loss of flow to the associated equipment and would result in the same consequences.

Deferred Test Justification: DTJ-28

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-63-868	1-CKV-77-868CONTAINMENT N2 HEADERCHECK	1-47W830-6 / B-7	A/C	Active	2	1	CK	SA
1-CKV-68-849	PRESSURIZER RELIEF TANK N2 SUP HDR CHECK	1-47W830-6 / G-7	A/C	Active	2	1	CK	SA
2-CKV-63-868	2-CKV-63-868 CONTAINMENT N2 HEADER CHECK	2-47W830-6 / B-7	A/C	Active	2	1	CK	SA
2-CKV-68-849	PRESSURIZER RELIEF TANK N2 SUP HDR CHECK	2-47W830-6 / G-8	A/C	Active	2	1	CK	SA

Required Test Frequency: Check Valve Closure (CVC) on a Quarterly (Q) frequency.
Check Valve Bi-directional Open (BDO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Closure (CVC) on a Cold Shutdown (CSD) frequency.
Check Valve Bi-directional Open (BDO) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Cycling these valves closed during power operation interrupts the nitrogen supply inside containment to a number of components and systems. Additionally personnel radiation exposure and valve inaccessibility prohibit quarterly exercising of these valves. ISTC-3522(a) permits scheduling both the open and the close tests at the same frequency.

Deferred Test Justification: DTJ-29

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-RFV-62-1079	HOLDUP TANK A VACUUM RELIEF	1-47W809-3 / C-12	C	Active	3	4	RV	SA
1-RFV-70-539-S	UNIT 1 CCS SURGE TANK RELIEF	1-47W859-1 / E-3	C	Active	3	3	RV	SA
2-RFV-62-1079	HOLDUP TANK B VACUUM RELIEF	1-47W809-3 / C-7	C	Active	3	4	RV	SA
2-RFV-70-539-S	UNIT 2 CCS SURGE TANK RELIEF	2-47W859-1 / E-1	C	Active	3	3	RV	SA

Required Test Frequency: Vacuum Relief Valve test (set pressure, seat leakage) on a biennial (2Y) frequency.

Deferred Test Frequency: Vacuum Relief Valve test (set pressure, seat leakage) on an Interval (10Y) frequency.

Justification for Deferred Test Frequency: As permitted by Mandatory Appendix I, Subparagraph I-1380, Class 2 and 3 vacuum relief valves shall be tested every 2 years, unless performance data suggests the need for a more appropriate test interval. During the First Unit 1 Inservice Interval, these valves were tested by the IST Program on a once per 120 month test interval. Actual test data ranged from a minimum of six months between test performances to a maximum of 109 months between test performances, with no as-found setpoint failures. The only failure encountered was failure of a valve to reseat upon reinstallation following testing. No as found seat leakage failures or as found set pressure failures were encountered. This provides a basis for continuing to test these vacuum relief valves at a once per 120 month frequency.

Deferred Test Justification: DTJ-30

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-74-544-A	RHR HEADER 1A MINIMUM FLOW CHECK	1-47W810-1 / F-5	C	Active	2	8	CK	SA
1-CKV-74-545-B	RHR HEADER 1B MINIMUM FLOW CHECK	1-47W810-1 / C-5	C	Active	2	8	CK	SA
2-CKV-74-544-A	RHR HEADER 2A MINIMUM FLOW CHECK	2-47W810-1 / F-5	C	Active	2	8	CK	SA
2-CKV-74-545-B	RHR HEADER 2B MINIMUM FLOW CHECK	2-47W810-1 / C-5	C	Active	2	8	CK	SA

Required Test Frequency: Check Valve Closure (CVC) on a Quarterly (Q) frequency.
Check Valve Open (CVO) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Closure (CVC) on a Refueling Outage (RO) frequency.
Check Valve Open (CVO) on a Refueling Outage (RO) frequency.

Justification for Deferred Test Frequency: The RHR pumps do not develop sufficient head to open the valves during power operation. With the RHR pump suction being supplied from the normal loop 4 suction path during shutdown and discharging to a closed vessel, the pumps cannot develop sufficient flow to satisfy the full flow requirements for the check valves. In order to achieve full flow, the vessel must be open and the pump suction taken from the RWST or from loop 4. These valves can only be closure tested during operation. While in shut down conditions, the valve alignments necessary to closure test these valves adversely affects both trains of a safety system. Full open test of the check valves is performed during refueling outages. The first quarterly pump test after each refueling outage is the only closure test that can be credited. All other quarterly tests only part stroke open the valves.

Deferred Test Justification: DTJ-31

Valve ID	Function	Drawing / Coor	Cat	Act/Pass	Class	Size	Type	Act
1-CKV-70-679	RCP THERMAL BARRIER CCS SUP HDR CHECK	1-47W859-2 / H-3	A/C	Active	2	3	CK	SA
2-CKV-70-679	RCP THERMAL BARRIER CCS SUP HDR CHECK	2-47W859-3 / H-4	A/C	Active	2	3	CK	SA

Required Test Frequency: Check Valve Bi-directional Open (BDO) on a Quarterly (Q) frequency.
Check Valve Closure (CVC) on a Quarterly (Q) frequency.

Deferred Test Frequency: Check Valve Bi-directional Open (BDO) on a Cold Shutdown (CSD) frequency.
Check Valve Closure (CVC) on a Cold Shutdown (CSD) frequency.

Justification for Deferred Test Frequency: Exercising these valves during operation causes a loss of flow to the associated equipment (RCP Thermal Barrier Coolers). Loss of flow to the associated equipment for even a brief period of time could easily result in failure of the associated equipment, unit trip, and potentially even a safety injection.

Testing of these check valves requires manipulation of the associated power operated valves. Testing of the power operated valves has been deferred to the CSD frequency as described in DTJ-27. ISTC-3522(a) permits scheduling both the open and the close tests for check valves at the same frequency.

Appendix G - Snubber Test Plan
Page 1 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-001-1SG1A	1-SG-1-A	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG1B	1-SG-1-B	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG1C	1-SG-1-C	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG1D	1-SG-1-D	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG1E	1-SG-1-E	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG2A	1-SG-2-A	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG2B	1-SG-2-B	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG2C	1-SG-2-C	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG2D	1-SG-2-D	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG2E	1-SG-2-E	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG3A	1-SG-3-A	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG3B	1-SG-3-B	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG3C	1-SG-3-C	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG3D	1-SG-3-D	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG3E	1-SG-3-E	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG4A	1-SG-4-A	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG4B	1-SG-4-B	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG4C	1-SG-4-C	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG4D	1-SG-4-D	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-1SG4E	1-SG-4-E	Hydraulic	PMH	PMH-12	12	1000
1-SNUB-001-01A303N	1-01A-303N	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A303S	1-01A-303S	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A307	1-01A-307	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A312	1-01A-312	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A313	1-01A-313	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A317	1-01A-317	Mechanical	PSA	PSA-3	3	6
1-SNUB-001-01A340	1-01A-340	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A343N	1-01A-343N	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A343S	1-01A-343S	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A348	1-01A-348	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A349	1-01A-349	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A350	1-01A-350	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A355	1-01A-355	Mechanical	PSA	PSA-3	3	6
1-SNUB-001-01A380	1-01A-380	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A383N	1-01A-383N	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A383S	1-01A-383S	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A389	1-01A-389	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A391	1-01A-391	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A392	1-01A-392	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A397	1-01A-397	Mechanical	PSA	PSA-3	3	6
1-SNUB-001-01A423N	1-01A-423N	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A423S	1-01A-423S	Mechanical	PSA	PSA-35	35	50

Appendix G - Snubber Test Plan
Page 2 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-001-01A424	1-01A-424	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A428	1-01A-428	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A429	1-01A-429	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A434	1-01A-434	Mechanical	PSA	PSA-100	100	120
1-SNUB-001-01A435	1-01A-435	Mechanical	PSA	PSA-35	35	50
1-SNUB-001-01A439	1-01A-439	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A200	1-03A-200	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A201	1-03A-201	Mechanical	PSA	PSA-35	35	50
1-SNUB-003-03A205	1-03A-205	Mechanical	PSA	PSA-100	100	120
1-SNUB-003-03A240	1-03A-240	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A241	1-03A-241	Mechanical	PSA	PSA-35	35	50
1-SNUB-003-03A244	1-03A-244	Mechanical	PSA	PSA-100	100	120
1-SNUB-003-03A248	1-03A-248	Mechanical	PSA	PSA-35	35	50
1-SNUB-003-03A280	1-03A-280	Mechanical	PSA	PSA-35	35	50
1-SNUB-003-03A281	1-03A-281	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A285	1-03A-285	Mechanical	PSA	PSA-100	100	120
1-SNUB-003-03A289	1-03A-289	Mechanical	PSA	PSA-35	35	50
1-SNUB-003-03A320	1-03A-320	Mechanical	PSA	PSA-35	35	50
1-SNUB-003-03A321	1-03A-321	Mechanical	PSA	PSA-35	35	50
1-SNUB-003-03A323	1-03A-323	Mechanical	PSA	PSA-100	100	120
1-SNUB-003-03A328	1-03A-328	Mechanical	PSA	PSA-100	100	120
1-SNUB-003-03A369	1-03A-369	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A370	1-03A-370	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A373	1-03A-373	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A374	1-03A-374	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-03A377	1-03A-377	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A402	1-03A-402	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A405	1-03A-405	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A409	1-03A-409	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A411	1-03A-411	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A426	1-03A-426	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A449	1-03A-449	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A450	1-03A-450	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A453L	1-03A-453L	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A453U	1-03A-453U	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A455	1-03A-455	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A466	1-03A-466	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A468	1-03A-468	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A480	1-03A-480	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A482L	1-03A-482L	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A482U	1-03A-482U	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A483	1-03A-483	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A485	1-03A-485	Mechanical	PSA	PSA-10	10	15

Appendix G - Snubber Test Plan
Page 3 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-003-03A487E	1-03A-487E	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A487W	1-03A-487W	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A494	1-03A-494	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03A497	1-03A-497	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-03A501	1-03A-501	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-03B3	1-03B-3	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-03B35	1-03B-35	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-03B79	1-03B-79	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-401730	A401-7-30	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-401731E	A401-7-31E	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-401731W	A401-7-31W	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-401732	A401-7-32	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-401735	A401-7-35	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-40181L	A401-8-1L	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-40181U	A401-8-1U	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-40192	A401-9-2	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-40195	A401-9-5	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-427110	A427-1-10	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-42712	A427-1-2	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-42713	A427-1-3	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-42715N	A427-1-5N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-42715S	A427-1-5S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-42716	A427-1-6	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-42717	A427-1-7	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-42719	A427-1-9	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-427310	A427-3-10	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-427311	A427-3-11	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-427338	A427-3-38	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-427339	A427-3-39	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-42733N	A427-3-3N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-42733S	A427-3-3S	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-427340	A427-3-40	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-427341	A427-3-41	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-42735N	A427-3-5N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-42735S	A427-3-5S	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-42752	A427-5-2	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-42754	A427-5-4	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-42755	A427-5-5	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-42761	A427-6-1	Mechanical	PSA	PSA-10	10	15
1-SNUB-003-42774	A427-7-4	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-42778	A427-7-8	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-42781	A427-8-1	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-003-42782	A427-8-2	Mechanical	PSA	PSA-1/2	1/2	0.65

Appendix G - Snubber Test Plan
Page 4 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-003-427820	A427-8-20	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-427829	A427-8-29	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-42783	A427-8-3	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-427855	A427-8-55	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-427856	A427-8-56	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-427857	A427-08-57	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-003-AFWR209E	03B-1AFW-R209E	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-AFWR209W	03B-1AFW-R209W	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-AFWR212	03B-1AFW-R212	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-AFWR213	03B-1AFW-R213	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-AFWR214	03B-1AFW-R214	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR216	03B-1AFW-R216	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-AFWR217	03B-1AFW-R217	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-003-AFWR219	03B-1AFW-R219	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR236N	03B-1AFW-R236N	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR236S	03B-1AFW-R236S	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR237	03B-1AFW-R237	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR238	03B-1AFW-R238	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR239E	03B-1AFW-R239E	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR239W	03B-1AFW-R239W	Mechanical	PSA	PSA-3	3	6
1-SNUB-003-AFWR86	03B-1AFW-R86	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-40011109	A400-11-109	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4001123	A400-11-23	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4001154	A400-11-54	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4001155	A400-11-55	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006100	A400-6-100	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006101	A400-6-101	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006102	A400-6-102	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006103	A400-6-103	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006104	A400-6-104	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006106	A400-6-106	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006108	A400-6-108	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006109	A400-6-109	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006111	A400-6-111	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006112	A400-6-112	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006114	A400-6-114	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006115	A400-6-115	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006118E	A400-6-118E	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006118W	A400-6-118W	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006119	A400-6-119	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006122	A400-6-122	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006123	A400-6-123	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006126	A400-6-126	Mechanical	PSA	PSA-3	3	6

Appendix G - Snubber Test Plan
Page 5 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-015-4006127	A400-6-127	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006128	A400-6-128	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006132	A400-6-132	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006133	A400-6-133	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006134E	A400-6-134E	Mechanical	PSA	PSA-10	10	15
1-SNUB-015-4006134W	A400-6-134W	Mechanical	PSA	PSA-10	10	15
1-SNUB-015-4006135	A400-6-135	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006137	A400-6-137	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006149	A400-6-149	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006151	A400-6-151	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006173	A400-6-173	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006179	A400-6-179	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006181	A400-6-181	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006182	A400-6-182	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006183	A400-6-183	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006184	A400-6-184	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006186	A400-6-186	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006188	A400-6-188	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006190	A400-6-190	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006194	A400-6-194	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006196	A400-6-196	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006198	A400-6-198	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006199	A400-6-199	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006201	A400-6-201	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006202	A400-6-202	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006203	A400-6-203	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006207	A400-6-207	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006218	A400-6-218	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006220	A400-6-220	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006233	A400-6-233	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006235	A400-6-235	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006237	A400-6-237	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006238	A400-6-238	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006248	A400-6-248	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006259	A400-6-259	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006260	A400-6-260	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006261	A400-6-261	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006262	A400-6-262	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006265	A400-6-265	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006268	A400-6-268	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-4006271E	A400-6-271E	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006271W	A400-6-271W	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-4006273	A400-6-273	Mechanical	PSA	PSA-1/2	1/2	0.65

Appendix G - Snubber Test Plan
Page 6 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-015-4006274	A400-6-274	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006275S	A400-6-275S	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-4006277	A400-6-277	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-4006281	A400-6-281	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-400666	A400-6-66	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400669	A400-6-69	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400671	A400-6-71	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400672	A400-6-72	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400673	A400-6-73	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400675	A400-6-75	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-400676	A400-6-76	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-400678	A400-6-78	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400679	A400-6-79	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-400680	A400-6-80	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400683S	A400-6-83S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-400683W	A400-6-83W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-015-400685	A400-6-85	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400686	A400-6-86	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400691	A400-6-91	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400692	A400-6-92	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-400694	A400-6-94	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-015-400699	A400-6-99	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400710	A400-7-10	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400712	A400-7-12	Mechanical	PSA	PSA-3	3	6
1-SNUB-015-400746	A400-7-46	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400812L	A400-8-12L	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-015-400812U	A400-8-12U	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-030-91531	A915-3-1	Mechanical	PSA	PSA-3	3	6
1-SNUB-030-915313	A915-3-13	Mechanical	PSA	PSA-3	3	6
1-SNUB-030-915333	A915-3-33	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-030-915371E	A915-3-71E	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-030-915371W	A915-3-71W	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-031-920116S	A920-31-116S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-031-920116W	A920-31-116W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-031-920117E	A920-31-117E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-031-920117N	A920-31-117N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-031-920118E	A920-31-118E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-031-920118S	A920-31-118S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-031-92053E	A920-39-53E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-031-92053N	A920-39-53N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462122E	A462-12-2E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462122W	A462-12-2W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462126E	A462-12-6E	Mechanical	PSA	PSA-1/4	1/4	0.35

Appendix G - Snubber Test Plan
Page 7 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-061-462126W	A462-12-6W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462132E	A462-13-2E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462132S	A462-13-2S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462136E	A462-13-6E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462136S	A462-13-6S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-462138	A462-13-8	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-061-46289	A462-8-9	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-4061018	A406-10-18	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-406109E	A406-10-9E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406109W	A406-10-9W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40616	A406-1-6	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-406182	A406-18-2	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-40623	A406-2-3	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-40633	A406-3-3	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-406342	A406-3-42	Mechanical	PSA	PSA-10	10	15
1-SNUB-062-4067125	A406-7-125	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067126	A406-7-126	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067128	A406-7-128	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067129	A406-7-129	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067130	A406-7-130	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067131	A406-7-131	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067132	A406-7-132	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067133N	A406-7-133N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067133S	A406-7-133S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067134	A406-7-134	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067135	A406-7-135	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067136	A406-7-136	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-4067137L	A406-7-137L	Mechanical	PSA	PSA-10	10	15
1-SNUB-062-4067137U	A406-7-137U	Mechanical	PSA	PSA-10	10	15
1-SNUB-062-4067141E	A406-7-141E	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-4067141W	A406-7-141W	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-4067142L	A406-7-142L	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-4067142U	A406-7-142U	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-406720	A406-7-20	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40673N	A406-7-3N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-40673W	A406-7-3W	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-40676	A406-7-6	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-40681	A406-8-1	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406810	A406-8-10	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406812N	A406-8-12N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406812W	A406-8-12W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406815	A406-8-15	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406818E	A406-8-18E	Mechanical	PSA	PSA-1/2	1/2	0.65

Appendix G - Snubber Test Plan
Page 8 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-062-406818N	A406-8-18N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406821	A406-8-21	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406825	A406-8-25	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40682L	A406-8-2L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40682U	A406-8-2U	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406833	A406-8-33	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406834	A406-8-34	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406835	A406-8-35	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-40684	A406-8-4	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406856	A406-8-56	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-406858	A406-8-58	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40686	A406-8-6	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406860E	A406-8-60E	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-406860N	A406-8-60N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-406865	A406-8-65	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406868	A406-8-68	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406869	A406-8-69	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406871	A406-8-71	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-406872	A406-8-72	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-406879E	A406-8-79E	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-406879W	A406-8-79W	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-406881	A406-8-81	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40689N	A406-8-9N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40689W	A406-8-9W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406913	A406-9-13	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406918E	A406-9-18E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406918W	A406-9-18W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406919	A406-9-19	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406928	A406-9-28	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-406930	A406-9-30	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406931	A406-9-31	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-406950	A406-9-50	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-40695N	A406-9-5N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-40699	A406-9-9	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A101	1-62A-101	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A102	1-62A-102	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A105	1-62A-105	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A110	1-62A-110	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A114	1-62A-114	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A152	1-62A-152	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A153	1-62A-153	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A171	1-62A-171	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A183	1-62A-183	Mechanical	PSA	PSA-1	1	1.5

Appendix G - Snubber Test Plan
Page 9 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-062-62A184	1-62A-184	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A186	1-62A-186	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A188	1-62A-188	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A190	1-62A-190	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A2	1-62A-2	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A201	1-62A-201	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A203	1-62A-203	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A207	1-62A-207	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A21	1-62A-21	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A240	1-62A-240	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A242	1-62A-242	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A247	1-62A-247	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A254	1-62A-254	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A262	1-62A-262	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A269	1-62A-269	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A291	1-62A-291	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A292	1-62A-292	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A294	1-62A-294	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A31	1-62A-31	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A311	1-62A-311	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A317	1-62A-317	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A318	1-62A-318	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A319	1-62A-319	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A32	1-62A-32	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A320	1-62A-320	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A322	1-62A-322	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A325	1-62A-325	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A33	1-62A-33	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A34	1-62A-34	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A342	1-62A-342	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A345	1-62A-345	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A349	1-62A-349	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A353	1-62A-353	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A355	1-62A-355	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A357L	1-62A-357L	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A357U	1-62A-357U	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A358	1-62A-358	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A360	1-62A-360	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A362	1-62A-362	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A363	1-62A-363	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A364	1-62A-364	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A366	1-62A-366	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A369	1-62A-369	Mechanical	PSA	PSA-1/4	1/4	0.35

Appendix G - Snubber Test Plan
Page 10 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-062-62A371	1-62A-371	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A374	1-62A-374	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A377	1-62A-377	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A379	1-62A-379	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A380	1-62A-380	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A382	1-62A-382	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A4	1-62A-4	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A402	1-62A-402	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A406	1-62A-406	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A407	1-62A-407	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A430	1-62A-430	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A431	1-62A-431	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A434	1-62A-434	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A461	1-62A-461	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A466E	1-62A-466E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A466W	1-62A-466W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A48	1-62A-48	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A491	1-62A-491	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A495	1-62A-495	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A499	1-62A-499	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A533	1-62A-533	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A534	1-62A-534	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A538	1-62A-538	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A555	1-62A-555	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A556	1-62A-556	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A557	1-62A-557	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A559	1-62A-559	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A560	1-62A-560	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A561	1-62A-561	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A562	1-62A-562	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-62A563	1-62A-563	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A565	1-62A-565	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A582	1-62A-582	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A583	1-62A-583	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A6	1-62A-6	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A624	1-62A-624	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A625	1-62A-625	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A630	1-62A-630	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A632	1-62A-632	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A634	1-62A-634	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A635	1-62A-635	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A64	1-62A-64	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A65	1-62A-65	Mechanical	PSA	PSA-1/4	1/4	0.35

Appendix G - Snubber Test Plan
Page 11 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-062-62A670	1-62A-670	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A671	1-62A-671	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A680	1-62A-680	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A702	1-62A-702	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A714	1-62A-714	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A722	1-62A-722	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A802	1-62A-802	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A806	1-62A-806	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A808	1-62A-808	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A809	1-62A-809	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-62A810	1-62A-810	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A821	1-62A-821	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A834	1-62A-834	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A835	1-62A-835	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A865	1-62A-865	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A866	1-62A-866	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A873	1-62A-873	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A9	1-62A-9	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A906	1-62A-906	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-62A95	1-62A-95	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-62A97	1-62A-97	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-CVCR15L	62-1CVC-R15L	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-CVCR15U	62-1CVC-R15U	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-CVCR209	62-1CVC-R209	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-CVCR20L	62-1CVC-R20L	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-CVCR20U	62-1CVC-R20U	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-062-CVCR224	62-1CVC-R224	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-CVCR275	62-1CVC-R275	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-CVCR276	62-1CVC-R276	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-CVCR50	62-1CVC-R50	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-CVCR52N	62-1CVC-R52N	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-CVCR52S	62-1CVC-R52S	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-CVCR61L	62-1CVC-R61L	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-CVCR61U	62-1CVC-R61U	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-CVCR62L	62-1CVC-R62L	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-CVCR62U	62-1CVC-R62U	Mechanical	PSA	PSA-3	3	6
1-SNUB-062-CVCR89	62-1CVC-R89	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-LCVR105	62-1LCV-R105	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-LCVR125N	62-1LCV-R125N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-LCVR125S	62-1LCV-R125S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-LCVR126N	62-1LCV-R126N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-LCVR126S	62-1LCV-R126S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-LCVR222	62-1LCV-R222	Mechanical	PSA	PSA-1	1	1.5

Appendix G - Snubber Test Plan
Page 12 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-062-LCVR244L	62-1LCV-R244L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-LCVR244U	62-1LCV-R244U	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-062-LCVR42L	62-1LCV-R42L	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-LCVR42U	62-1LCV-R42U	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-LCVR47	62-1LCV-R47	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-062-LCVR92	62-1LCV-R92	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351013	A435-10-13	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351014N	A435-10-14N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351014W	A435-10-14W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351015E	A435-10-15E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351015N	A435-10-15N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351022E	A435-10-22E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351022W	A435-10-22W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351028	A435-10-28	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435102E	A435-10-2E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435102N	A435-10-2N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351031	A435-10-31	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351033	A435-10-33	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351036	A435-10-36	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351041N	A435-10-41N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351041S	A435-10-41S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351044	A435-10-44	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351046	A435-10-46	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4351048	A435-10-48	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435104S	A435-10-4S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435104W	A435-10-4W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435145	A435-1-45	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-435171	A435-1-71	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-435172	A435-1-72	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-43519	A435-1-9	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-435314L	A435-3-14L	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-435314U	A435-3-14U	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-435315N	A435-3-15N	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-435315S	A435-3-15S	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-43533	A435-3-3	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-4356100	A435-6-100	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-4356101S	A435-6-101S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4356101W	A435-6-101W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-4356102	A435-6-102	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-4356103	A435-6-103	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-4356108	A435-6-108	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435610N	A435-6-10N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435610W	A435-6-10W	Mechanical	PSA	PSA-1/4	1/4	0.35

Appendix G - Snubber Test Plan
Page 13 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-063-435645N	A435-6-45N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435645W	A435-6-45W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435674	A435-6-74	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-435677	A435-6-77	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-43567S	A435-6-7S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-43567W	A435-6-7W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435683	A435-6-83	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435684E	A435-6-84E	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-435684N	A435-6-84N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-435689E	A435-6-89E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435689S	A435-6-89S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435760	A435-7-60	Mechanical	PSA	PSA-100	100	120
1-SNUB-063-435823	A435-8-23	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435835	A435-8-35	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-435836	A435-8-36	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-435838	A435-8-38	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435840	A435-8-40	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435874	A435-8-74	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435876L	A435-8-76L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435876U	A435-8-76U	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435884	A435-8-84	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435888	A435-8-88	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-435923E	A435-9-23E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435923W	A435-9-23W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435932E	A435-9-32E	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435932W	A435-9-32W	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435933	A435-9-33	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435976	A435-9-76	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-435978	A435-9-78	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-435980	147A4350980	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-435981	147A4350981	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-43599N	A435-9-9N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-43599S	A435-9-9S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-437152	A437-1-52	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-437153	A437-1-53	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-631	1-63-1	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-63106	1-63-106	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6311	1-63-11	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-63116	1-63-116	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63121	1-63-121	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6314	1-63-14	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63156	1-63-156	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63164	1-63-164	Mechanical	PSA	PSA-1/4	1/4	0.35

Appendix G - Snubber Test Plan
Page 14 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-063-63169	1-63-169	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6317	1-63-17	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63172	1-63-172	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6318	1-63-18	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63185	1-63-185	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-63187	1-63-187	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-6319	1-63-19	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63202	1-63-202	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-6321	1-63-21	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6322	1-63-22	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63224	1-63-224	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-63228	1-63-228	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6323	1-63-23	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63236	1-63-236	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-6324	1-63-24	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63285	1-63-285	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6329	1-63-29	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6330	1-63-30	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6331	1-63-31	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6332	1-63-32	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6334	1-63-34	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63340	1-63-340	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-63341	1-63-341	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63344	1-63-344	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6335	1-63-35	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63365	1-63-365	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63366	1-63-366	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63368	1-63-368	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63371	1-63-371	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6338	1-63-38	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63383	1-63-383	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-6339	1-63-39	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63398	1-63-398	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-63411L	1-63-411L	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63411U	1-63-411U	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6342	1-63-42	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63445	1-63-445	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63446	1-63-446	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63452	1-63-452	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63453	1-63-453	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-63454	1-63-454	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63458	1-63-458	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-63459	1-63-459	Mechanical	PSA	PSA-3	3	6

Appendix G - Snubber Test Plan
Page 15 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-063-63462	1-63-462	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63465	1-63-465	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-63467	1-63-467	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63475	1-63-475	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63476	1-63-476	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63480	1-63-480	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63491	1-63-491	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-63494	1-63-494	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63496L	1-63-496L	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63496U	1-63-496U	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-63520	1-63-520	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63523	1-63-523	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-63526	1-63-526	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63527	1-63-527	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63528	1-63-528	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63547	1-63-547	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63548	1-63-548	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63549	1-63-549	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6355	1-63-55	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63571	1-63-571	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-63572	1-63-572	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-63573	1-63-573	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63584	1-63-584	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63585	1-63-585	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63589	1-63-589	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63590	1-63-590	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63591	1-63-591	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-63592	1-63-592	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-63593	1-63-593	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-63596	1-63-596	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-63597	1-63-597	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63598	1-63-598	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-63599	1-63-599	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-63600	1-63-600	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63601	1-63-601	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-63602	1-63-602	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-6362	1-63-62	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-6364	1-63-64	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6365	1-63-65	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6366	1-63-66	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6373	1-63-73	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-6378	1-63-78	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6379	1-63-79	Mechanical	PSA	PSA-3	3	6

Appendix G - Snubber Test Plan
Page 16 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-063-638	1-63-8	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-6381	1-63-81	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-6394	1-63-94	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-6396	1-63-96	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR100	63-1SIS-R100	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR109	63-1SIS-R109	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR112	63-1SIS-R112	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR114	63-1SIS-R114	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR142	63-1SIS-R142	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR146	63-1SIS-R146	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR147	63-1SIS-R147	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR148	63-1SIS-R148	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR149	63-1SIS-R149	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR151	63-1SIS-R151	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR155	63-1SIS-R155	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR168	63-1SIS-R168	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR170	63-1SIS-R170	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR173	63-1SIS-R173	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-SISR174N	63-1SIS-R174N	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-SISR174S	63-1SIS-R174S	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-SISR17E	63-1SIS-R17E	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR17W	63-1SIS-R17W	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR183	63-1SIS-R183	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-SISR192	63-1SIS-R192	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR194	63-1SIS-R194	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR195	63-1SIS-R195	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR211	63-1SIS-R211	Mechanical	PSA	PSA-10	10	15
1-SNUB-063-SISR214	63-1SIS-R214	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR215	63-1SIS-R215	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR221	63-1SIS-R221	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR226	63-1SIS-R226	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR228	63-1SIS-R228	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR230	63-1SIS-R230	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR240N	63-1SIS-R240N	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR240S	63-1SIS-R240S	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR242	63-1SIS-R242	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-SISR245	63-1SIS-R245	Mechanical	PSA	PSA-3	3	6
1-SNUB-063-SISR246	63-1SIS-R246	Mechanical	PSA	PSA-35	35	50
1-SNUB-063-SISR248N	63-1SIS-R248N	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR248S	63-1SIS-R248S	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR250	63-1SIS-R250	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-SISR251	63-1SIS-R251	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR254	63-1SIS-R254	Mechanical	PSA	PSA-1/4	1/4	0.35

Appendix G - Snubber Test Plan
Page 17 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-063-SISR260	63-1SIS-R260	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR263	63-1SIS-R263	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR264	63-1SIS-R264	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR265	63-1SIS-R265	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR268	63-1SIS-R268	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-SISR273	63-1SIS-R273	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-SISR275	63-1SIS-R275	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-063-SISR276	63-1SIS-R276	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR31	63-1SIS-R31	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-063-SISR51	63-1SIS-R51	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-063-SISR85	63-1SIS-R85	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-067-2061224	A206-12-24	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-2061225	A206-12-25	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-2061226	A206-12-26	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-2061227	A206-12-27	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-2061229	A206-12-29	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-2061230	A206-12-30	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-4503110	A450-3-110	Mechanical	PSA	PSA-35	35	50
1-SNUB-067-4503160	A450-3-160	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-4503162	A450-3-162	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-4503163	A450-3-163	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-4503177	A450-3-177	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-450386L	A450-3-86L	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-450386U	A450-3-86U	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-450387	A450-3-87	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-450399	A450-3-99	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-450425	A450-4-25	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-067-4504537	A450-4-537	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-4504541	47A450-4-541	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-ERCW128	67-1ERCW-R128	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-ERCW213	67-1ERCW-R213	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-ERCW365E	67-1ERCW-R365E	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-067-ERCW365W	67-1ERCW-R365W	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-067-ERCW410	67-1ERCW-R410	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-ERCW459	67-1ERCW-R459	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-ERCW466	67-1ERCW-R466	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-ERCW468	67-1ERCW-R468	Mechanical	PSA	PSA-3	3	6
1-SNUB-067-ERCW567N	67-1ERCW-R567N	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-ERCW567S	67-1ERCW-R567S	Mechanical	PSA	PSA-10	10	15
1-SNUB-067-ERCW595	67-1ERCW-R595	Mechanical	PSA	PSA-35	35	50
1-SNUB-068-4651101L	A465-1-101L	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-4651101U	A465-1-101U	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-4651104L	A465-1-104L	Mechanical	PSA	PSA-3	3	6

Appendix G - Snubber Test Plan
Page 18 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-068-4651104U	A465-1-104U	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-4651105L	A465-1-105L	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-4651105U	A465-1-105U	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-465121N	A465-1-21N	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-465121S	A465-1-21S	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-465131	A465-1-31	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-465132	A465-1-32	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-465165	A465-1-65	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-465166	A465-1-66	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-465215	A465-2-15	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-465228	A465-2-28	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-465237	A465-2-37	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-465238	A465-2-38	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-465239	A465-2-39	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-465240	A465-2-40	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-465266	A465-2-66	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-465267	A465-2-67	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-465348L	A465-3-48L	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-465348U	A465-3-48U	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-465879	A465-8-79	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-465882	A465-8-82	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-465883	A465-8-83	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-465885	A465-8-85	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-465891	A465-8-91	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-68117	1-68-117	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68120	1-68-120	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-6823L	1-68-23L	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-6823U	1-68-23U	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-6831	1-68-31	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-6832	1-68-32	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-6833	1-68-33	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-6834	1-68-34	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-6836	1-68-36	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-68363	1-68-363	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-068-68365L	1-68-365L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-68365U	1-68-365U	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-68366	1-68-366	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-68370	1-68-370	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-68404N	1-68-404N	Mechanical	PSA	PSA-35	35	50
1-SNUB-068-68404S	1-68-404S	Mechanical	PSA	PSA-35	35	50
1-SNUB-068-68405N	1-68-405N	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68405S	1-68-405S	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68406L	1-68-406L	Mechanical	PSA	PSA-10	10	15

Appendix G - Snubber Test Plan

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-068-68406U	1-68-406U	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68407E	1-68-407E	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68407W	1-68-407W	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68408E	1-68-408E	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68408W	1-68-408W	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68409L	1-68-409L	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68409U	1-68-409U	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68410N	1-68-410N	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68410S	1-68-410S	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68412N	1-68-412N	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68412S	1-68-412S	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68415L	1-68-415L	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-68415U	1-68-415U	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-68418E	1-68-418E	Mechanical	PSA	PSA-35	35	50
1-SNUB-068-68418W	1-68-418W	Mechanical	PSA	PSA-35	35	50
1-SNUB-068-6842	1-68-42	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-68424E	1-68-424E	Mechanical	PSA	PSA-35	35	50
1-SNUB-068-68424W	1-68-424W	Mechanical	PSA	PSA-35	35	50
1-SNUB-068-68427	1-68-427	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68428N	1-68-428N	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68428S	1-68-428S	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68429L	1-68-429L	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68429U	1-68-429U	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68444	1-68-444	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68445	1-68-445	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-68446L	1-68-446L	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68446U	1-68-446U	Mechanical	PSA	PSA-10	10	15
1-SNUB-068-68447	1-68-447	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-6853	1-68-53	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-068-6873	1-68-73	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-068-6880	1-68-80	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-6893	1-68-93	Mechanical	PSA	PSA-3	3	6
1-SNUB-068-6896	1-68-96	Mechanical	PSA	PSA-3	3	6
1-SNUB-070-4642015	A464-20-15	Mechanical	PSA	PSA-10	10	15
1-SNUB-070-4642021	A464-20-21	Mechanical	PSA	PSA-3	3	6
1-SNUB-070-464213	A464-2-13	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-070-7012	1-70-12	Mechanical	PSA	PSA-3	3	6
1-SNUB-070-7014	1-70-14	Mechanical	PSA	PSA-3	3	6
1-SNUB-070-7016	1-70-16	Mechanical	PSA	PSA-10	10	15
1-SNUB-070-70282	1-70-282	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-070-70329	1-70-329	Mechanical	PSA	PSA-3	3	6
1-SNUB-070-CCR106N	70-1CC-R106N	Mechanical	PSA	PSA-10	10	15
1-SNUB-070-CCR106S	70-1CC-R106S	Mechanical	PSA	PSA-10	10	15

Appendix G - Snubber Test Plan
Page 20 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-070-CCR46	70-2CC-R46	Mechanical	PSA	PSA-3	3	6
1-SNUB-070-CCR634	70-1CC-R634	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-070-CCR64	70-1CC-R64	Mechanical	PSA	PSA-35	35	50
1-SNUB-070-CCR654	70-1CC-R654	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-070-CCR770	70-1CC-R770	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-070-CCR79	70-1CC-R79	Mechanical	PSA	PSA-10	10	15
1-SNUB-070-CCR90N	70-1CC-R9ON	Mechanical	PSA	PSA-3	3	6
1-SNUB-070-CCR90S	70-1CC-R90S	Mechanical	PSA	PSA-3	3	6
1-SNUB-072-43751	A437-5-1	Mechanical	PSA	PSA-10	10	15
1-SNUB-072-43752	A437-5-2	Mechanical	PSA	PSA-3	3	6
1-SNUB-072-43753	A437-5-3	Mechanical	PSA	PSA-3	3	6
1-SNUB-072-CSR1	72-1CS-R1	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-072-CSR112	72-1CS-R112	Mechanical	PSA	PSA-10	10	15
1-SNUB-072-CSR149	72-1CS-R149	Mechanical	PSA	PSA-10	10	15
1-SNUB-072-CSR16	72-1CS-R16	Mechanical	PSA	PSA-3	3	6
1-SNUB-072-CSR18	72-1CS-R18	Mechanical	PSA	PSA-3	3	6
1-SNUB-072-CSR3	72-1CS-R3	Mechanical	PSA	PSA-3	3	6
1-SNUB-072-CSR36	72-1CS-R36	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-072-CSR37	72-1CS-R37	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-072-CSR48	72-1CS-R48	Mechanical	PSA	PSA-3	3	6
1-SNUB-072-CSR54	72-1CS-R54	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-072-CSR55	72-1CS-R55	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-072-CSR61	72-1CS-R61	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-072-CSR68	72-1CS-R68	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-432131	A432-1-31	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-43215	A432-1-5	Mechanical	PSA	PSA-10	10	15
1-SNUB-074-43221	A432-2-1	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-43233N	A432-3-3N	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-074-43233S	A432-3-3S	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-074-43261	A432-6-1	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-7411	1-74-11	Mechanical	PSA	PSA-10	10	15
1-SNUB-074-7414	1-74-14	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-7415	1-74-15	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-074-7417	1-74-17	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-074-7420	1-74-20	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-747	1-74-7	Mechanical	PSA	PSA-35	35	50
1-SNUB-074-748	1-74-8	Mechanical	PSA	PSA-35	35	50
1-SNUB-074-RHR17	74-1RHR-R17	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-RHR172	74-1RHR-R172	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR174	74-1RHR-R174	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR188	74-1RHR-R188	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR190L	74-1RHR-R190L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR190U	74-1RHR-R190U	Mechanical	PSA	PSA-1/4	1/4	0.35

Appendix G - Snubber Test Plan
Page 21 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
1-SNUB-074-RHR192L	74-1RHR-R192L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR192U	74-1RHR-R192U	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR194L	74-1RHR-R194L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR194U	74-1RHR-R194U	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR196L	74-1RHR-R196L	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR196U	74-1RHR-R196U	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-074-RHR197	74-1RHR-R197	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-074-RHR200	74-1RHR-R200	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-074-RHR37	74-1RHR-R37	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-RHR4	74-1RHR-R4	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-RHR48	74-1RHR-R48	Mechanical	PSA	PSA-3	3	6
1-SNUB-074-RHR58N	74-1RHR-R58N	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-074-RHR58S	74-1RHR-R58S	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-074-RHR96	74-1RHR-R96	Mechanical	PSA	PSA-3	3	6
1-SNUB-077-5601835	A560-18-35	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-078-4541204	A454-1-204	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-078-FPCR21	78-1FPC-R21	Mechanical	PSA	PSA-3	3	6
1-SNUB-078-FPCR28	78-1FPC-R28	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-078-FPCR31	78-1FPC-R31	Mechanical	PSA	PSA-1	1	1.5
1-SNUB-078-FPCR43	78-1FPC-R43	Mechanical	PSA	PSA-3	3	6
1-SNUB-078-FPCR60L	78-1FPC-R60L	Mechanical	PSA	PSA-10	10	15
1-SNUB-078-FPCR60U	78-1FPC-R60U	Mechanical	PSA	PSA-10	10	15
1-SNUB-078-FPCR70	78-1FPC-R70	Mechanical	PSA	PSA-3	3	6
1-SNUB-078-FPCR8	78-1FPC-R8	Mechanical	PSA	PSA-1/4	1/4	0.35
1-SNUB-090-60010N	A600-105-10N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-090-60010S	A600-105-10S	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-090-60011N	A600-105-11N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-090-60011S	A600-105-11S	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-090-60012N	A600-105-12N	Mechanical	PSA	PSA-1/2	1/2	0.65
1-SNUB-090-60012S	A600-105-12S	Mechanical	PSA	PSA-1/2	1/2	0.65

Appendix G - Snubber Test Plan
Page 22 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-001-0001-N	2-01A-303	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0001-S	2-01A-303	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0002-E	2-01A-304	Mechanical	PSA	PSA-10	10	15
2-SNUB-001-0002-W	2-01A-304	Mechanical	PSA	PSA-10	10	15
2-SNUB-001-0003-N	2-01A-307	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0003-S	2-01A-307	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0004	2-01A-308	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0005	2-01A-312	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0006	2-01A-313	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0007	2-01A-317	Mechanical	PSA	PSA-3	3	6
2-SNUB-001-0008-N	2-01A-343	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0008-S	2-01A-343	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0009	2-01A-349	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0010	2-01A-350	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0011	2-01A-348	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0012	2-01A-355	Mechanical	PSA	PSA-3	3	6
2-SNUB-001-0013	2-01A-380	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0014-N	2-01A-383	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0014-S	2-01A-383	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0015-N	2-01A-389	Mechanical	PSA	PSA-10	10	15
2-SNUB-001-0015-S	2-01A-389	Mechanical	PSA	PSA-10	10	15
2-SNUB-001-0016	2-01A-391	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0017	2-01A-392	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0018	2-01A-397	Mechanical	PSA	PSA-3	3	6
2-SNUB-001-0019-N	2-01A-423	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0019-S	2-01A-423	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0020	2-01A-428	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0021-N	2-01A-429	Mechanical	PSA	PSA-3	3	6
2-SNUB-001-0021-S	2-01A-429	Mechanical	PSA	PSA-3	3	6
2-SNUB-001-0023	2-01A-435	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0024	2-01A-439	Mechanical	PSA	PSA-3	3	6
2-SNUB-001-0026	47A400-11-82	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-001-0027	47A400-11-87	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-001-0028-N	47A400-11-77	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-001-0028-W	47A400-11-77	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-001-0408	2-01A-301	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0409	2-01A-340	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0410	2-01A-381	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0411	2-01A-387	Mechanical	PSA	PSA-35	35	50
2-SNUB-001-0412	2-01A-424	Mechanical	PSA	PSA-100	100	120
2-SNUB-001-0413	47A400-11-76	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-001-2SG1-A	STM GEN #1 SNUBBER A	Hydraulic	PMH			1000

Appendix G - Snubber Test Plan
Page 23 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-001-2SG1-B	STM GEN #1 SNUBBER B	Hydraulic	PMH			1000
2-SNUB-001-2SG1-C	STM GEN #1 SNUBBER C	Hydraulic	PMH			1000
2-SNUB-001-2SG1-D	STM GEN #1 SNUBBER D	Hydraulic	PMH			1000
2-SNUB-001-2SG1-E	STM GEN #1 SNUBBER E	Hydraulic	PMH			1000
2-SNUB-001-2SG2-A	STM GEN #2 SNUBBER A	Hydraulic	PMH			1000
2-SNUB-001-2SG2-B	STM GEN #2 SNUBBER B	Hydraulic	PMH			1000
2-SNUB-001-2SG2-C	STM GEN #2 SNUBBER C	Hydraulic	PMH			1000
2-SNUB-001-2SG2-D	STM GEN #2 SNUBBER D	Hydraulic	PMH			1000
2-SNUB-001-2SG2-E	STM GEN #2 SNUBBER E	Hydraulic	PMH			1000
2-SNUB-001-2SG3-A	STM GEN #3 SNUBBER A	Hydraulic	PMH			1000
2-SNUB-001-2SG3-B	STM GEN #3 SNUBBER B	Hydraulic	PMH			1000
2-SNUB-001-2SG3-C	STM GEN #3 SNUBBER C	Hydraulic	PMH			1000
2-SNUB-001-2SG3-D	STM GEN #3 SNUBBER D	Hydraulic	PMH			1000
2-SNUB-001-2SG3-E	STM GEN #3 SNUBBER E	Hydraulic	PMH			1000
2-SNUB-001-2SG4-A	STM GEN #4 SNUBBER A	Hydraulic	PMH			1000
2-SNUB-001-2SG4-B	STM GEN #4 SNUBBER B	Hydraulic	PMH			1000
2-SNUB-001-2SG4-C	STM GEN #4 SNUBBER C	Hydraulic	PMH			1000
2-SNUB-001-2SG4-D	STM GEN #4 SNUBBER D	Hydraulic	PMH			1000
2-SNUB-001-2SG4-E	STM GEN #4 SNUBBER E	Hydraulic	PMH			1000
2-SNUB-003-0031	2-03A-205	Mechanical	PSA	PSA-100	100	120
2-SNUB-003-0034	2-03A-244	Mechanical	PSA	PSA-100	100	120
2-SNUB-003-0035	2-03A-248	Mechanical	PSA	PSA-35	35	50
2-SNUB-003-0038	2-03A-285	Mechanical	PSA	PSA-35	35	50
2-SNUB-003-0039	2-03A-289	Mechanical	PSA	PSA-35	35	50
2-SNUB-003-0040	2-03A-320	Mechanical	PSA	PSA-35	35	50
2-SNUB-003-0041	2-03A-321	Mechanical	PSA	PSA-35	35	50

Appendix G - Snubber Test Plan

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-003-0042	2-03A-323	Mechanical	PSA	PSA-100	100	120
2-SNUB-003-0043-N	2-03A-328	Mechanical	PSA	PSA-100	100	120
2-SNUB-003-0046	2-03A-563	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0048	2-03B-35	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0049	2-03B-39	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-003-0050	2-03A-449	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0053	2-03A-455	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0054	2-03A-468	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0057	47A427-7-9	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0058	47A427-7-11	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0063	03B-2AFW-R226	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0064	03B-2AFW-R228	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0065	03B-2AFW-R229	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0066	03B-2AFW-R233	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0067	2-03A-369	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0068	2-03A-370	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0070-E	2-03A-374	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0070-W	2-03A-374	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0071	2-03A-377	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0072	03B-2AFW-R155	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0073-B	2-03B-71	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0073-T	2-03B-71	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0074	2-03B-82	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0075	2-03A-401	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0076	2-03A-402	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0077	2-03A-404	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0078	2-03A-411	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0079	2-03A-423	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0080	2-03A-426	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0082-B	47A401-8-20 (BOTTOM)	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0082-T	47A401-8-20 (TOP)	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0087	2-03A-527	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-003-0088	2-03A-582	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0089	2-03A-584	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0414	2-03A-400	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0415	2-03A-415	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0420-B	47A427-7-1	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-003-0420-T	47A427-7-1	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-003-0421-B	03B-2AFW-R213	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0421-T	03B-2AFW-R213	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0422	03B-2AFW-R087	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-003-0423	03B-2AFW-R094	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0424-N	03B-2AFW-R90	Mechanical	PSA	PSA-1	1	1.5

Appendix G - Snubber Test Plan
Page 25 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-003-0424-S	03B-2AFW-R90	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0426	03B-2AFW-R232	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0447-E	03B-2AFW-R171	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-003-0447-W	03B-2AFW-R171	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-003-0448	03B-2AFW-R242	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0449	2-03A-480	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0450-B	2-03A-482	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0450-T	2-03A-482	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0451	2-03A-483	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0452-H	2-03A-485	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0452-V	2-03A-485	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0453	2-03A-497	Mechanical	PSA		10	15
2-SNUB-003-0454	2-03A-503	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0455-E	47A401-8-21	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0455-W	47A401-8-21	Mechanical	PSA	PSA-10	10	15
2-SNUB-003-0456-B	2-47A427-3-57	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0456-T	2-47A427-3-57	Mechanical	PSA	PSA-3	3	6
2-SNUB-003-0513	2-47A401-9-15	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-003-0522	2-03B-037	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-003-0523	2-03A-445	Mechanical	PSA	PSA-3	3	6
2-SNUB-015-0091	47A400-7-93	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0093-E	47A400-6-306	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0093-W	47A400-6-306	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0095	47A400-6-310	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0096	2-01B-003	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0100	2-01B-095	Mechanical	PSA	PSA-10	10	15
2-SNUB-015-0101	2-01B-097	Mechanical	PSA		1/4	0.35
2-SNUB-015-0102	47A400-6-356	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0103	47A400-6-321	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0104	47A400-6-322	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0105	47A400-6-324	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0106	47A400-6-328	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0107	47A400-6-329	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0108	2-01B-123	Mechanical	PSA	PSA-10	10	15
2-SNUB-015-0109-L	2-01B-128	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-015-0109-U	2-01B-128	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-015-0110	2-01B-129	Mechanical	PSA		1	1.5
2-SNUB-015-0111	2-01B-130	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-015-0112	2-01B-131	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-015-0113	2-01B-251	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0114	2-01B-254	Mechanical	PSA	PSA-3	3	6
2-SNUB-015-0117	47A400-6-364	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0119	47A400-6-394	Mechanical	PSA	PSA-3	3	6
2-SNUB-015-0474	2-01B-099	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0475	2-01B-086	Mechanical	PSA	PSA-10	10	15

Appendix G - Snubber Test Plan
Page 26 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-015-0476	47A400-6-357	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-015-0514	2-47A400-6-413	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-015-0515	2-47A400-6-406	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0120	2-62A-101	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0122	2-62A-110	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0123	2-62A-291	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0124	2-68-365	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0126	2-47A406-14-67	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0127	2-62A-589	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0128	2-62A-630	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0129	2-62A-802	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0130	2-62A-808	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0131	2-62A-809	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0132	2-62A-810	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0133	47A406-13-56	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0134	2-62A-680	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0135	2-47A406-13-90	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0136	2-47A406-13-91	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0137-E	47A406-13-36	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0137-W	47A406-13-36	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0138-E	2-47A406-13-87	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0138-N	2-47A406-13-87	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0139	47A406-14-46	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0141	2-62A-494	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0142	47A406-13-2	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0146	47A406-14-16	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0147	47A406-14-23	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0148	47A406-14-25	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0149-N	47A406-14-26	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0149-S	47A406-14-26	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0150	47A406-14-35	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0151	47A406-14-37	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0152-E	47A406-14-38	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0152-W	47A406-14-38	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0154	47A406-14-40	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0157	2-62A-247	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0158-N	2-62A-256	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0158-S	2-62A-256	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0158-V	2-62A-256	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0159	2-47A406-12-101	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0161	2-62A-269	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0162-E	2-62A-271	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0162-W	2-62A-271	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0166	2-62A-531	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0167	2-62A-538	Mechanical	PSA	PSA-3	3	6

Appendix G - Snubber Test Plan
Page 27 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-062-0169	2-62A-624	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0170-N	47A406-12-79	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0170-S	47A406-12-79	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0170-W	47A406-12-79	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0171	47A406-12-82	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0172	47A465-3-52	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0178	2-62A-382	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0180	2-62A-358	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0182	2-62A-369	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0183	2-62A-371	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0184	2-62A-377	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0185	2-62A-557	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0186	2-62A-559	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0187	2-62A-561	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0188	2-62A-360	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0189	2-62A-362	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0191	2-62A-363	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0192	2-62A-148	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0193	2-62A-152	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0194	2-62A-153	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0195-N	2-62A-154	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0195-S	2-62A-154	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0196	2-62A-171	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0197	2-62A-174	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0198	2-62A-702	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0199	2-62A-707	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0200	2-62A-714	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0201	2-62A-720	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0202	2-62A-722	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0204	47A406-14-59	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0207	62-2CVC-R50	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0208	62-2CVC-R209	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0414	2-62A-463	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0417	2-62A-563	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0418	2-62A-366	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0419	2-62A-320	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0420	2-62A-357	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0428	2-62A-536	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0429	2-62A-254	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0430	2-62A-533	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0431	2-62A-262	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0432	2-62A-625	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0433	2-62A-250	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0434-E	2-47A406-12-93	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0434-W	2-47A406-12-93	Mechanical	PSA	PSA-3	3	6

Appendix G - Snubber Test Plan
Page 28 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-062-0435	2-47A406-12-89	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-062-0436-E	2-47A406-12-94	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0436-E	2-47A406-12-94	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0436-W	2-47A406-12-94	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0436-W	2-47A406-12-94	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0438	47A406-12-97	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0438-B	2-47A406-12-97	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0438-T	2-47A406-12-97	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0439-N	2-47A406-12-98	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0439-S	2-47A406-12-98	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0466	2-62A-186	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0505	2-62A-294	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0506	2-47A560-38-2	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-062-0507	2-47A406-3-57	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0508	2-47A406-3-58	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0509-B	62-2CVC-R62	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0509-T	62-2CVC-R62	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0510-B	62-2CVC-R61	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0510-T	62-2CVC-R61	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-062-0511	2-47A406-2-55	Mechanical	PSA	PSA-3	3	6
2-SNUB-062-0512	2-47A406-13-106	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-063-0209	2-63-001	Mechanical	PSA	?	?	?
2-SNUB-063-0210	2-63-005	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0211	2-63-008	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0212	2-63-011	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0213	2-63-014	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0214	2-63-018	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0215	2-63-019	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0216	2-63-022	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0217	2-63-023	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0218	2-63-024	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0220	2-63-029	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0221	2-63-030	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0222	2-63-031	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0223	2-63-032	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0225	2-63-035	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0226-E	2-63-038	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0226-W	2-63-038	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0228	2-63-453	Mechanical	PSA	PSA-35	35	50
2-SNUB-063-0229	2-63-458	Mechanical	PSA	PSA-35	35	50
2-SNUB-063-0230	2-63-459	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0235	47A435-12-62	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0236	47A435-12-89	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0237	47A435-13-60	Mechanical	PSA	?	?	?
2-SNUB-063-0239-N	47A435-14-80	Mechanical	PSA	PSA-1/2	1/2	0.65

Appendix G - Snubber Test Plan
Page 29 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-063-0239-S	47A435-14-80	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0242	47A435-15-70	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0246	2-63-042	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0247	2-63-043	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0248	2-63-055	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0249	2-63-062	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0250	2-63-064	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-063-0253	2-63-072	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0254	2-63-078	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0258-N	2-63-095	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0260	2-63-169	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0264	2-63-528	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0265	2-63-185	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0266	2-63-526	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0267	2-63-520	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0268	2-63-156	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0269	2-63-161	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0270	2-63-163	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0271	2-63-164	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0272-N	47A435-16-62	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0272-S	47A435-16-62	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0273-S	47A435-16-66	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-063-0274-E	47A435-16-65	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0277-E	47A435-16-55	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0277-S	47A435-16-55	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0278	47A435-16-51	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0279-N	47A435-16-50	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0279-S	47A435-16-50	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0280-E	47A435-16-21	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0280-W	47A435-16-21	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0282-N	47A435-16-34	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0282-S	47A435-16-34	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0283	47A435-16-31	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0284	47A435-16-47	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0286-N	47A435-16-33	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0286-S	47A435-16-33	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0289	2-63-365	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0290	2-63-592	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0291-V	47A432-3-6	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0292	47A432-3-8	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0293	2-63-236	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0295	47A437-2-24	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0298	63-2SIS-R216	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0299	63-2SIS-R214	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0300	63-2SIS-R211	Mechanical	PSA	PSA-10	10	15

Appendix G - Snubber Test Plan
Page 30 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-063-0301	63-2SIS-R245	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0302	63-2SIS-R242	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0303-N	63-2SIS-R240	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0303-S	63-2SIS-R240	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0304	63-2SIS-R276	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0305	63-2SIS-R155	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0306-N	63-2SIS-R142	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0306-S	63-2SIS-R142	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0307	63-2SIS-R170	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0308-B	47A432-1-8	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0308-T	47A432-1-8	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0309	47A432-2-2	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0310	47A437-2-22	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0418-N	63-2SIS-R168	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0418-S	63-2SIS-R168	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0440	2-47A435-12-6	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0441	2-47A435-12-93	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0442	2-47A435-16-73	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0443	2-47A435-16-77	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0444	2-47A435-16-76	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0446	47A435-16-17	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0468	2-47A437-1-62	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0479	2-47A435-16-78	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0480	47A435-3-8	Mechanical	PSA	PSA-35	35	50
2-SNUB-063-0481	47A437-2-4	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0484-S	2-63-095	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0488	2-47A435-14-107	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0489	47A435-15-79	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0490	47A435-15-97	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0492	2-47A432-6-17	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0493-B	2-47A435-3-18	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0493-T	2-47A435-3-18	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0494	2-63-584	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0495	2-47A432-3-13	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0496	2-47A432-3-14	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0497	2-47A432-3-15	Mechanical	PSA	PSA-3	3	6
2-SNUB-063-0498	2-47A432-3-16	Mechanical	PSA	PSA-10	10	15
2-SNUB-063-0499	2-47A435-13-117	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-063-0500	2-47A435-13-118	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-063-0502	2-47A35-14-109	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-063-0503	2-63-285	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0504	2-63-573	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-063-0519	2-63-069	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0311	2-68-030	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0313	2-68-023	Mechanical	PSA	PSA-1/2	1/2	0.65

Appendix G - Snubber Test Plan
Page 31 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-068-0314	2-68-024	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0315	2-68-021	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0316	2-68-020	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0317	2-68-031	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0318	2-68-032	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-068-0319	2-68-033	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0320-E	2-68-036	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0321	2-68-050	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-068-0322	2-68-053	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-068-0323	2-68-044	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-068-0324	2-68-042	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0326	2-68-073	Mechanical	PSA	?	?	?
2-SNUB-068-0328	2-68-093	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0329	2-68-096	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0330-N	2-68-100	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0330-W	2-68-100	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-068-0331	2-47A465-2-69	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0332	2-68-111	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0333	2-68-117	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0334	2-68-120	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0335-E	2-68-406	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0335-W	2-68-406	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0336-E	2-68-407	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0336-W	2-68-407	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0337-E	2-68-408	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0337-W	2-68-408	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0338-E	2-68-409	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0338-W	2-68-409	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0339-E	2-68-410	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0339-W	2-68-410	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0340-N	2-68-415	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0340-S	2-68-415	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0341	2-68-416	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0342-E	2-68-418	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0342-W	2-68-418	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0343-E	2-68-424	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0343-W	2-68-424	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0344	2-68-427	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0345-N	2-68-428	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0345-S	2-68-428	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0346-E	2-68-429	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0346-W	2-68-429	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0347	2-68-431	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0348	2-68-444	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0349	2-68-445	Mechanical	PSA	PSA-3	3	6

Appendix G - Snubber Test Plan
Page 32 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-068-0350-N	2-47A465-2-23	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0350-S	2-47A465-2-23	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0355-B	2-47A465-2-32	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0355-T	2-47A465-2-32	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0356-B	2-47A465-2-33	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0356-T	2-47A465-2-33	Mechanical	PSA	PSA-10	10	15
2-SNUB-068-0357	47A465-8-63	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0359-E	47A465-1-69	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0359-W	47A465-1-69	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0360	47A465-1-71	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0361	47A465-1-73	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0362-E	47A465-1-81	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0362-W	47A465-1-81	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0363-E	47A465-1-82	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0363-W	47A465-1-82	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0365	47A465-2-41	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-068-0366	47A465-2-46	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-068-0457	2-68-105	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0458-E	2-68-422	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0458-W	2-68-422	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0460-N	2-68-405	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0460-S	2-68-405	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0461-E	2-68-449	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0461-W	2-68-449	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0462	2-68-447	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0463-E	2-68-404	Mechanical	PSA	PSA-35	35	50
2-SNUB-068-0463-W	2-68-404	Mechanical	PSA	PSA-35	35	50
2-SNUB-068-0464-N	2-68-412	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0464-S	2-68-412	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0465	2-47A465-1-108	Mechanical	PSA	PSA-3	3	6
2-SNUB-068-0469	2-68-034	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-068-0470	47A465-8-60	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-068-0477	47A465-8-61	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-068-0478	2-47A465-8-72	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-068-0520-E	47A465-4-7	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-068-0520-W	47A465-4-7	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-070-0368	2-70-800	Mechanical	PSA	PSA-3	3	6
2-SNUB-070-0369	2-70-801	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-070-0370-N	2-70-803	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-070-0370-S	2-70-803	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-070-0371	2-70-822	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-072-0372	72-2CS-R112	Mechanical	PSA	PSA-10	10	15
2-SNUB-072-0373	72-2CS-R54	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-072-0374	72-2CS-R149	Mechanical	PSA	PSA-3	3	6
2-SNUB-072-0375	72-2CS-R119	Mechanical	PSA	PSA-35	35	50

Appendix G - Snubber Test Plan
Page 33 of 33

Snubber ID	Support ID	Type	Mfg	Model	Size	Rated Load (kips)
2-SNUB-072-0376	72-2CS-R9	Mechanical	PSA	PSA-3	3	6
2-SNUB-072-0516	2-47A437-2-36	Mechanical	PSA	PSA-3	3	6
2-SNUB-072-0517	2-47A437-11-1	Mechanical	PSA	PSA-3	3	6
2-SNUB-072-0518	2-47A437-1-63	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0378	2-74-008	Mechanical	PSA	PSA-10	10	15
2-SNUB-074-0379	2-74-011	Mechanical	PSA	PSA-10	10	15
2-SNUB-074-0380	2-74-015	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-074-0381	2-74-017	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-074-0382	47A432-3-4	Mechanical	PSA	PSA-10	10	15
2-SNUB-074-0383	74-2RHR-R96	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0384	74-2RHR-R37	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0385-E	74-2RHR-R3	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0385-W	74-2RHR-R3	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0386-E	74-2RHR-R6	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0386-W	74-2RHR-R6	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0387-N	74-2RHR-R14	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-074-0387-S	74-2RHR-R14	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-074-0388	74-2RHR-R58	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0389	74-2RHR-R28	Mechanical	PSA	PSA-10	10	15
2-SNUB-074-0390	74-2RHR-R216	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0391	74-2RHR-R220	Mechanical	PSA	PSA-10	10	15
2-SNUB-074-0392	74-2RHR-R230	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0393	74-2RHR-R232	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0394	47A435-2-25	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0396-N	74-2RHR-R155	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0396-S	74-2RHR-R155	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0398	63-2SIS-R192	Mechanical	PSA	PSA-1/2	1/2	0.65
2-SNUB-074-0399	63-2SIS-R194	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-074-0400	63-2SIS-R195	Mechanical	PSA	PSA-1/4	1/4	0.35
2-SNUB-074-0401	47A406-3-19	Mechanical	PSA	?	?	?
2-SNUB-074-0402-B	47A432-1-19	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0402-T	47A432-1-19	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0403	74-2RHR-R174	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0404	74-2RHR-R185	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0405	74-2RHR-R197	Mechanical	PSA	PSA-1	1	1.5
2-SNUB-074-0485	2-47A435-2-28	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0486	2-47A435-1-5	Mechanical	PSA	PSA-3	3	6
2-SNUB-074-0501	2-74-010	Mechanical	PSA	PSA-3	3	6

ENCLOSURE 2
Tennessee Valley Authority
Watts Bar Nuclear Plant, Units 1 and 2
Docket Nos. 50-390, -391

Exemption from 10 CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to Allow Concurrent Interval with Unit 2

Requirements of 10 CFR 50.55a and ISTA-3120(d)

Title 10 of Code of Federal Regulations (CFR) 50.55a(f)(4)(i) requires Inservice Testing (IST) to verify operational readiness of pumps and valves, whose function is required for safety, conducted during the initial 120-month interval to comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph 10 CFR 50.55a(b) on the date 12 months before the date of issuance of the operating license.

10 CFR 50.55a(f)(4)(ii) requires IST to verify operational readiness of pumps and valves, whose function is required for safety, conducted during successive 120-month intervals to comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph 10 CFR 50.55a(b) 12 months before the start of the 120-month interval.

In addition, the American Society of Mechanical Engineers (ASME) Operating and Maintenance (OM) Code ISTA-3120(d) states that each of the inservice test intervals may be extended or deceased by as much as 1 year. Adjustments shall not cause successive intervals to be altered by more than 1 year from the original pattern intervals.

Background

The first WBN Unit 1 IST interval was extended to 11 years, and the second interval was then reduced to 9 years in order to return subsequent intervals to their original schedule in accordance with ASME OM Code, ISTA-3120(d). The WBN Unit 1 IST Program is currently in its second 120-month IST interval, which is scheduled to end on May 26, 2016. The WBN Unit 2 IST Program initial 120-month interval will begin at the start of WBN Unit 2 commercial service, which is currently scheduled for August 2015 (subject to change as Unit 2 draws nearer to completion).

The most recent Status Report of NRC Activities of Potential Interest to OM Main Committee (ADAMS Accession Number ML13168A466), indicates that the next proposed draft of 10 CFR 50.55a rulemaking to incorporate the 2012 Edition of the ASME OM Code is tentatively scheduled to be issued in June 2014 and the final rule is tentatively scheduled to be published in June 2015.

Based on the rules and anticipated dates provided above, the edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b) is expected to be the same (ASME OM Code, 2004 Edition through 2006 Addenda) for both the WBN Unit 1 third 120-month interval and WBN Unit 2 initial 120-month interval.

ENCLOSURE 2
Tennessee Valley Authority
Watts Bar Nuclear Plant, Units 1 and 2
Docket Nos. 50-390, -391

Exemption from 10 CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to Allow Concurrent Interval with Unit 2

Exemption Request

Pursuant to 10 CFR 50.12, the Tennessee Valley Authority (TVA) requests exemption from the requirements of 10 CFR 50.55a(f)(4)(ii) at Watts Bar Nuclear Plant (WBN) Unit 1 to allow alignment of the third inservice test (IST) program 120-month interval dates to be concurrent with WBN Unit 2 first interval date. Furthermore, it is requested that both WBN Unit 1 and WBN Unit 2 be allowed to use the latest edition and addenda of the ASMEOM Code currently referenced by 10 CFR 50.55a(b) which is ASME OM Code, 2004 Edition through 2006 Addenda. As noted above, compliance with OM Code ISTA-3120(d) will not be possible due to the shortening of the second WBN Unit 1 interval.

Special Circumstances of 10 CFR 50.12

This section will describe the special circumstances required by 10 CFR 50.12 as stated below and provides TVA's special circumstances for requesting the exemption:

(a) The Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of the regulations of this part, which are

(1) Authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security.

The IST/PST program will still be implemented and performed as required by regulation which will not result in undue risk to the public health and safety and are consistent with the common defense and security.

(2) The Commission will not consider granting an exemption unless special circumstances are present. Special circumstances are present whenever--

(i) Application of the regulation in the particular circumstances conflicts with other rules or requirements of the Commission; or

There are no conflicts with other rules or requirements.

(ii) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; or

Strict adherence to the 120-month interval is not necessary to achieve the underlying purpose of the rule. The operational readiness of the pumps and valves, whose function is required for safety, will be adequately assured using the requirements of ASME Code, 2004 Edition through 2006 Addenda. Alignment of the third interval program at Unit 1 with the first

interval program at Unit 2 meets the underlying purpose to perform IST in accordance with 10 CFR 50.55a(f).

(iii) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated; or

Unless the exemption request is granted, there will be an imposed burden and undue hardship to maintain both unit IST programs on different 10-year intervals. The current interval schedule represents about a 9 – 10 month gap between the WBN Unit 1 and WBN Unit 2 intervals. This would require separate WBN Unit 1 IST Program and WBN Unit 2 IST Program development (including separate unit specific relief requests), internal TVA review/validation, and subsequent NRC review of unit specific relief requests that may be submitted.

Alternatively, with the exemption request being approved, the IST Program at WBN Unit 1 would be updated to align the third 120-month interval date with the first 120-month interval date of WBN Unit 2, which starts on the unit commercial service date. This alignment will permit single program submittals and subsequent 10-year program updates for both units and simplify the review of any relief requests that may be submitted during interval updates from this point forward.

Because the IST program test activities are calendar based, a reduction of the 10-year interval would not result in a reduction in testing requirements or testing performed (i.e., whether the components are tested late in one interval versus early in the next interval does not change or alter the actual periods between component tests.)

(iv) The exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the grant of the exemption; or

There will be no change in plant safety as a result of this exemption being granted. The overall effect of shortening the WBN Unit 1 second 10-year interval does not have a safety impact. Because the testing is calendar based, the inservice testing of the affected components/ equipment will be performed on the same schedule regardless whether that testing is considered to occur at the end of one test interval or the beginning of the next.

Exemption from 10 CFR 50.55a(f)(4)(ii) for Watts Bar Unit 1 to Allow Concurrent Interval with Unit 2

(v) The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation; or

This exemption will be a one-time exemption to align the test intervals for both units. Implementation of the IST/PST program will ensure continued compliance with the regulations.

(vi) There is present any other material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption. If such condition is relied on exclusively for satisfying paragraph (a)(2) of this section, the exemption may not be granted until the Executive Director for Operations has consulted with the Commission.

There are no material circumstances present that were not considered when the regulation was adopted.

ENCLOSURE 3
Tennessee Valley Authority
Watts Bar Nuclear Plant, Units 1 and 2
Docket Nos. 50-390, -391

IST-RR-1 - Pump Vibration Reference Values and Acceptance Criteria
Page 1 of 4

Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(i)
Alternative Provides Acceptable Level of Quality and Safety

ASME Code Component(s) Affected

Pump ID	Pump Description	Pump Group	Pump Type
0-PMP-31-36/1-A	SHUTDOWN BOARD ROOM CW PUMP A-A	A	C-H
0-PMP-31-49/1-B	SHUTDOWN BOARD ROOM CW PUMP B-B	A	C-H
0-PMP-31-80/1-A	MAIN CONTROL ROOM CW PUMP A-A	A	C-H
0-PMP-31-96/1-B	MAIN CONTROL ROOM CW PUMP B-B	A	C-H
0-PMP-31-128/1-A	ELECTRICAL BOARD ROOM CW PUMP A-A	A	C-H
0-PMP-31-129/1-B	ELECTRICAL BOARD ROOM CW PUMP B-B	A	C-H
0-PMP-67-28-A	ESSENTIAL RAW COOLING WATER PUMP A-A	A	VLS
0-PMP-67-32-A	ESSENTIAL RAW COOLING WATER PUMP B-A	A	VLS
0-PMP-67-36-A	ESSENTIAL RAW COOLING WATER PUMP C-A	A	VLS
0-PMP-67-40-A	ESSENTIAL RAW COOLING WATER PUMP D-A	A	VLS
0-PMP-67-47-B	ESSENTIAL RAW COOLING WATER PUMP E-B	A	VLS
0-PMP-67-51-B	ESSENTIAL RAW COOLING WATER PUMP F-B	A	VLS
0-PMP-67-55-B	ESSENTIAL RAW COOLING WATER PUMP G-B	A	VLS
0-PMP-67-59-B	ESSENTIAL RAW COOLING WATER PUMP H-B	A	VLS
0-PMP-70-51-S	CCS PUMP C-S	A	C-H
1-PMP-3-1A-S	TD AUX FEEDWATER PUMP 1A-S	B	C-H
1-PMP-3-118-A	AUX FEEDWATER PMP 1A-A	A	C-H
1-PMP-3-128-B	AUX FEEDWATER PMP 1B-B	A	C-H
1-PMP-62-104-B	CENTRIFUGAL CHARGING PUMP 1B-B	A	C-H
1-PMP-62-108-A	CENTRIFUGAL CHARGING PUMP 1A-A	A	C-H
1-PMP-62-230-A	BORIC ACID TRANSFER PUMP 1A-A	A	C-H
1-PMP-62-232-B	BORIC ACID TRANSFER PUMP 1B-B	A	C-H
1-PMP-63-10-A	SAFETY INJECTION PUMP 1A-A	B	C-H
1-PMP-63-15-B	SAFETY INJECTION PUMP 1B-B	B	C-H
1-PMP-67-431-A	ERCW SCREEN WASH PUMP 1A-A	A	VLS
1-PMP-67-440-B	ERCW SCREEN WASH PUMP 1B-B	A	VLS
1-PMP-70-38-B	CCS PUMP 1B-B	A	C-H
1-PMP-70-46-A	CCS PUMP 1A-A	A	C-H
1-PMP-72-10-B	CONTAINMENT SPRAY PUMP 1B-B	B	C-H
1-PMP-72-27-A	CONTAINMENT SPRAY PUMP 1A-A	B	C-H
1-PMP-74-10-A	RHR PUMP 1A-A	A	C-V
1-PMP-74-20-B	RHR PUMP 1B-B	A	C-V
2-PMP-3-2A-S	TD AUX FEEDWATER PUMP 2A-S	B	C-H
2-PMP-3-118-A	AUX FEEDWATER PMP 2A-A	A	C-H
2-PMP-3-128-B	AUX FEEDWATER PMP 2B-B	A	C-H

IST-RR-1 - Pump Vibration Reference Values and Acceptance Criteria

Pump ID	Pump Description	Pump Group	Pump Type
2-PMP-62-104-B	CENTRIFUGAL CHARGING PUMP 2B-B	A	C-H
2-PMP-62-108-A	CENTRIFUGAL CHARGING PUMP 2A-A	A	C-H
2-PMP-62-230-A	BORIC ACID TRANSFER PUMP 2A-A	A	C-H
2-PMP-62-232-B	BORIC ACID TRANSFER PUMP 2B-B	A	C-H
2-PMP-63-10-A	SAFETY INJECTION PUMP 2A-A	B	C-H
2-PMP-63-15-B	SAFETY INJECTION PUMP 2B-B	B	C-H
2-PMP-67-437-A	ERCW SCREEN WASH PUMP 2A-A	A	VLS
2-PMP-67-447-B	ERCW SCREEN WASH PUMP 2B-B	A	VLS
2-PMP-70-33-B	CCS PUMP 2B-B	A	C-H
2-PMP-70-59-A	CCS PUMP 2A-A	A	C-H
2-PMP-72-10-B	CONTAINMENT SPRAY PUMP 2B-B	B	C-H
2-PMP-72-27-A	CONTAINMENT SPRAY PUMP 2A-A	B	C-H
2-PMP-74-10-A	RHR PUMP 2A-A	A	C-V
2-PMP-74-20-B	RHR PUMP 2B-B	A	C-V

See the program document contained in Enclosure 1 for additional information for pump group and type.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

ISTB-3300 Reference Values

(a) Initial reference values shall be determined from the results of testing meeting the requirements of ISTB- 3100, Preservice Testing, or from the results of the first inservice test.

Reason for Request

Relief is being requested from establishing a vibration reference value (V_r) based solely on data collected during preservice or inservice testing for those vibration points that have unusually low levels of vibration. This request applies only to values for V_r associated with vibration testing.

Small values for V_r result in small acceptable ranges for pump operation. The acceptable range defined in Table ISTB-5121-1 and Table ISTB-5221-1 is less than or equal to $2.5V_r$. Based on a small acceptable range, a smooth running pump could be subject to unnecessary corrective action caused by numerically small changes in vibration levels.

Proposed Alternative and Basis for Use

Proposed Alternative

Pumps with a measured V_r less than or equal to 0.05 inches per second (ips) for a particular vibration measurement location shall have subsequent test results for that location compared to an acceptable range based on 0.05 ips. In addition to the applicable ASME OM Code requirements, all pumps in the IST Program will be included in and will remain in the Predictive Maintenance Program regardless of their smooth running status.

When new reference values are established, the measured parameters will be evaluated for each location to determine if the provisions of this relief request still apply. If the measured V_r is greater than 0.05 ips, the requirement of ISTB-3300 will be applied. Conversely, if the measured V_r is less than or equal to 0.05 ips, a minimum value of 0.05 ips will be used in determining the acceptable, alert, and required action ranges.

Basis for Use

For very small reference values, hydraulic noise and instrument error can be a significant portion of the vibration reading and affect the repeatability of subsequent measurements. Also, experience gathered from the Unit 1 preventive maintenance program has shown that changes in vibration levels in the range of 0.05 ips do not normally indicate significant degradation in pump performance.

To avoid unnecessary corrective action, a minimum V_r value of 0.05 ips is being established for velocity measurements. This minimum value will be applied to individual vibration locations for the pumps listed in the above table where the measured reference value is less than 0.05 ips.

The Predictive Maintenance Program currently employs the following predictive monitoring techniques on an as applicable and as needed basis:

A. Vibration monitoring and analysis beyond that required by ISTB,

B. Oil sampling and analysis, and

C. Thermographic Analysis.

Bearing temperature trending is available for a number of the components through the plant process computer system.

If the measured parameters are discovered to be outside the normal operating range or to be trending toward an unacceptable degraded state, appropriate actions are taken that may include:

A. Increased monitoring to establish rate of change,

B. Review of component specific information to identify cause, and

C. Removal of the pump from service to perform maintenance.

This alternative to the requirements of ISTB-3300 provides an acceptable level of quality and safety.

Duration of Proposed Alternative

This request is for the duration of the Unit 2 PST period and for the duration of the first concurrent Unit 1 / Unit 2 IST 120-month interval (third interval for Unit 1 and first interval for Unit 2).

Precedents

The following NRC accepted precedent submittals are noted for similar relief requests:

WBN Unit 1 second IST interval, which was applicable to Unit 1 and common Unit 1 and Unit 2 pumps (*Watts Bar Nuclear Plant, Unit 1 - Requests for Relief for the Second 10-Year Pump and Valve Inservice Testing Program*, ADAMS Accession Number ML070090504, dated March 9, 2007).

Sequoyah Nuclear Plant (SQN) Units 1 and 2 and WBN Units 1 and 2 are very similar in design with identical pump manufacturer/model applications in many cases. SQN was granted a similar relief request for their third IST interval (*Sequoyah Nuclear Plant, Units 1 and 2 - Request for Relief from the Requirements of the ASME Code*, ADAMS Accession Number ML061790733, dated July 27, 2006).

Beaver Valley Power Station, Unit No. 2 - Relief Request Nos. PRR1, PRR2, PRR3, PRR4, PRR5, PRR6, PRR7, PRR8, PRR9, and VRR1 Regarding the Third 10-Year Inservice Testing Program Relief Requests, (ADAMS Accession Number ML080140299, dated February 14, 2008).

James A. FitzPatrick Nuclear Power Plant - Relief Requests for the Fourth Interval Inservice Testing Program, (ADAMS Accession Number ML072910422, dated November 27, 2007).

North Anna Power Station, Units 1 and 2 RE: Inservice Testing Program for Pump and Valves, Third Ten Year Interval Update, (ADAMS Accession Number ML020280439, dated January 28, 2002).

IST-RR-2 - ERCW Screen Wash Pump Test Method

Relief Request in Accordance with 10 CFR 50.55a(f)(5)(iii)
Inservice Testing Impracticality

ASME Code Component(s) Affected

Pump ID	Pump Description	Pump Group	Pump Type
1-PMP-67-431-A	ERCW SCREEN WASH PUMP 1A-A	A	VLS
1-PMP-67-440-B	ERCW SCREEN WASH PUMP 1B-B	A	VLS
2-PMP-67-437-A	ERCW SCREEN WASH PUMP 2A-A	A	VLS
2-PMP-67-447-B	ERCW SCREEN WASH PUMP 2B-B	A	VLS

See the program document contained in Enclosure 1 for additional information for pump group and type.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

ISTB-5210 Preservice Testing

(a) In systems where resistance can be varied, flow rate and differential pressure shall be measured at a minimum of five points. If practicable, these points shall be from pump minimum flow to at least pump design flow. A pump curve shall be established based on the measured points. At least one point shall be designated as the reference point(s). Data taken at the reference point will be used to compare the results of inservice tests. A pump curve need not be established for pumps in systems where resistance cannot be varied.

ISTB-5221 Group A Test Procedure

(b) The resistance of the system shall be varied until the flow rate equals the reference point. The differential pressure shall then be determined and compared to its reference value. Alternatively, the flow rate shall be varied until the differential pressure equals the reference point and the flow rate determined and compared to the reference flow rate value.

ISTB-5223 Comprehensive Test Procedure

(b) The resistance of the system shall be varied until the flow rate equals the reference point. The differential pressure shall then be determined and compared to its reference value. Alternatively, the flow rate shall be varied until the differential pressure equals the reference point and the flow rate determined and compared to the reference flow rate value.

Impracticality of Compliance

The configuration of the ERCW Screen Wash Pump discharge piping system does not provide straight lengths of piping that will support the installation of a permanent flow measuring device or the utilization of a portable flow measuring device capable of providing accurate flow rate measurements. The lack of permanent or temporary flow instrumentation makes it impractical to adjust pump flow to specific value(s) and measure the associated differential pressure as required for performance of Preservice, Group A, and Comprehensive pump tests.

Burden Caused by Compliance

Significant system modifications, such as piping rerouting and support redesign, would be required to obtain a configuration that would provide reliable flow readings. Refer to Basis for Use section for further details.

Proposed Alternative and Basis for Use

Proposed Alternative

Testing will be performed by setting the system resistance to the same point for each test with the throttle valves full open. Flow will not be measured. The remaining variable that could affect system resistance is the spray nozzles. The condition of the spray nozzles will be inspected during each test performance with corrective actions initiated as necessary, thus providing assurance that the spray nozzle condition will not affect flow rate. With system resistance maintained constant for each test, pump degradation would be identified through changes in differential pressure. Differential pressure is calculated using inlet (based on lake level or suction pressure) and discharge pressure. The pump will be trended for degradation based on differential pressure at this point. Vibration readings will also be taken at this reference point. The pumps will be tested in this manner for the Preservice Test Program, the quarterly Group A, and the biennial Comprehensive inservice tests.

Instrument accuracy and acceptance criteria for pump differential pressure and vibration will meet the requirements of Table ISTB-3510-1 and Table ISTB-5221-1, respectively.

Preservice test data for differential pressure and vibration data will be evaluated to verify it represents acceptable pump operation and will be used as reference values for subsequent quarterly Group A and Comprehensive inservice tests.

Basis for Use

The piping design does not provide permanent in-line instrumentation to measure flow. The pump design (vertical line shaft) and discharge piping do not allow the use of portable flow measuring equipment such as ultrasonic flow meters. These pumps take suction from the pump pit directly below the pump deck and are positioned on the deck adjacent to the traveling screens. The discharge piping for each pump is short and open ended, containing several elbows, reducers, and valves prior to entering the traveling screen enclosure. The configuration of this piping system does not provide straight lengths of piping that will support the installation of a permanent flow measuring device or the utilization of a portable flow measuring device capable of providing accurate flow rate measurements. Significant system modifications, such as piping rerouting and support redesign, would be required to obtain a configuration that would provide reliable flow readings.

Flow is not the critical parameter for these pumps. The nature of their operation is to ensure that sufficient pressure is maintained at the spray nozzles during flushing operations of the traveling water screens to ensure that sufficient force is exerted on the debris accumulated on the screen to remove it. This can be verified by visual observation of the flushing operation.

Maintenance history was reviewed for spray nozzle plugging and it was determined that nozzle plugging is infrequent. The spray nozzles are inspected by operations personnel during spray operation with corrective maintenance initiated as required.

Based on the information provided above, compliance with the Code requirements is impractical and the proposed alternative provides reasonable assurance of the operational readiness of the ERCW Screen Wash Pumps.

Duration of Proposed Alternative

This request is for the duration of the first concurrent Unit 1 / Unit 2 IST 120-month Inservice Testing interval (third interval for Unit 1 and first interval for Unit 2).

Precedents

This relief request was granted for the WBN Unit 1 second interval (*Watts Bar Nuclear Plant, Unit 1 - Requests for Relief for the Second 10-Year Pump and Valve Inservice Testing Program*, ADAMS Accession Number ML070090504, dated March 9, 2007 and *Watts Bar Nuclear Plant, Unit 1 - Safety Evaluation of Relief Request PV-02, Revision 1, For the Second 10-Year Interval of the Inservice Testing Program*, ADAMS Accession Number ML102360191, dated August 30, 2010).

A similar relief request was granted for Sequoyah Units 1 and 2 third interval (*Sequoyah Nuclear Plant, Units 1 and 2 - Request for Relief from the Requirements of the ASME Code*, ADAMS Accession Number ML061790733, dated July 27, 2006).

IST-RR-3 - Reactor Head Vent Valve Stroke Time Testing

Relief Request in Accordance with 10 CFR 50.55a(f)(5)(iii)
Inservice Testing Impracticality

ASME Code Component(s) Affected

Valve ID	Function	Drawing /Coord	Cat	Act/Pass	Class	Size	Type	Act
1-FSV-68-396-B	REACTOR VESSEL HEAD VENT	1-47W813-1 / F-5	B	Active	2	1	GL	SO
1-FSV-68-397-A	REACTOR VESSEL HEAD VENT	1-47W813-1 / G-6	B	Active	2	1	GL	SO
2-FSV-68-396-B	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-5	B	Active	2	1	GL	SO
2-FSV-68-397-A	REACTOR VESSEL HEAD VENT	2-47W813-1 / F-6	B	Active	2	1	GL	SO

See the program document contained in Enclosure 1 for additional information for valve category, type, and actuator. Referenced Drawings are not needed for review but are available upon request.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

ISTC-3300 Reference Values

Reference values shall be determined from the results of preservice testing or from the results of inservice testing. These tests shall be performed under conditions as near as practicable to those expected during subsequent inservice testing...

ISTC-3310 Effects of Valve Repair, Replacement, or Maintenance on Reference Values

When a valve or its control system has been replaced, repaired, or has undergone maintenance that could affect the valve's performance, a new reference value shall be determined or the previous value reconfirmed by an inservice test run before the time it is returned to service or immediately if not removed from service...

ISTC-3510 Exercising Test Frequency

Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months,...

ISTC-3560 Fail-Safe Valves

Valves with fail-safe actuators shall be tested by observing the operation of the actuator upon loss of valve actuating power in accordance with the exercising frequency of ISTC-3510.

ISTC-5151 Valve Stroke Testing

(a) Active valves shall have their stroke times measured when exercised in accordance with ISTC-3500.

(b) The limiting value(s) of full-stroke time of each valve shall be specified by the Owner.

(c) Stroke time shall be measured to at least the nearest second.

(d) Any abnormality or erratic action shall be recorded (see ISTC-9120), and an evaluation shall be made regarding need for corrective action.

ISTC-5152 Stroke Test Acceptance Criteria

Test results shall be compared to reference values established in accordance with ISTC-3300, ISTC-3310, or ISTC-3320.

(a) Valves with reference stroke times of greater than 10 sec shall exhibit no more than ±25% change in stroke time when compared to the reference value.

(b) Valves with reference stroke times of less than or equal to 10 sec shall exhibit no more than ±50% change in stroke time when compared to the reference value.

(c) Valves that stroke in less than 2 sec may be exempted from ISTC-5152(b). In such cases the maximum limiting stroke time shall be 2 sec.

ISTC-5153 Stroke Test Corrective Action

(a) If a valve fails to exhibit the required change of obturator position or exceeds the limiting values of full-stroke time [see ISTC-5151(b)], the valve shall be immediately declared inoperable.

(b) Valves with measured stroke times that do not meet the acceptance criteria of ISTC-5152 shall be immediately retested or declared inoperable. If the valve is retested and the second set of data also does not meet the acceptance criteria, the data shall be analyzed within 96 hr to verify that the new stroke time represents acceptable valve operation, or the valve shall be declared inoperable. If the second set of data meets the acceptance criteria, the cause of the initial deviation shall be analyzed and the results documented in the record of tests (see ISTC-9120).

Impracticality of Compliance

Relief is being requested from measuring stroke times, establishing reference values, comparing stroke times to acceptance criteria / limiting values, and taking corrective action related to stroke time acceptance criteria / limiting values for the Reactor Vessel Head Vent throttle valves. In addition, fail safe testing of these valves will be performed at the same time and frequency as the proposed alternative exercise testing.

These valves are totally enclosed [seal welded bonnet], one-inch Target Rock solenoid valves, with thumb wheel actuated controllers that permit remote positioning of the valves. Valve opening and closing speed, and consequently valve opening and closing stroke time, is controlled by the rate at which the thumbwheel controller is moved and is not representative of valve condition.

Burden Caused by Compliance

Significant system modifications, such as alteration of the valve's control circuit to provide a separate handswitch to permit instantaneous valve operation, would be required solely to allow for the performance of valve stroke time testing.

Proposed Alternative and Basis for Use

Proposed Alternative

TVA proposes to utilize an enhanced maintenance program based on the following attributes:

A. Periodic replacement of critical valve parts [i.e., the linear voltage differential transformer (LVDT) that provides valve position indication feedback, the coil that operates the valve, and the valve's electrical terminal board] in accordance with TVA's environmental qualification binder for the valve. The current schedule for valve part replacement is every 126 months for the LVDT, every 294 months for the coil, and every 432 months for the valve terminal board.

B. Calibration of the valve's position control system each refueling outage. This calibration involves utilizing the valve controller to position the valve at various positions and utilizing the LVDT to determine the valve stem position. These are compared to ensure valve operation is as expected.

In addition to the enhanced maintenance program, tests will be conducted as follows to provide positive verification of the valve's ability to fulfill its specific function:

A. Full stroke exercise of each valve will be performed during shutdowns. The test will consist of cycling the valve controller through one complete cycle and verifying (using the valve position indicator operated by the LVDT attached to the valve stem) that the valve cycles through one full cycle in response to the valve controller. This action also simulates loss of power and satisfies the fail safe close test requirement.

B. During refueling outages, in addition to cycling the controller through one complete cycle and using the valve position indicator to verify valve travel, the valve travel will be verified by (a) ensuring no detectable flow is present through the valves with the valves closed, (b) ensuring flow is present when each valve is opened, and (c) ensuring that when each valve is returned to the closed position no detectable flow is present. The presence or absence of flow will be verified by monitoring a change in a process parameter, either the valve tail pipe temperature for an increase/decrease or the pressurizer relief tank for a temperature increase/decrease or level increase/no change. This additional verification which is consistent with ISTC-3520 ensures the valve disk is still attached to the stem and is capable of controlling flow.

Basis for Use

The Reactor Vessel Head Vent valves are throttled open manually by main control room operator action to (1) provide a reactor vessel head vent path; (2) vent non-condensables from the head during an accident to promote natural circulation; and (3) prevent gases from impeding reactor coolant circulation flow through the core. These valves are totally enclosed (seal welded bonnet), one-inch Target Rock solenoid valves with thumbwheel actuated controllers that permit remote positioning of the valves. Valve opening and closing speed, and consequently valve opening and closing stroke time, is controlled by the rate at which the thumbwheel controller is moved, and is not representative of valve condition. Design requirements impose a minimum stroke time limitation on these valves of not faster than 5 seconds. Restricting the stroke time to not less than 5 seconds effectively prohibits stroke timing the valve because the valve is capable of stroking considerably faster than the 5 second limit. Even if the 5 second limit did not exist, stroke timing of the valve using its thumb-wheel actuated controller would result in timing the ability of the operator to turn the thumb-wheel and not the ability of the valve to move.

An enhanced maintenance program of disassembly and inspection of valve internal parts was evaluated. This method was not considered appropriate for the following reasons:

A. Frequent disassembly can lead to distortion of the valve parts caused by the repetitive welding process to reinstall the seal weld. This distortion could cause unacceptable operational seat leakage, binding of internal parts, and other operational problems.

B. The physical appearance of the internal parts does not always provide clear and evident verification of acceptable valve operation.

Based on the information provided above, compliance with the Code requirements is impractical and the proposed alternative provides reasonable assurance of the operational readiness of the Reactor Vessel Head Vent valves.

Duration of Proposed Alternative

This request is for the duration of the Unit 2 PST period and for the duration of the first concurrent Unit 1 / Unit 2 IST 120-month Inservice Testing interval (third interval for Unit 1 and first interval for Unit 2).

Precedents

A similar relief request was granted for the Unit 1 second interval (*Watts Bar Nuclear Plant, Unit 1 - Requests for Relief for the Second 10-Year Pump and Valve Inservice Testing Program*, ADAMS Accession Number ML070090504, dated March 9, 2007).

Sequoyah Units 1 and 2 and WBN Units 1 and 2 are very closely related in design. Sequoyah was granted a similar relief request for their third interval (*Sequoyah Nuclear Plant, Units 1 and 2 - Request for Relief from the Requirements of the ASME Code*, ADAMS Accession Number ML061790733, dated July 27, 2006).

IST-RR-4 - Unit 2 Pressurizer Safety Valve Test Before Electric Generation

Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(ii)
Hardship or Unusual Difficulty without Compensating Increase in Level of Quality and Safety

ASME Code Component(s) Affected

Valve ID	Function	Drawing /Coord	Cat	Act/Pass	Class	*Size*	Type	Act
2-RFV-68-563	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	Active	1	1	RVL	SA
2-RFV-68-564	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	Active	1	1	RVL	SA
2-RFV-68-565	PRESSURIZER SAFETY VALVE	2-47W813-1 / A-2	C	Active	1	1	RVL	SA

See the program document contained in Enclosure 1 for additional information for valve category, type, and actuator. Referenced Drawings are not needed for review but are available upon request.

Applicable Code Edition and Addenda

ASME OM Code, 2004 Edition through 2006 Addenda

Applicable Code Requirement

I-7210 Class 1 Safety Valves

Within 6 months before initial reactor criticality, each valve shall have its set-pressure verified. Set-pressure verification shall be determined by pressurizing the system up to the valve set-pressure and opening the valve, or the valve may be tested at or below normal system operating pressure with an assist device.

Reason for Request

Relief is being requested from verifying set-pressure while the valves are installed in the plant using system pressure or reduced system pressure with an assist device. These test methods would require personnel entry into a confined space at high ambient temperatures to install/remove the lift assist device on the PSVs or require plant operators to raise RCS pressure to the overpressure condition necessary to open the PSV to meet ASME OM Code I-7210 with 2 out of 3 PSVs gagged and repeat this evolution three times in succession, once for each PSV. Therefore, these in-situ conditions represent a hardship in performing the test and unusual difficulty without a compensating increase in the level of quality and safety.

Proposed Alternative and Basis for Use

Proposed Alternative

TVA proposes to perform set-pressure testing of the pressurizer safety valves (PSVs) at an approved vendor test facility within 6 months prior to initial reactor criticality.

Basis for Use

There are a number of issues that make testing in the installed configuration a hardship without a compensating increase in the level of quality and safety. The following problems would be encountered:

A. Raising RCS pressure to the overpressure condition necessary to open the valve to meet ASME OM Code I-7210 with 2 out of 3 valves gagged would create an undesirable operating condition. This condition would have to be repeated three times in succession, once for each PSV.

B. While an assist device is available, it is generally used on other valve installations (i.e., the Main Steam Safety Valves) in less restrictive locations. Testing with the assist device necessitates that test personnel are in close proximity to the valves in a confined space (the pressurizer enclosure) with temperatures above 160 °F, which represents a potential safety hazard. These temperatures would increase with the lifting of the valves during testing. Extraction of test personnel should they become incapacitated by injury or illness would be difficult.

C. The rupture pressure of the pressurizer relief tank rupture disk is 88 to 100 psig. It is possible that the amount of discharge that would result from testing the PSVs in-situ could cause the rupture disk to rupture and discharge the contents of the tank into the containment building, resulting in personnel hazards and equipment damage.

D. Instruments, including those on the assist device, used during testing would have to be qualified for the high ambient temperature which is not feasible, thereby potentially reducing the accuracy of testing with the assist device.

E. The accuracy of the testing performed using the assist device is, in general, not as good as that of the test facility.

F. Controlling the RCS pressure to support the in-situ PSV testing would be difficult.

The proposed alternative is essentially the same test method used during the IST interval, which is performed in conjunction with refueling outages where one or more PSVs are either (a) removed, tested at a vendor facility, and reinstalled, or (b) replaced with valve(s) that were pretested at a vendor facility.

Based on the information provided above, compliance with the Code requirements represents a hardship or unusual difficulty without a compensating increase in level of quality and safety. The proposed alternative provides reasonable assurance of the operational readiness of the PSVs.

Duration of Proposed Alternative

This request is for the duration of the Unit 2 Preservice Test period.

Precedents

A similar relief request was granted for Unit 1 (*Watts Bar Unit 1 - Relief from ASME Section XI Regarding Pressurizer Safety Valve Testing*, ADAMS Accession Numbers ML073200567 and ML073200570, dated September 5, 1995).

ENCLOSURE 4
Tennessee Valley Authority
Watts Bar Nuclear Plant, Units 1 and 2
Docket Nos. 50-390, -391

List of Commitments

1. Since the alignment of the interval dates will be effective once Unit 2 commercial operation milestone occurs, TVA will track and document the exact date of commercial operation.

2. Within three months of Unit 2 commercial operation, TVA will provide NRC this exact date of when the combined intervals became effective.