
Duke Energy
Catawba Nuclear Station Units 1 and 2

FOURTH INSPECTION INTERVAL
INSERVICE INSPECTION
PRESSURE TEST PLAN



Revision 0

Plant Location: 4800 Concord Road
York, South Carolina 29745

Commercial Service Date Unit 1: June 29, 1985
Commercial Service Date Unit 2: August 19, 1986

Fourth Interval Start Date: August 19, 2015

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SUMMARY OF REVISION 0 CHANGES

SECTION	DESCRIPTION
All	Prepared for use by Catawba Units 1 and 2 for the 4 th ISI Interval. Updates the pressure testing program to Section XI, 2007 Edition with the 2008 Addenda. Includes both CNS units. Includes listings of all inspection zones and all ISIL4 drawings (ISI Pressure Test Boundary Drawings). Also includes the interval end date changed per PIP C-14-9325.

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1	Applicable Codes and Standards for Inservice Inspection Pressure Testing
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This document constitutes the inservice inspection pressure testing plan and schedules for the fourth inspection interval for Catawba Units 1, & 2. All further references to Catawba in this document are understood to include Catawba Units 1, & 2. All pressure retaining components classified as ISI Class 1, 2, and 3 have been reviewed to determine the applicable inservice inspection pressure test examination requirements per ASME Section XI.

Based on a fourth interval start date of August 19, 2015 for Catawba and the requirements of 10CFR50.55a(g)(4)(ii), inservice inspection pressure testing activities for Catawba shall be performed in accordance with the 2007 Edition of ASME Section XI with the 2008 Addenda, as modified by the Code Cases and Relief Requests included in this Pressure Testing Plan.

When performing system leakage tests in accordance with IWA-5213(a), no holding time is required after attaining test pressure for Class 1 components, a 10-minute holding time after attaining test pressure is required for Class 2 and Class 3 components that are not required to operate during normal operating conditions, and no hold time is required for the remaining Class 2 and Class 3 components provided that the system has been in operation for at least 4 hours for insulated components or 10 minutes for uninsulated components. When performing system leakage tests in accordance with IWA-5213(c), for system pneumatic tests, a 10 min holding time is required after attaining test pressure.

If leakage is detected on any of the Decay Heat Removal Coolers (1A, 2A, 3A, 1B, 2B or 3B) during Pressure Testing and VT-2 examinations, the site ISI Program Owner for Catawba shall be notified of the leakage so that an evaluation can be performed to determine the continued use of Code Case N-706-1 for ISI Database Summary Numbers within Category C-A, Item No. C1.10 and Category C-B, Item No. C2.32.

The following Code Cases apply to the Pressure Testing Program at Catawba:

Case No.	Case Title	Applicability	NRC Conditions for Use of Code Case (as stated in Regulatory Guide 1.147 Revision 17)
N-706-1	Alternative Examination Requirements to Table IWB-2500-1 and Table IWC-2500-1 for PWR Stainless Steel Residual and Regenerative Heat Exchangers	From the 1977 Edition up to and including the 2010 Edition	Unconditional
N-731	Alternative Class 1 System Leakage Test Pressure Requirements	From the 1989 Edition up to and including the 2010 Edition with the 2011 Addenda	Unconditional

2	Inspection Methods and Procedures to be Used for Inservice Inspection Pressure Testing
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VT-2 visual examinations shall be conducted to locate evidence of leakage from pressure retaining components during the conduct of a system pressure test, except for buried components. See Section 12 in this Plan for pressure testing of buried components.

Pressure testing and associated VT-2 visual examinations shall be performed using the latest revision of procedure NDE-68 "VT-2, Visual Examination For Leakage and Boric Acid Corrosion Control".

The following Duke Energy procedures and directives shall be used to control pressure testing inservice inspection activities, Inservice Inspection Pressure Testing Plans, Pressure Test Database Management System, and Inservice Inspection Pressure Test Reports:

Procedure No:	Title:
MP/0/A/7650/088	Controlling Procedure For Systems Pressure Testing For Repair/Replacement of ASME Section XI Duke Class A, B And C Systems And Components
MP/0/A/7650/088 A	Controlling Procedure For Systems Pressure Testing of ISI Applications For ASME Section XI Duke Class A, B And C Systems And Components
PT/1(2)/A/4200/001 T	Containment Penetration Valve Injection Water System Performance Test
AD-DC-ALL-0002	Records Management (Formally NSD-701)
AD-DC-ALL-0001	Document Control (Formally NSD-702)
AD-IT-ALL-0002	Software Quality Assurance (SQA) Program Administration
NDE-68	VT-2, Visual Examination For Leakage and Boric Acid Corrosion Control
ASME Section XI FAM	ASME Section XI Program Functional Area Manual (Appendix J)
PD-EG-ALL-1701	ASME Section XI Program (Formally NSD-300)
AD-EG-ALL-1702	ASME Section XI Inservice Inspection Program Administration
AD-EG-ALL-1703	ASME Section XI Repair and Replacement Program
AD-EG-ALL-1704	Augmented Inservice Inspection Program Administration
ISITE-23	Application of IWC-5221 and IWD-5221 requirements for system leakage testing of Class 2 and 3 Components
ISITE-022	Section 16.0, Position on Boundary Valves When Used to Define the Interface of Pressure Test Zones
ISITE-019	Position Pertaining to Pressure Testing the NW System
PT/1(2)/A/4350/02 A (B)	Diesel Generator Operational Test
PT/1(2)/A/4350/015 A (B)	Diesel Generator Periodic Test

Pressure testing of ISI Class 1 items shall be performed in accordance with the requirements of Articles IWA-5000, IWB-2000, and IWB-5000 of Section XI. ISI Class 1 systems that are required to be pressure tested shall be divided into isolable areas (to the extent practical). These areas represent specific pressure testing zones (hereafter referred to as examination zones).

Examination Categories and Requirements:

The pressure testing requirements for ISI Class 1 items are listed in Table IWB-2500-1, Category B-P of Section XI and include the following:

Category B-P, All Pressure Retaining Components

The ISI Class 1 System Leakage Test (IWB-5220) is conducted at a pressure not less than the pressure corresponding to 100% rated reactor power. The test pressure and temperature shall be attained at a rate in accordance with the heat-up limitations specified for the system.

The ISI Class 1 System Leakage Test (Examination Category B-P, Item Number B15.10) is required to be performed prior to plant startup following each reactor refueling and is performed with all valves in the position required for normal reactor operation startup. The visual examination shall, however, extend to and include the second closed valve at the boundary extremity.

The pressure-retaining boundary during the ISI Class 1 System Leakage Test conducted at or near the end of each inspection interval (Examination Category B-P, Item Number B15.20) shall extend to all ISI Class 1 pressure-retaining components within the system boundary. This test is required only once during a ten-year interval.

The ISI Class 1 System Leakage Test also meets the requirements of Option 1 of PWROG letter OG-09-140 and WCAP-16913-P, Rev.1

<u>Table IWB-2500-1 Item</u>	<u>Component To Be Examined</u>
B15.10	Pressure Retaining Components
B15.20	Pressure Retaining Components

Pressure testing of ISI Class 2 items shall be performed in accordance with the requirements of Articles IWA-5000, IWC-2000, and IWC-5000 of Section XI. ISI Class 2 systems that are required to be pressure tested shall be divided into isolable areas (to the extent practical). These areas represent specific examination zones.

Examination Categories and Requirements:

The pressure testing requirements for ISI Class 2 items are listed in Table IWC-2500-1, Categories C-B and C-H of Section XI and include the following:

Category C-B, Pressure Retaining Nozzle Welds In Vessels

When nozzle-to-shell (nozzle to head or nozzle to nozzle) welds (to be examined by NDE methods) are inaccessible, the telltale hole in the reinforcing plates shall receive a VT-2 visual examination for evidence of leakage while the vessel is undergoing the System Leakage Test as required by Category C-H. The ISI Class 2 leakage test is required once in each inspection period. Referenced in Zone comments NS-001L-B and NS-002L-B.

Table IWC-2500-1 Item

C2.33

Component To Be Examined

Nozzles With Reinforcing Plate in Vessels > 1/2 in. Nominal Thickness - Nozzle-to-Shell (Nozzle to Head or Nozzle to Nozzle) Welds When Inside of Vessel is Inaccessible

Category C-H, All Pressure Retaining Components

The ISI Class 2 System Leakage Test (IWC-5220) is conducted at the system pressure obtained while the system, or portion of the system, is in service performing its normal operating function or at the system pressure developed during a test conducted to verify system operability. The ISI Class 2 leakage test is required once in each inspection period.

Table IWC-2500-1 Item

C7.10

Component To Be Examined

Pressure Retaining Components

5	Description of Inservice Inspection Pressure Testing Plan for ISI Class 3 Items
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Pressure testing of ISI Class 3 items shall be performed in accordance with the requirements of Articles IWA-5000, IWD-2000, and IWD-5000 of Section XI. ISI Class 3 systems that are required to be pressure tested shall be divided into isolable areas (to the extent practical). These areas represent specific examination zones.

Examination Categories and Requirements:

The pressure testing requirements for ISI Class 3 items are listed in Table IWD-2500-1, Category D-B of Section XI and include the following:

The ISI Class 3 System Leakage Test (IWD-5221) is conducted at the system pressure obtained while the system, or portion of the system, is in service performing its normal operating function or at the system pressure developed during a test conducted to verify system operability. The ISI Class 3 leakage test is required once in each inspection period.

<u>IWD-2500-1 Item</u>	<u>Component to be Examined</u>	<u>Comments</u>
D2.10	Pressure Retaining Components	

6	Components Subject to Section XI Pressure Testing
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The components subject to Section XI Pressure Testing requirements are identified on the ISI Pressure Testing Boundary drawings listed in Attachment D. These drawings have been color coded to identify the applicable systems and components as follows:

- Red = ISI Class A Components
- Yellow = ISI Class B Components
- Green = ISI Class C Components
- Blue = Components exempt from pressure testing requirements
- Magenta = Boundary line showing the extremities of pressure testing examination zones
- Black = Non ISI Class components

Unless otherwise noted, systems designated as ISI Class A are equivalent to ASME Class 1, those designated as ISI Class B are equivalent to ASME Class 2, and those designated as ISI Class C are equivalent to ASME Class 3.

All instrumentation taps within the examination boundary shall be examined up to the first isolation valve off the process pipe.

The ISI Pressure Testing Boundary Drawings reside in Fusion located on the Duke Application Environment (DAE). Changes to the examination boundaries will be shown on the latest ISI Pressure Testing Boundary Drawing revision in Fusion.

Section XI requirements for the boundaries of System Pressure Testing are included in IWB-5222, IWC-5222 and IWD-5222 and are reflected on the ISI Pressure Testing Boundary Drawings.

7	Components Exempted or Excluded From Section XI System Pressure Testing
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Components exempted or excluded from Section XI Pressure Testing requirements are listed in IWA-5110, IWC-5222 and IWD-5222. Specific application of these exemptions and exclusions are shown on the ISI Pressure Testing Boundary drawings, which are described in Section 11 of this document and listed in Attachment D. The following are examples of pressure test exemptions and exclusions:

- Non pressure retaining portions of the Reactor Coolant Pumps.
- Open ended portions of ISI Class 2 and 3 discharge piping per IWC-5222(b) and IWD-5222(c), however, this does not apply to repair/replacement activities related to pressure testing.
- ISI Class 2 and ISI Class 3 portions of systems that do not support the system safety function beyond the first normally closed valve (including relief valves or valves capable of automatic closure) per IWC-5222(a) and IWD-5222(a).
- Containment penetrations where the piping and isolation valves perform a containment function and the balance of the piping system is outside the scope of Section XI per IWA-5110(c).
- Systems/components determined to be optionally owner classified as ISI Class 2 or ISI Class 3 per Section XI, IWA-1320(e).
- Containment sump suction piping.

8	Section XI System Pressure Testing Scheduling
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Section XI System Pressure Testing is scheduled in accordance with requirements of the Section XI Tables for Categories B-P, C-H and D-B. Note that the Section XI scheduling requirements in IWB-2411, IWC-2411 and IWD-2411 do not apply to Categories B-P, C-H and D-B.

Section XI System Pressure Testing of ISI Class 1 systems and components shall be completed each refueling outage per Table IWB-2500-1, Category B-P. ISI Class 1 Pressure Testing is scheduled on an outage-by-outage basis because the examinations are required to be completed each refueling outage.

Section XI System Pressure Testing of ISI Class 2 and 3 systems and components shall be completed once each inspection period per Table IWC-2500-1, Category C-H and Table IWD-2500-1, Category D-B. ISI Class 2 and 3 Pressure Testing is scheduled on an Period basis because the examinations are required to be 100 percent complete by the end of the inspection period rather than a minimum/maximum percentage each inspection period. The following Tables provide dates for Interval 4, three Periods as well as planned Refueling Outages for Catawba Units 1 and 2. The abbreviation “EOC” indicates “End Of Cycle”.

Table 8.1: Catawba 1 Interval and Period Dates

Interval 4: August 19, 2015 to December 31, 2024			
	1st Period (3 Years)	2nd Period (4 Years)	3rd Period (4 Years)
	8/19/2015 to 8/18/2018	8/19/2018 to 8/18/2022	8/19/2022 to 12/31/2024
O U T A G E S	Refueling Outage 1 (EOC 22)	Refueling Outage 3 (EOC 24)	Refueling Outage 6 (EOC 27)
	Refueling Outage 2 (EOC 23)	Refueling Outage 4 (EOC 25)	Refueling Outage 7 (EOC 28)
		Refueling Outage 5 (EOC 26)	

Table 8.2: Catawba 2 Interval and Period Dates

Interval 4: August 19, 2015 to November 19, 2025			
	1st Period (3 Years)	2nd Period (4 Years)	3rd Period (3 Years)
	8/19/2015 8/18/2018	8/19/2018 to 10/18/2022	10/19/2022 to 11/19/2025
O U T A G E S	Refueling Outage 1 (EOC 21)	Refueling Outage 3 (EOC 23)	Refueling Outage 6 (EOC 26)
	Refueling Outage 2 (EOC 22)	Refueling Outage 4 (EOC 24)	Refueling Outage 7 (EOC 27)
		Refueling Outage 5 (EOC 25)	

9	Requests for Relief from ASME Code Requirements
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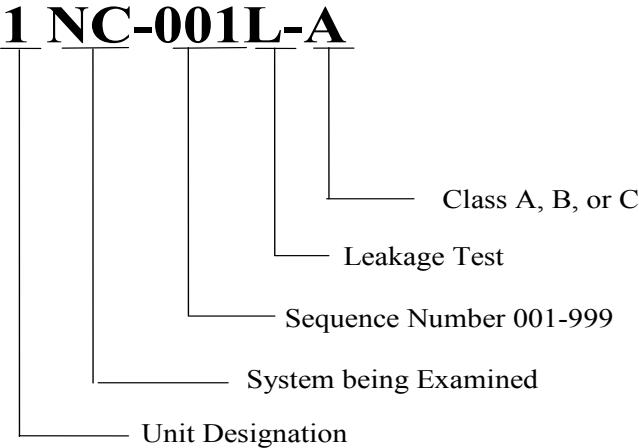
Each Request for Relief from a requirement of the Section XI Code specified in this Plan shall be submitted by the Nuclear Generation Department to the Nuclear Regulatory Commission for approval.

There are no Requests for Relief submitted for use at Catawba.

10	Examination Zone Listing & Associated Boundary Drawings
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The Examination Zones, shown on ISI Pressure Testing Boundary Drawings, represent an area of a system that shall receive a VT-2 visual examination or an alternative to the VT-2 examination. Typically, an Examination Zone terminates at a boundary valve, building interface, or component interface and may include components shown on several boundary drawings. The Examination Zone includes all pressure retaining components within the scope of the boundary valves/extremity interfaces.

All Catawba Examination Zone numbers have the same format. The following example is for an ISI Class 1 System Leakage Test zone:



Pressure Testing Examination Zone Report

A listing of the Pressure Testing zone numbers, examination frequency, and associated inspection information is shown on Attachments A, and B.

11	System, Boundary Drawing, and ISI Classification Listing
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The ISI Pressure Testing Boundary Drawings discussed in Section 6 of this document are based on the Reference Flow Diagrams listed in bottom left hand corner of the Boundary Drawings. During the 4th Interval, "As Built" Flow Diagram revisions will be reviewed to see if the included changes have any impact on the ISI pressure testing boundaries and the Flow Diagram revisions will be incorporated into the Inservice Inspection Pressure Testing Boundary drawings as necessary. Some flow diagram revisions do not affect the pressure testing boundaries; therefore, the pressure testing boundary drawings are not required to be revised. For this reason, there may be a difference between the numeric revision level listed on the Flow Diagram versus the revision level of the Flow Diagram referenced on the ISI Pressure Testing Boundary Drawings. The latest revision of the pressure testing boundary drawing can be retrieved from Fusion located on the DAE.

See Attachment D for a listing of the pressure testing boundary drawings applicable to Catawba 1 & 2.

12	Buried Components
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Unless otherwise specified, pressure testing for ISI classified buried components will be performed in accordance with ASME Section XI, IWA-5244. Catawba will perform an unimpaired flow test per procedures PT/1,2/A/4350/015 A(B) to satisfy the IWA-5244(b)(2) [isolable configuration] requirement and PT/1,2/A/4350/02 A(B) to verify a pressure loss to satisfy the IWA-5244(b)(1) [non-isolable configuration] requirement. The permanent test record must confirm the unimpaired flow test, per procedures PT's listed above, was an acceptable test. In general NDE-68 (VT-2) is not required for the section (buried) of piping where a unimpaired flow test procedure is used per IWA-5244 (b)(procedure is used per IWA-5244 (b)(3).

Attachment A

The following pages are the Catawba Unit 1 – 4th 10-Year Interval Pressure Testing Examination Zone Report generated from the Pressure Test Database Management System (PTDMS).

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Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
1	1BB-001L-B	CN-ISIL4-1565-2.6	Class B	C-H	BB - Steam Generator Blowdown	Periodic	Leakage Test	VT-2	NDE-68	C7.10
		CN-ISIL4-1572-1.4								
		CN-ISIL4-1580-1.0								
		CN-ISIL4-1584-1.0								
2	1CA-001L-B	CN-ISIL4-1584-1.0	Class B	C-H	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	C7.10
		CN-ISIL4-1591-1.1								
		CN-ISIL4-1592-1.1								
		CN-ISIL4-1593-1.0								
		CN-ISIL4-1593-1.1								
		CN-ISIL4-1593-1.7								
3	1CA-001L-C	CN-ISIL4-1592-1.0	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10
		CN-ISIL4-1592-1.1								
		CN-ISIL4-1593-1.2								
4	1CA-002L-C	CN-ISIL4-1592-1.0	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10
		CN-ISIL4-1592-1.1								

Catawba Unit: 1
Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
5	1CA-003L-C	CN-ISIL4-1592-1.0 CN-ISIL4-1592-1.1	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10
6	1CA-004L-C	CN-ISIL4-1573-2.2 CN-ISIL4-1574-2.1 CN-ISIL4-1592-1.0 CN-ISIL4-1592-1.2	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10
7	1CA-005L-C	CN-ISIL4-1573-2.3 CN-ISIL4-1574-2.5 CN-ISIL4-1592-1.0 CN-ISIL4-1592-1.2	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
8	1FW-001L-B	CN-ISIL4-1554-1.2 CN-ISIL4-1554-1.7 CN-ISIL4-1561-1.0 CN-ISIL4-1562-1.2 CN-ISIL4-1563-1.0 CN-ISIL4-1570-1.0 CN-ISIL4-1571-1.0	Class B	C-H	FW - Refueling Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10
9	1FW-002L-B	CN-ISIL4-1571-1.0	Class B	C-H	FW - Refueling Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10
10	1FW-003L-B	CN-ISIL4-1571-1.0	Class B	C-H	FW - Refueling Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
11	1KC-001L-C	CN-ISIL4-1573-1.0 CN-ISIL4-1573-1.1 CN-ISIL4-1573-1.2 CN-ISIL4-1573-1.6 CN-ISIL4-1573-1.9 CN-ISIL4-1573-2.0 CN-ISIL4-1573-2.2	Class C	D-B	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10
12	1KC-002L-C	CN-ISIL4-1573-1.0 CN-ISIL4-1573-1.1 CN-ISIL4-1573-2.1 CN-ISIL4-1573-2.3	Class C	D-B	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10
13	1KC-003L-B	CN-ISIL4-1573-1.4	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
14	1KC-004L-B	CN-ISIL4-1573-1.4	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
15	1KC-005L-B	CN-ISIL4-1573-1.7	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
16	1KC-006L-B	CN-ISIL4-1573-1.7	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
17	1KC-007L-B	CN-ISIL4-1573-1.3	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
18	1KF-001L-C	CN-ISIL4-1570-1.0 CN-ISIL4-1570-1.1	Class C	D-B	KF - Spent Fuel Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10
19	1KF-002L-C	CN-ISIL4-1570-1.0	Class C	D-B	KF - Spent Fuel Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10
20	1NC-001L-A	CN-ISIL4-1553-1.0 CN-ISIL4-1553-1.1 CN-ISIL4-1554-1.0 CN-ISIL4-1554-1.5 CN-ISIL4-1561-1.0 CN-ISIL4-1561-1.1 CN-ISIL4-1562-1.0 CN-ISIL4-1562-1.1 CN-ISIL4-1562-1.2 CN-ISIL4-1562-1.3	Class A	B-P	NC - Reactor Coolant	Outage	Leakage Test	VT-2	NDE-68	B15.10, B15.20
21	1NC-002L-B	CN-ISIL4-1553-1.1	Class B	C-H	NC - Reactor Coolant	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
22	1NC-005L-B	CN-ISIL4-1553-1.0 CN-ISIL4-1572-1.0 CN-ISIL4-1553-1.2	Class B	C-H	NC - Reactor Coolant	Periodic	Leakage Test	VT-2	NDE-68	C7.10
23	1NC-006L-B	CN-ISIL4-1553-1.1 CN-ISIL4-1572-1.0	Class B	C-H	NC - Reactor Coolant	Periodic	Leakage Test	VT-2	NDE-68	C7.10
24	1ND-001L-B	CN-ISIL4-1561-1.0 CN-ISIL4-1561-1.1 CN-ISIL4-1562-1.2 CN-ISIL4-1562-1.3 CN-ISIL4-1563-1.0 CN-ISIL4-1571-1.0 CN-ISIL4-1572-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
25	1ND-002L-B	CN-ISIL4-1561-1.0 CN-ISIL4-1561-1.1 CN-ISIL4-1562-1.2 CN-ISIL4-1562-1.3 CN-ISIL4-1563-1.0 CN-ISIL4-1571-1.0 CN-ISIL4-1572-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10
26	1ND-003L-B	CN-ISIL4-1554-1.0 CN-ISIL4-1561-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10
27	1ND-004L-B	CN-ISIL4-1554-1.7 CN-ISIL4-1561-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10
28	1NI-001L-B	CN-ISIL4-1562-1.1 CN-ISIL4-1572-1.1	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
29	1NI-002L-B	CN-ISIL4-1562-1.1 CN-ISIL4-1562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
30	1NI-003L-B	CN-ISIL4-1562-1.2 CN-ISIL4-1562-1.3	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
31	1NI-004L-B	CN-ISIL4-1562-1.3	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
32	1NI-005L-B	CN-ISIL4-1562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
33	1NI-006L-B	CN-ISIL4-1562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
34	1NI-007L-B	CN-ISIL4-1562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
35	1NI-008L-B	CN-ISIL4-1562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
36	1NI-009L-B	CN-ISIL4-1562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
37	1NI-010L-B	CN-ISIL4-1562-1.0	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
38	1NS-001L-B	CN-ISIL4-1563-1.0	Class B	C-H	NS - Containment Spray	Periodic	Leakage Test	VT-2	NDE-68	C7.10
39	1NS-002L-B	CN-ISIL4-1563-1.0	Class B	C-H	NS - Containment Spray	Periodic	Leakage Test	VT-2	NDE-68	C7.10
40	1NV-001L-B	CN-ISIL4-1554-1.0 CN-ISIL4-1554-1.5 CN-ISIL4-1554-1.8	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
41	1NV-001L-C	CN-ISIL4-1554-1.2 CN-ISIL4-1554-1.4 CN-ISIL4-1554-1.7	Class C	D-B	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	D2.10
42	1NV-002L-B	CN-ISIL4-1554-1.7	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
43	1NV-003L-B	CN-ISIL4-1554-1.7	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
44	1NV-004L-B	CN-ISIL4-1554-1.2	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
45	1NV-005L-B	CN-ISIL4-1554-1.2	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
46	1NV-006L-B	CN-ISIL4-1554-1.0	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
		CN-ISIL4-1554-1.1								
		CN-ISIL4-1554-1.2								
		CN-ISIL4-1554-1.4								
		CN-ISIL4-1554-1.5								
		CN-ISIL4-1554-1.6								
		CN-ISIL4-1554-1.7								
		CN-ISIL4-1556-1.0								
		CN-ISIL4-1562-1.0								
		CN-ISIL4-1562-1.2								
		CN-ISIL4-1567-1.3								
		CN-ISIL4-1567-1.0								
		CN-ISIL4-1567-1.1								
		CN-ISIL4-1572-1.1								
47	1NV-008L-B	CN-ISIL4-1554-1.0	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
		CN-ISIL4-1554-1.2								

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
48	1NV-016L-B	CN-ISIL4-1554-1.0 CN-ISIL4-1554-1.1 CN-ISIL4-1554-1.2 CN-ISIL4-1554-1.3 CN-ISIL4-1554-1.6 CN-ISIL4-1554-1.7 CN-ISIL4-1555-1.1 CN-ISIL4-1572-1.2	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
49	1NV-016L-C	CN-ISIL4-1554-1.1 CN-ISIL4-1554-1.2	Class C	D-B	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
50	1NW-001L-B	CN-ISIL4-1553-1.1 CN-ISIL4-1554-1.0 CN-ISIL4-1562-1.2 CN-ISIL4-1562-1.3 CN-ISIL4-1563-1.0 CN-ISIL4-1565-2.0 CN-ISIL4-1565-2.1 CN-ISIL4-1565-2.4 CN-ISIL4-1565-2.6 CN-ISIL4-1569-1.0 CN-ISIL4-1573-1.3 CN-ISIL4-1574-2.2 CN-ISIL4-1574-2.8 CN-ISIL4-1599-2.2	Class B	C-H	NW - Containment Valve Injection Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10
51	1NW-010L-B	CN-ISIL4-1565-2.0	Class B	C-H	NW - Containment Valve Injection Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
52	1RN-001L-C	CN-ISIL4-1574-1.0	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
53	1RN-002L-C	CN-ISIL4-1574-1.0	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
54	1RN-003L-C	CN-ISIL4-1574-1.2	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
55	1RN-004L-C	CN-ISIL4-1574-1.2	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
56	1RN-005L-C	CN-ISIL4-1569-1.0 CN-ISIL4-1574-1.0 CN-ISIL4-1574-1.1 CN-ISIL4-1574-1.2 CN-ISIL4-1574-1.4 CN-ISIL4-1574-1.5 CN-ISIL4-1574-2.0 CN-ISIL4-1574-2.1 CN-ISIL4-1574-2.4 CN-ISIL4-1574-2.5 CN-ISIL4-2574-2.0 CN-ISIL4-2574-2.1 CN-ISIL4-2574-2.4 CN-ISIL4-2574-2.5	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
57	1RN-007L-C	CN-ISIL4-1574-2.0	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 1
 Catawba Unit 1 4th 10-Year Interval

CNS 4th Interval PT Plan Unit 1

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
58	1RN-009L-C	CN-ISIL4-1574-2.4	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
59	1SA-001L-B	CN-ISIL4-1593-1.1	Class B	C-H	SA - Main Steam to Aux. Equip.	Periodic	Leakage Test	VT-2	NDE-68	C7.10
60	1SA-001L-C	CN-ISIL4-1593-1.1	Class C	D-B	SA - Main Steam to Aux. Equip.	Periodic	Leakage Test	VT-2	NDE-68	D2.10
61	1YC-001L-C	CN-ISIL4-1578-2.0 CN-ISIL4-1578-2.1 CN-ISIL4-1578-2.4	Class C	D-B	YC - Control Area Chilled Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
62	1YC-002L-C	CN-ISIL4-1578-2.2 CN-ISIL4-1578-2.3 CN-ISIL4-1578-2.5	Class C	D-B	YC - Control Area Chilled Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10

End of Report

Attachment B

The following pages are the Catawba Unit 2 – 4th 10-Year Interval Pressure Testing Examination Zone Report generated from the Pressure Test Database Management System (PTDMS).

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Catawba Unit: 2
Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
1	2BB-001L-B	CN-ISIL4-2565-2.6 CN-ISIL4-2572-1.4 CN-ISIL4-2580-1.0 CN-ISIL4-2584-1.0	Class B	C-H	BB - Steam Generator Blowdown	Periodic	Leakage Test	VT-2	NDE-68	C7.10
2	2CA-001L-B	CN-ISIL4-2584-1.0 CN-ISIL4-2591-1.1 CN-ISIL4-2592-1.1 CN-ISIL4-2593-1.0 CN-ISIL4-2593-1.1 CN-ISIL4-2593-1.7	Class B	C-H	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	C7.10
3	2CA-001L-C	CN-ISIL4-2592-1.0 CN-ISIL4-2592-1.1	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10
4	2CA-002L-C	CN-ISIL4-2592-1.0 CN-ISIL4-2592-1.1	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 2
Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
5	2CA-003L-C	CN-ISIL4-2592-1.0 CN-ISIL4-2592-1.1	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10
6	2CA-004L-C	CN-ISIL4-2573-2.2 CN-ISIL4-2574-2.1 CN-ISIL4-2592-1.0 CN-ISIL4-2592-1.2	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10
7	2CA-005L-C	CN-ISIL4-2573-2.3 CN-ISIL4-2574-2.5 CN-ISIL4-2592-1.0 CN-ISIL4-2592-1.2	Class C	D-B	CA - Auxiliary Feedwater	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 2
 Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
8	2FW-001L-B	CN-ISIL4-2554-1.2 CN-ISIL4-2554-1.7 CN-ISIL4-2561-1.0 CN-ISIL4-2562-1.2 CN-ISIL4-2563-1.0 CN-ISIL4-2570-1.0 CN-ISIL4-2571-1.0	Class B	C-H	FW - Refueling Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10
9	2FW-002L-B	CN-ISIL4-2571-1.0	Class B	C-H	FW - Refueling Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10
10	2KC-001L-C	CN-ISIL4-1573-1.6 CN-ISIL4-2573-1.0 CN-ISIL4-2573-1.1 CN-ISIL4-2573-1.2 CN-ISIL4-2573-2.0 CN-ISIL4-2573-2.2	Class C	D-B	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 2
Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
11	2KC-002L-C	CN-ISIL4-2573-1.0 CN-ISIL4-2573-1.1 CN-ISIL4-2573-2.1 CN-ISIL4-2573-2.3	Class C	D-B	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10
12	2KC-003L-B	CN-ISIL4-2573-1.4	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
13	2KC-004L-B	CN-ISIL4-2573-1.4	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
14	2KC-005L-B	CN-ISIL4-2573-1.7	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
15	2KC-006L-B	CN-ISIL4-2573-1.7	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
16	2KC-007L-B	CN-ISIL4-2573-1.3	Class B	C-H	KC - Component Cooling	Periodic	Leakage Test	VT-2	NDE-68	C7.10
17	2KF-001L-C	CN-ISIL4-2570-1.0 CN-ISIL4-2570-1.1	Class C	D-B	KF - Spent Fuel Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10
18	2KF-002L-C	CN-ISIL4-2570-1.0	Class C	D-B	KF - Spent Fuel Cooling	Periodic	Leakage Test	VT-2	NDE-68	D2.10

Catawba Unit: 2
 Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
19	2NC-001L-A	CN-ISIL4-2553-1.0	Class A	B-P	NC - Reactor Coolant	Outage	Leakage Test	VT-2	NDE-68	B15.10, B15.20
		CN-ISIL4-2553-1.1								
		CN-ISIL4-2553-1.2								
		CN-ISIL4-2554-1.0								
		CN-ISIL4-2554-1.5								
		CN-ISIL4-2561-1.0								
		CN-ISIL4-2561-1.1								
		CN-ISIL4-2562-1.0								
		CN-ISIL4-2562-1.1								
		CN-ISIL4-2562-1.2								
		CN-ISIL4-2562-1.3								
20	2NC-002L-B	CN-ISIL4-2553-1.1	Class B	C-H	NC - Reactor Coolant	Periodic	Leakage Test	VT-2	NDE-68	C7.10
21	2NC-005L-B	CN-ISIL4-2553-1.0	Class B	C-H	NC - Reactor Coolant	Periodic	Leakage Test	VT-2	NDE-68	C7.10
		CN-ISIL4-2553-1.2								
		CN-ISIL4-2572-1.0								

Catawba Unit: 2
 Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
22	2NC-006L-B	CN-ISIL4-2553-1.1 CN-ISIL4-2572-1.0	Class B	C-H	NC - Reactor Coolant	Periodic	Leakage Test	VT-2	NDE-68	C7.10
23	2ND-001L-B	CN-ISIL4-2561-1.0 CN-ISIL4-2561-1.1 CN-ISIL4-2562-1.2 CN-ISIL4-2562-1.3 CN-ISIL4-2563-1.0 CN-ISIL4-2571-1.0 CN-ISIL4-2572-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 2
 Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
24	2ND-002L-B	CN-ISIL4-2561-1.0 CN-ISIL4-2561-1.1 CN-ISIL4-2562-1.2 CN-ISIL4-2562-1.3 CN-ISIL4-2563-1.0 CN-ISIL4-2571-1.0 CN-ISIL4-2572-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10
25	2ND-003L-B	CN-ISIL4-2554-1.0 CN-ISIL4-2561-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10
26	2ND-004L-B	CN-ISIL4-2554-1.7 CN-ISIL4-2561-1.0	Class B	C-H	ND - Residual Heat Removal	Periodic	Leakage Test	VT-2	NDE-68	C7.10
27	2NI-001L-B	CN-ISIL4-2562-1.1 CN-ISIL4-2572-1.1	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 2
Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
28	2NI-002L-B	CN-ISIL4-2562-1.1 CN-ISIL4-2562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
29	2NI-003L-B	CN-ISIL4-2562-1.2 CN-ISIL4-2562-1.3	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
30	2NI-004L-B	CN-ISIL4-2562-1.3	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
31	2NI-005L-B	CN-ISIL4-2562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
32	2NI-006L-B	CN-ISIL4-2562-1.2 CN-ISIL4-2572-1.1	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
33	2NI-007L-B	CN-ISIL4-2562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
34	2NI-008L-B	CN-ISIL4-2562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
35	2NI-009L-B	CN-ISIL4-2562-1.2	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 2
Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
36	2NI-010L-B	CN-ISIL4-2562-1.0	Class B	C-H	NI - Safety Injection	Periodic	Leakage Test	VT-2	NDE-68	C7.10
37	2NS-001L-B	CN-ISIL4-2563-1.0	Class B	C-H	NS - Containment Spray	Periodic	Leakage Test	VT-2	NDE-68	C7.10
38	2NS-002L-B	CN-ISIL4-2563-1.0	Class B	C-H	NS - Containment Spray	Periodic	Leakage Test	VT-2	NDE-68	C7.10
39	2NV-001L-B	CN-ISIL4-2554-1.0 CN-ISIL4-2554-1.5 CN-ISIL4-2554-1.8	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
40	2NV-001L-C	CN-ISIL4-1554-1.4 CN-ISIL4-2554-1.2 CN-ISIL4-2554-1.4 CN-ISIL4-2554-1.7	Class C	D-B	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	D2.10
41	2NV-002L-B	CN-ISIL4-2554-1.7	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
42	2NV-003L-B	CN-ISIL4-2554-1.7	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 2
 Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
43	2NV-004L-B	CN-ISIL4-2554-1.2	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
44	2NV-005L-B	CN-ISIL4-2554-1.2	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
45	2NV-006L-B	CN-ISIL4-1554-1.4 CN-ISIL4-1556-1.0 CN-ISIL4-2554-1.0 CN-ISIL4-2554-1.1 CN-ISIL4-2554-1.2 CN-ISIL4-2554-1.5 CN-ISIL4-2554-1.6 CN-ISIL4-2554-1.7 CN-ISIL4-2562-1.0 CN-ISIL4-2562-1.2	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
46	2NV-008L-B	CN-ISIL4-2554-1.0 CN-ISIL4-2554-1.2	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 2
 Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
47	2NV-016L-B	CN-ISIL4-2554-1.0	Class B	C-H	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	C7.10
		CN-ISIL4-2554-1.1								
		CN-ISIL4-2554-1.2								
		CN-ISIL4-2554-1.3								
		CN-ISIL4-2554-1.6								
		CN-ISIL4-2554-1.7								
		CN-ISIL4-2555-1.1								
		CN-ISIL4-2572-1.2								
48	2NV-016L-C	CN-ISIL4-2554-1.1	Class C	D-B	NV - Chemical & Volume Control	Periodic	Leakage Test	VT-2	NDE-68	D2.10
		CN-ISIL4-2554-1.2								

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No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
49	2NW-001L-B	CN-ISIL4-1599-2.1 CN-ISIL4-2553-1.1 CN-ISIL4-2554-1.0 CN-ISIL4-2562-1.2 CN-ISIL4-2562-1.3 CN-ISIL4-2563-1.0 CN-ISIL4-2565-2.0 CN-ISIL4-2565-2.1 CN-ISIL4-2565-2.4 CN-ISIL4-2565-2.6 CN-ISIL4-2569-1.0 CN-ISIL4-2573-1.3 CN-ISIL4-2574-2.2 CN-ISIL4-2574-2.7	Class B	C-H	NW - Containment Valve Injection Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10
50	2NW-010L-B	CN-ISIL4-2565-2.0	Class B	C-H	NW - Containment Valve Injection Water	Periodic	Leakage Test	VT-2	NDE-68	C7.10

Catawba Unit: 2
 Unit 2 CNS 4th 10 Year Interval

CNS 4th Interval PT Plan Unit 2

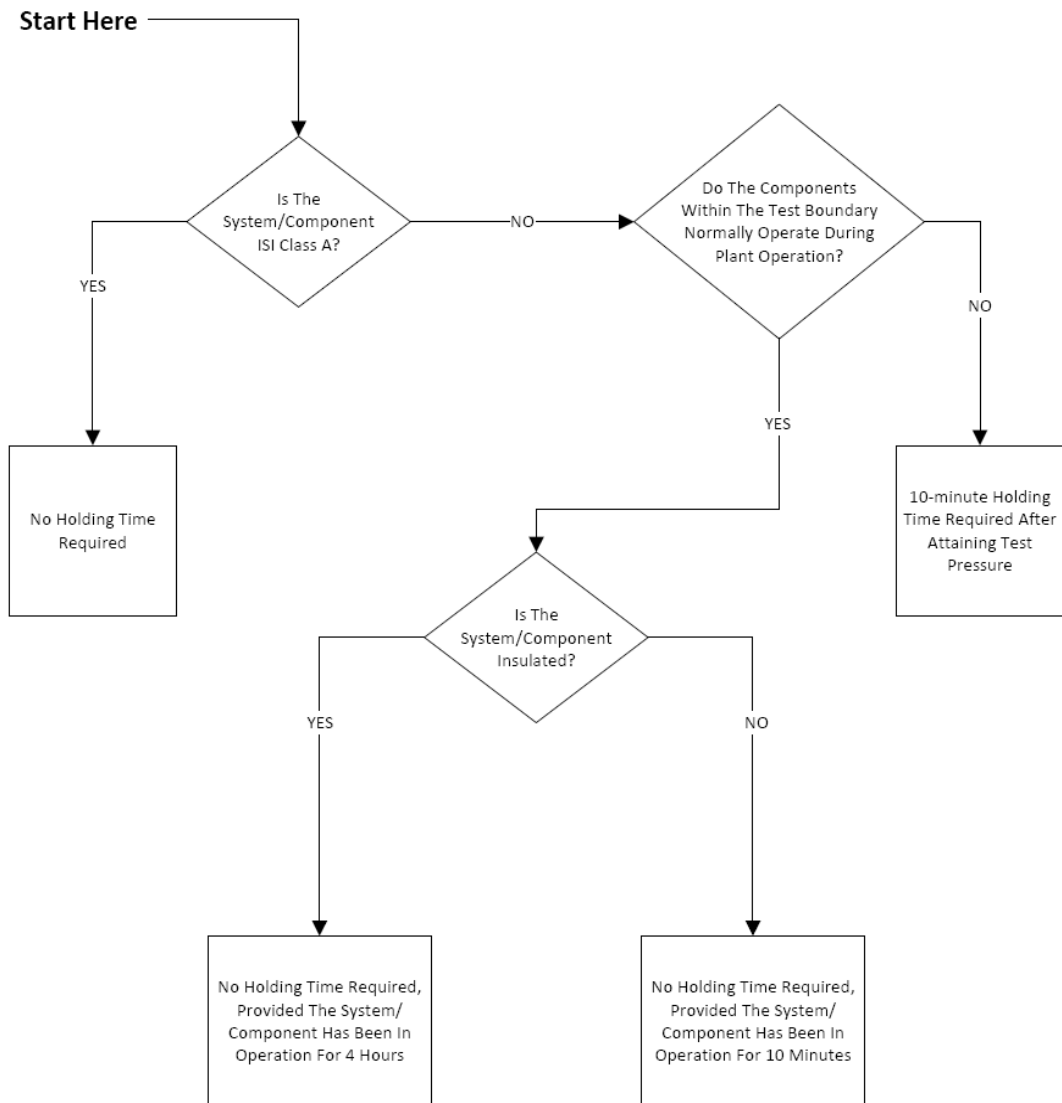
No	Zone Description	Boundary Drawings	Class	Cat	System	Freq	Required Test	Req Exam	Req Proc	Item Num
51	2RN-001L-C	CN-ISIL4-2569-1.0 CN-ISIL4-2574-2.0 CN-ISIL4-2574-2.1	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
52	2RN-003L-C	CN-ISIL4-1574-1.5 CN-ISIL4-2574-2.1	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
53	2RN-004L-C	CN-ISIL4-2574-2.4	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
54	2RN-006L-C	CN-ISIL4-2574-2.5	Class C	D-B	RN - Nuclear Service Water	Periodic	Leakage Test	VT-2	NDE-68	D2.10
55	2SA-001L-B	CN-ISIL4-2593-1.1	Class B	C-H	SA - Main Steam to Aux. Equip.	Periodic	Leakage Test	VT-2	NDE-68	C7.10
56	2SA-001L-C	CN-ISIL4-2593-1.1	Class B	C-H	SA - Main Steam to Aux. Equip.	Periodic	Leakage Test	VT-2	NDE-68	C7.10
			Class C	D-B						D2.10

End of Report

Attachment C

The following Flow Chart is for determining the required hold time prior to the VT-2 Visual Examination. ISITE -23 forms for Catawba are under preparation . Once complete ISITE-23 forms can be found in EDM Fusion (DCRM).

Flow Chart For Determining Hold Times For ISI Class A, B, & C Pressure Testing [IWA-5213]



(See also ISITE-23 and specific ISITE-23 Zone forms for specific zone information.)

Attachment D

The following table is a list of the Catawba Pressure Test Boundary Drawings which was developed from system flow diagrams that contain ASME Section XI Class 1, 2, or 3 components. Each drawing has been reviewed for applicable system pressure testing requirements. In addition to the ISI class, the listing contains those flow diagrams that are exempted from pressure testing requirements for Catawba.

System	Boundary Drawing	Class A	Class B	Class C
Ice Condenser Refrigeration (NF)	CN-ISIL4-1558-2.0		X	
Containment Hydrogen Sample & Purge (VY)	CN-ISIL4-1556-2.0		X	
Residual Heat Removal (ND)	CN-ISIL4-1561-1.0	X	X	
Reactor Coolant (NC)	CN-ISIL4-1553-1.0	X	X	
Reactor Coolant (NC)	CN-ISIL4-1553-1.1	X	X	
Reactor Coolant (NC)	CN-ISIL4-1553-1.2		X	
Reactor Coolant (NC)	CN-ISIL4-1553-1.3		X	
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.0	X	X	
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.1		X	X
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.2		X	X
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.3		X	X
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.4		X	X
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.5	X	X	
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.6		X	X
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.7		X	X
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.8		X	
Boron Thermal Regeneration (NR)	CN-ISIL4-1555-1.1		X	
Boron Recycle (NB)	CN-ISIL4-1556-1.0		X	X
Boron Recycle (NB)	CN-ISIL4-1556-1.2			X
Boron Recycle (NB)	CN-ISIL4-1556-1.3			X
Boron Recycle (NB)	CN-ISIL4-1556-1.4			X
Boron Recycle (NB)	CN-ISIL4-1556-1.6			X
Boron Recycle (NB)	CN-ISIL4-1556-2.0		X	
Containment Air Return & Hydrogen Skimmer (VX)	CN-ISIL4-1557-1.0		X	

Residual Heat Removal (ND)	CN-ISIL4-1561-1.1	X	X	
Safety Injection (NI)	CN-ISIL4-1562-1.0	X	X	
Safety Injection (NI)	CN-ISIL4-1562-1.1	X	X	
Safety Injection (NI)	CN-ISIL4-1562-1.2	X	X	
Safety Injection (NI)	CN-ISIL4-1562-1.3	X	X	
Safety Injection (NI)	CN-ISIL4-1562-1.4		X	
Containment Spray (NS)	CN-ISIL4-1563-1.0		X	
Annulus Ventilation (VE)	CN-ISIL4-1564-1.0			X
Liquid Radwaste (WL)	CN-ISIL4-1565-1.1			X
Liquid Radwaste (WL)	CN-ISIL4-1565-1.4			X
Liquid Radwaste (WL)	CN-ISIL4-1565-1.5			X
Liquid Radwaste (WL)	CN-ISIL4-1565-2.0		X	X
Liquid Radwaste (WL)	CN-ISIL4-1565-2.1		X	
Liquid Radwaste (WL)	CN-ISIL4-1565-2.2			X
Liquid Radwaste (WL)	CN-ISIL4-1565-2.4		X	
Liquid Radwaste (WL)	CN-ISIL4-1565-2.6		X	
Waste Gas (WG)	CN-ISIL4-1567-1.0			X
Waste Gas (WG)	CN-ISIL4-1567-1.1			X
Waste Gas (WG)	CN-ISIL4-1567-1.2			X
Waste Gas (WG)	CN-ISIL4-1567-1.3		X	X
Waste Gas (WG)	CN-ISIL4-1567-1.4			X
Equipment Decontamination (WE)	CN-ISIL4-1568-1.0		X	X
Containment Valve Injection Water (NW)	CN-ISIL4-1569-1.0		X	X
Spent Fuel Cooling (KF)	CN-ISIL4-1570-1.0		X	X
Spent Fuel Cooling (KF)	CN-ISIL4-1570-1.1			X
Refueling Water (FW)	CN-ISIL4-1571-1.0		X	
Nuclear Sampling (NM)	CN-ISIL4-1572-1.0		X	
Nuclear Sampling (NM)	CN-ISIL4-1572-1.1		X	
Nuclear Sampling (NM)	CN-ISIL4-1572-1.2		X	
Nuclear Sampling (NM)	CN-ISIL4-1572-1.4		X	
Component Cooling (KC)	CN-1SIL4-1573-1.0			X
Component Cooling (KC)	CN-1SIL4-1573-1.1			X
Component Cooling (KC)	CN-1SIL4-1573-1.2			X
Component Cooling (KC)	CN-1SIL4-1573-1.3		X	X

Component Cooling (KC)	CN-1SIL4-1573-1.4		X	X
Component Cooling (KC)	CN-1SIL4-1573-1.5		X	X
Component Cooling (KC)	CN-1SIL4-1573-1.6			X
Component Cooling (KC)	CN-1SIL4-1573-1.7		X	X
Component Cooling (KC)	CN-1SIL4-1573-1.9			X
Component Cooling (KC)	CN-1SIL4-1573-2.0			X
Component Cooling (KC)	CN-1SIL4-1573-2.1			X
Component Cooling (KC)	CN-1SIL4-1573-2.2			X
Component Cooling (KC)	CN-1SIL4-1573-2.3			X
Nuclear Service Water (RN)	CN-1SIL4-1574-1.0			X
Nuclear Service Water (RN)	CN-1SIL4-1574-1.1			X
Nuclear Service Water (RN)	CN-1SIL4-1574-1.2			X
Nuclear Service Water (RN)	CN-1SIL4-1574-1.4			X
Nuclear Service Water (RN)	CN-1SIL4-1574-1.5			X
Nuclear Service Water (RN)	CN-1SIL4-1574-2.0			X
Nuclear Service Water (RN)	CN-1SIL4-1574-2.1			X
Nuclear Service Water (RN)	CN-1SIL4-1574-2.2		X	
Nuclear Service Water (RN)	CN-1SIL4-1574-2.4			X
Nuclear Service Water (RN)	CN-1SIL4-1574-2.5			X
Nuclear Service Water (RN)	CN-1SIL4-1574-2.8		X	
Containment Purge (VP)	CN-1SIL4-1576-1.0		X	
Auxiliary Building Ventilation (VA)	CN-1SIL4-1577-1.2			X
Fuel Handling Area Ventilation (VF)	CN-1SIL4-1577-2.0			X
Control Room Area Ventilation (VC)	CN-1SIL4-1578-1.0			X
Control Area Chilled Water (YC)	CN-1SIL4-1578-2.0			X
Control Area Chilled Water (YC)	CN-1SIL4-1578-2.1			X
Control Area Chilled Water (YC)	CN-1SIL4-1578-2.2			X
Control Area Chilled Water (YC)	CN-1SIL4-1578-2.3			X
Control Area Chilled Water (YC)	CN-1SIL4-1578-2.4			X
Control Area Chilled Water (YC)	CN-1SIL4-1578-2.5			X
Steam Generator Blowdown (BB)	CN-1SIL4-1580-1.0		X	
Groundwater Drainage (WZ)	CN-1SIL4-1581-1.0			X
Steam Generator Wet Layup Recirc. (BW)	CN-1SIL4-1584-1.0		X	
Containment Air Release & Addition (VQ)	CN-1SIL4-1585-1.0		X	

Feed water (CF)	CN-ISIL4-1591-1.1		X	
Auxiliary Feed water (CA)	CN-ISIL4-1592-1.0			X
Auxiliary Feed water (CA)	CN-ISIL4-1592-1.1		X	X
Auxiliary Feedwater (CA)	CN-ISIL4-1592-1.2			X
Main Steam (SM)	CN-ISIL4-1593-1.0		X	
Main Steam to Aux. Equip. (SA)	CN-ISIL4-1593-1.1		X	X
Steam Supply to F.D.W.P. Turbine (SP) F.D.W.P. Turbine Exhaust (TE)	CN-ISIL4-1593-1.2			X
Main Steam (SM)	CN-ISIL4-1593-1.7		X	
Main Steam (SM)	CN-ISIL4-1593-1.8			X
Interior Fire Protection (RF)	CN-ISIL4-1599-2.1		X	
Interior Fire Protection (RF)	CN-ISIL4-1599-2.2		X	
Makeup Demineralized Water (YM)	CN-ISIL4-1601-3.1		X	
Instrument Air (VI)	CN-ISIL4-1605-1.14		X	
Instrument Air (VI)	CN-ISIL4-1605-1.4		X	
Station Air (VS)	CN-ISIL4-1605-2.1		X	
Breathing Air (VB)	CN-ISIL4-1605-3.2		X	
Diesel Generator Cooling Water (KD)	CN-ISIL4-1609-1.0			X
Diesel Generator Lube Oil (LD)	CN-ISIL4-1609-2.0			X
Diesel Generator Lube Oil (LD)	CN-ISIL4-1609-2.2			X
Diesel Generator Fuel Oil (FD)	CN-ISIL4-1609-3.0			X
Diesel Generator Fuel Oil (FD)	CN-ISIL4-1609-3.1			X
Diesel Generator Starting Air (VG)	CN-ISIL4-1609-4.0			X
Diesel Generator Starting Air (VG)	CN-ISIL4-1609-4.1			X
Diesel Generator Air Intake & Exhaust (VN)	CN-ISIL4-1609-5.0			X
Diesel Generator Crankcase Vacuum (ZD)	CN-ISIL4-1609-6.0			X
Diesel Generator Sump Pump (WN)	CN-ISIL4-1609-7.0			X
Spent Fuel Cooling (KF)	CN-ISIL4-2570-1.0			X
Component Cooling System (KC)	CN-ISIL4-2573-1.1			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.0			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.1			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.4			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.5			X

Unit 2 System and Drawing references.

System	Flow Diagram	Class A	Class B	Class C
Chemical & Volume Control (NV)	CN-ISIL4-1554-1.4		X	X
Boron Recycle (NB)	CN-ISIL4-1556-1.0		X	X
Component Cooling (KC)	CN-ISIL4-1573-1.6			X
Reactor Coolant (NC)	CN-ISIL4-2553-1.0	X	X	
Reactor Coolant (NC)	CN-ISIL4-2553-1.1	X	X	X
Reactor Coolant (NC)	CN-ISIL4-2553-1.2		X	
Reactor Coolant (NC)	CN-ISIL4-2553-1.3		X	
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.0	X	X	
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.1		X	X
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.2		X	X
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.3		X	X
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.4			X
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.5	X	X	
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.6		X	X
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.7		X	X
Chemical & Volume Control (NV)	CN-ISIL4-2554-1.8		X	
Boron Thermal Regeneration (NR)	CN-ISIL4-2555-1.1		X	
Boron Recycle (NB)	CN-ISIL4-2556-2.0		X	
Containment Air Return & Hydrogen Skimmer (VX)	CN-ISIL4-2557-1.0		X	
Ice Condenser Refrigeration (NF)	CN-ISIL4-2558-2.0		X	
Containment Hydrogen Sample & Purge (VY)	CN-ISIL4-2559-1.0		X	

System	Flow Diagram	Class A	Class B	Class C
Residual Heat Removal (ND)	CN-ISIL4-2561-1.0	X	X	
Residual Heat Removal (ND)	CN-ISIL4-2561-1.1	X	X	
Safety Injection (NI)	CN-ISIL4-2562-1.0	X	X	
Safety Injection (NI)	CN-ISIL4-2562-1.1	X	X	
Safety Injection (NI)	CN-ISIL4-2562-1.2	X	X	
Safety Injection (NI)	CN-ISIL4-2562-1.3	X	X	
Safety Injection (NI)	CN-ISIL4-2562-1.4		X	
Containment Spray (NS)	CN-ISIL4-2563-1.0		X	
Annulus Ventilation (VE)	CN-ISIL4-2564-1.0			X
Liquid Radwaste (WL)	CN-ISIL4-2565-2.0		X	X
Liquid Radwaste (WL)	CN-ISIL4-2565-2.1		X	
Liquid Radwaste (WL)	CN-ISIL4-2565-2.2			X
Liquid Radwaste (WL)	CN-ISIL4-2565-2.4		X	
Liquid Radwaste (WL)	CN-ISIL4-2565-2.6		X	
Equipment Decontamination (WE)	CN-ISIL4-2568-1.0		X	X
Containment Valve Injection Water (NW)	CN-ISIL4-2569-1.0		X	X
Spent Fuel Cooling (KF)	CN-ISIL4-2570-1.0		X	X
Spent Fuel Cooling (KF)	CN-ISIL4-2570-1.1			X
Refueling Water (FW)	CN-ISIL4-2571-1.0		X	
Nuclear Sampling (NM)	CN-ISIL4-2572-1.0		X	
Nuclear Sampling (NM)	CN-ISIL4-2572-1.1		X	
Nuclear Sampling (NM)	CN-ISIL4-2572-1.2		X	
Nuclear Sampling (NM)	CN-ISIL4-2572-1.4		X	
Component Cooling (KC)	CN-ISIL4-2573-1.0			X
Component Cooling (KC)	CN-ISIL4-2573-1.1			X
Component Cooling (KC)	CN-ISIL4-2573-1.2			X
Component Cooling (KC)	CN-ISIL4-2573-1.3		X	X
Component Cooling (KC)	CN-ISIL4-2573-1.4		X	X
Component Cooling (KC)	CN-ISIL4-2573-1.5		X	X
Component Cooling (KC)	CN-ISIL4-2573-1.7		X	X
Component Cooling (KC)	CN-ISIL4-2573-2.0			X
Component Cooling (KC)	CN-ISIL4-2573-2.1			X
Component Cooling (KC)	CN-ISIL4-2573-2.2			X
Component Cooling (KC)	CN-ISIL4-2573-2.3			X

System	Flow Diagram	Class A	Class B	Class C
Nuclear Service Water (RN)	CN-ISIL4-2574-2.0			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.1			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.2		X	
Nuclear Service Water (RN)	CN-ISIL4-2574-2.4			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.5			X
Nuclear Service Water (RN)	CN-ISIL4-2574-2.7		X	
Containment Pure (VP)	CN-ISIL4-2576-1.0		X	
Fuel Handling Area Ventilation (VF)	CN-ISIL4-2577-2.0			X
Steam Generator Blowdown (BB)	CN-ISIL4-2580-1.0		X	
Steam Generator Wet Layup Recirc.(BW)	CN-ISIL4-2584-1.0		X	
Containment Air Release & Addition (VQ)	CN-ISIL4-2585-1.0		X	
Feedwater (CF)	CN-ISIL4-2591-1.1		X	X
Auxiliary Feed water (CA)	CN-ISIL4-2592-1.0			X
Auxiliary Feedwater (CA)	CN-ISIL4-2592-1.1		X	X
Auxiliary Feedwater (CA)	CN-ISIL4-2592-1.2			X
Main Steam (SM)	CN-ISIL4-2593-1.0		X	
Main Steam to Aux. Equip. (SA)	CN-ISIL4-2593-1.1		X	X
Steam Supply to F.D.W.P. Turbine (SP) F.D.W.P. Turbine Exhaust (TE)	CN-ISIL4-2593-1.2			X
Main Steam (SM)	CN-ISIL4-2593-1.7		X	
Main Steam (SM)	CN-ISIL4-2593-1.8			X
Instrument Air (VI)	CN-ISIL4-2605-1.5		X	X
Breathing Air (VB)	CN-ISIL4-2605-3.2		X	
Diesel Generator Cooling Water (KD)	CN-ISIL4-2609-1.0			X
Diesel Generator Lube Oil (LD)	CN-ISIL4-2609-2.0			X
Diesel Generator Lube Oil (LD)	CN-ISIL4-2609-2.2			X
Diesel Generator Fuel Oil (FD)	CN-ISIL4-2609-3.0			X
Diesel Generator Fuel Oil (FD)	CN-ISIL4-2609-3.1			X
Diesel Generator Starting Air (VG)	CN-ISIL4-2609-4.0			X
Diesel Generator Starting Air (VG)	CN-ISIL4-2609-4.1			X
Diesel Generator Air Intake & Exhaust (VN)	CN-ISIL4-2609-5.0			X
Diesel Generator Crankcase Vacuum (ZD)	CN-ISIL4-2609-6.0			X
Diesel Generator Sump Pump (WN)	CN-ISIL4-2609-7.0			X