2.7 Support Systems

2.7.1 Component Cooling Water System

1.0 Description

The component cooling water system (CCWS) is a safety related closed loop cooling water system comprising four divisions that remove heat generated from safety related and non-safety related components connected to the CCWS. Heat transferred from these components to the CCWS is rejected to the essential service water system (ESWS) via the component cooling water heat exchangers.

The CCWS provides the following significant safety related functions:

- The CCWS provides the transport of the heat from the safety injection system (SIS) and residual heat removal system (RHRS) to the ESWS.
- The CCWS provides the cooling of the thermal barrier of the reactor coolant pump (RCP) seals during all plant operating modes when the RCPs are running.
- The CCWS provides heat removal from the safety chilled water system (SCWS) divisions 2 and 3.
- The CCWS provides the removal of the decay heat from the fuel pool cooling water heat exchanger and the spent fuel pool cooling system pump room ventilation coolers.
- The CCWS containment isolation valves close upon receipt of a containment isolation signal.

The CCWS provides the following significant non-safety-related functions:

- The non-safety-related dedicated CCWS train removes heat from the severe accident heat removal system (SAHRS).

2.0 Arrangement

2.1 The functional arrangement of the CCWS is as shown in Figure 2.7.1-1—Component Cooling Water System Functional Arrangement.

2.2 The location of CCWS equipment is as listed in Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design.

2.3 Physical separation exists between divisions of the CCWS.

3.0 Mechanical Design Features

3.1 Equipment listed in Table 2.7.1-1 as ASME Code Section III is designed, welded, and hydrostatically tested in accordance with ASME Code Section III.

3.2 Check valves will function as listed in Table 2.7.1-1.

3.3 Deleted.

3.4 Equipment identified as Seismic Category I in Table 2.7.1-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.7.1-1.

3.5 Deleted.

3.6 Deleted.

3.7 Deleted.

3.8 Deleted.

3.9 Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are designed in accordance with ASME Code Section III requirements.

3.10 Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are installed in accordance with an ASME Code Section III Design Report.

3.11 Pressure boundary welds in portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are in accordance with ASME Code Section III.

3.12 Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 retain their pressure boundary integrity at their design pressure.

3.13 Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are installed in accordance with ASME Code Section III requirements.

4.0 I&C Design Features, Displays and Controls

4.1 Displays listed in Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design are retrievable in the main control room (MCR) and the remote shutdown station (RSS) as listed in Table 2.7.1-2.

4.2 The CCWS equipment controls are provided in the MCR and the RSS as listed in Table 2.7.1-2.

4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.7.1-2 responds to the state requested by a test signal.

4.4 A CCWS low flow condition automatically opens the low head safety injection (LHSI)/residual heat removal (RHR) heat exchanger (HX) inlet valve.

4.5 A surge tank level of MIN3 automatically isolates the associated train common header switchover valves.

4.6 A surge tank level of MIN4 automatically trips the associated CCWS pump.

4.7 A flowrate difference between the supply and return from the Nuclear Auxiliary Building (NAB) and the Radioactive Waste Building (RWB) automatically isolates the non-safety-related branch.

4.8 Loss of one CCWS train initiates an automatic switchover to allow cooling of the common ‘a’ and/or ‘b’ headers.

4.9 Deleted.

5.0 Electrical Power Design Features

5.1 The components designated as Class 1E in Table 2.7.1-2 are powered from the Class 1E division as listed in Table 2.7.1-2 in a normal or alternate feed condition.

5.2 Valves listed in Table 2.7.1-2 fail as-is on loss of power.

6.0 Environmental Qualifications

6.1 Electrical drivers for equipment listed in Table 2.7.1-2 for harsh environment can perform the safety function in Table 2.7.1-1 following exposure to the design basis environments for the time required.

7.0 Equipment and System Performance

7.1 The CCWS heat exchangers as listed in Table 2.7.1-1 have the capacity to transfer the design heat load to the ESWS.

7.2 The pumps listed in Table 2.7.1-1 have sufficient net positive suction head absolute.

7.3 The CCWS delivers water to the LHSI/RHRS heat exchangers at the design flow rate to provide cooling.

7.4 The CCWS delivers water to the RCP thermal barrier seals at the required flow.

7.5 The CCWS delivers water to Divisions 2 and 3 of the SCWS chiller heat exchangers at the required flow to confirm availability of the SCWS system during design basis events.

7.6 The CCWS delivers water to the spent fuel pool cooling heat exchangers at the required flow to confirm cooling of the spent fuel pool during all plant conditions when spent fuel is in the pool.

7.7 Class 1E valves listed in Table 2.7.1-2 can perform the function listed in Table 2.7.1-1 under system design conditions.

7.8 The CCWS provides for flow testing of CCWS pumps during plant operation.

7.9 Containment isolation valves listed in Table 2.7.1-1 close within the containment isolation response time following initiation of a containment isolation signal.

8.0 System Inspections, Tests, Analyses, and Acceptance Criteria

Table 2.7.1-3 lists the CCWS ITAAC.

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
Component Cooling Water Pump	KAA10AP001	Safeguards Building Division 1	Yes	Run	I
Component Cooling Water Pump	KAA20AP001	Safeguards Building Division 2	Yes	Run	I
Component Cooling Water Pump	KAA30AP001	Safeguards Building Division 3	Yes	Run	I
Component Cooling Water Pump	KAA40AP001	Safeguards Building Division 4	Yes	Run	I
Heat Exchanger	KAA10AC001	Safeguards Building Division 1	Yes	Heat Transfer Device	I
Heat Exchanger	KAA20AC001	Safeguards Building Division 2	Yes	Heat Transfer Device	I
Heat Exchanger	KAA30AC001	Safeguards Building Division 3	Yes	Heat Transfer Device	I
Heat Exchanger	KAA40AC001	Safeguards Building Division 4	Yes	Heat Transfer Device	I
Surge Tank	KAA10BB001	Safeguards Building Division 1	Yes	Provide the following: 1. Pump NPSH 2. Adequate Surge Volume 3. Makeup Volume for normal leakage	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
Surge Tank	KAA20BB001	Safeguards Building Division 2	Yes	Provide the following: 1. Pump NPSH 2. Adequate Surge Volume 3. Makeup Volume for normal leakage	I
Surge Tank	KAA30BB001	Safeguards Building Division 3	Yes	Provide the following: 1. Pump NPSH 2. Adequate Surge Volume 3. Makeup Volume for normal leakage	I
Surge Tank	KAA40BB001	Safeguards Building Division 4	Yes	Provide the following: 1. Pump NPSH 2. Adequate Surge Volume 3. Makeup Volume for normal leakage	I
CCWS Pump/Heat Exchanger Downstream Check Valve	KAA10AA004	Safeguards Building Division 1	Yes	Prevent Backflow	I
CCWS Pump/Heat Exchanger Downstream Check Valve	KAA20AA004	Safeguards Building Division 2	Yes	Prevent Backflow	I
CCWS Pump/Heat Exchanger Downstream Check Valve	KAA30AA004	Safeguards Building Division 3	Yes	Prevent Backflow	I
CCWS Pump/Heat Exchanger Downstream Check Valve	KAA40AA004	Safeguards Building Division 4	Yes	Prevent Backflow	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
Heat Exchanger Bypass Temperature Control Valve	KAA10AA112	Safeguards Building Division 1	Yes	Temperature control	I
Heat Exchanger Bypass Temperature Control Valve	KAA20AA112	Safeguards Building Division 2	Yes	Temperature control	I
Heat Exchanger Bypass Temperature Control Valve	KAA30AA112	Safeguards Building Division 3	Yes	Temperature control	I
Heat Exchanger Bypass Temperature Control Valve	KAA40AA112	Safeguards Building Division 4	Yes	Temperature control	I
Demineralized Water Makeup Supply To Surge Tank	KAA10AA027	Safeguards Building Division 1	Yes	Open/Close	I
Demineralized Water Makeup Supply To Surge Tank	KAA20AA027	Safeguards Building Division 2	Yes	Open/Close	I
Demineralized Water Makeup Supply To Surge Tank	KAA30AA027	Safeguards Building Division 3	Yes	Open/Close	I
Demineralized Water Makeup Supply To Surge Tank	KAA40AA027	Safeguards Building Division 4	Yes	Open/Close	I
CCWS Common Header 1a Switchover Valve	KAA10AA033	Safeguards Building Division 1	Yes	Close	I
CCWS Common Header 1a Switchover Valve	KAA10AA032	Safeguards Building Division 1	Yes	Close	I
CCWS Common Header 1a Switchover Valve	KAA20AA033	Safeguards Building Division 2	Yes	Close	I
CCWS Common Header 1a Switchover Valve	KAA20AA032	Safeguards Building Division 2	Yes	Close	I
CCWS Common Header 2a Switchover Valve	KAA30AA033	Safeguards Building Division 3	Yes	Close	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
CCWS Common Header 2a Switchover Valve	KAA30AA032	Safeguards Building Division 3	Yes	Close	I
CCWS Common Header 2a Switchover Valve	KAA40AA033	Safeguards Building Division 4	Yes	Close	I
CCWS Common Header 2a Switchover Valve	KAA40AA032	Safeguards Building Division 4	Yes	Close	I
CCWS Common Header 1b Switchover Valve	KAA10AA006	Safeguards Building Division 1	Yes	Close	I
CCWS Common Header 1b Switchover Valve	KAA10AA010	Safeguards Building Division 1	Yes	Close	I
CCWS Common Header 1b Switchover Valve	KAA20AA006	Safeguards Building Division 2	Yes	Close	I
CCWS Common Header 1b Switchover Valve	KAA20AA010	Safeguards Building Division 2	Yes	Close	I
CCWS Common Header 2b Switchover Valve	KAA30AA006	Safeguards Building Division 3	Yes	Close	I
CCWS Common Header 2b Switchover Valve	KAA30AA010	Safeguards Building Division 3	Yes	Close	I
CCWS Common Header 2b Switchover Valve	KAA40AA006	Safeguards Building Division 4	Yes	Close	I
CCWS Common Header 2b Switchover Valve	KAA40AA010	Safeguards Building Division 4	Yes	Close	I
Low Head Safety Injection Heat Exchanger Isolation Valve	KAA12AA005	Safeguards Building Division 1	Yes	Open	I
Low Head Safety Injection Heat Exchanger Isolation Valve	KAA22AA005	Safeguards Building Division 2	Yes	Open	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
Low Head Safety Injection Heat Exchanger Isolation Valve	KAA32AA005	Safeguards Building Division 3	Yes	Open	I
Low Head Safety Injection Heat Exchanger Isolation Valve	KAA42AA005	Safeguards Building Division 4	Yes	Open	I
Low Head Safety Injection Pump Seal Fluid Cooler Isolation Valve	KAA22AA013	Safeguards Building Division 2	Yes	Open	I
Low Head Safety Injection Pump Seal Fluid Cooler Isolation Valve	KAA32AA013	Safeguards Building Division 3	Yes	Open	I
CCWS to Low Head Safety Injection Heat Exchanger Downstream Check Valve	KAA12AA012	Safeguards Building Division 1	Yes	Prevent Backflow	I
CCWS to Low Head Safety Injection Heat Exchanger Downstream Check Valve	KAA22AA012	Safeguards Building Division 2	Yes	Prevent Backflow	I
CCWS to Low Head Safety Injection Heat Exchanger Downstream Check Valve	KAA32AA012	Safeguards Building Division 3	Yes	Prevent Backflow	I
CCWS to Low Head Safety Injection Heat Exchanger Downstream Check Valve	KAA42AA012	Safeguards Building Division 4	Yes	Prevent Backflow	I
CCWS to Low Head Safety Injection Pump Seal Fluid Cooler Downstream Check Valve	KAA22AA014	Safeguards Building Division 2	Yes	Prevent Backflow	I
CCWS to Low Head Safety Injection Pump Seal Fluid Cooler Downstream Check Valve	KAA32AA014	Safeguards Building Division 3	Yes	Prevent Backflow	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
CCWS to Safety Chilled Water Chiller Flow Control Valve	KAA22AA101	Safeguards Building Division 2	Yes	Open/Close	I
CCWS to Safety Chilled Water Chiller Flow Control Valve	KAA32AA101	Safeguards Building Division 3	Yes	Open/Close	I
Common Header 1a to Fuel Pool Cooling Heat Exchanger 1 Downstream Control Valve (motor operated valve (mov))	KAB10AA134	Fuel Building	Yes	Open/Close	I
Common Header 2a Fuel Pool Cooling Heat Exchanger 2 Downstream Control Valve (mov)	KAB20AA134	Fuel Building	Yes	Open/Close	I
Common Header 1b Containment Supply Isolation Valve (mov)	KAB30AA049	Safeguards Building Division 1	Yes	Close (Manually Initiated)	I
Common Header 1b Containment Return Isolation Valve (mov)	KAB30AA051	Reactor Building	Yes	Close (Manually Initiated)	I
Common Header 1b Containment Return Isolation Valve (mov)	KAB30AA052	Safeguards Building Division 1	Yes	Close (Manually Initiated)	I
Common Header 1b RCP Thermal Barriers 1/2 Upstream Containment Isolation Check Valve	KAB30AA050	Reactor Building	Yes	Prevent Backflow	I
Common Header 2b Containment Supply Isolation Valves	KAB30AA053	Safeguards Building Division 4	Yes	Close (Manually Initiated)	I
Common Header 2b Containment Return Isolation Valves	KAB30AA055	Reactor Building	Yes	Close (Manually Initiated)	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
Common Header 2b Containment Return Isolation Valves	KAB30AA056	Safeguards Building Division 4	Yes	Close (Manually Initiated)	I
Common Header 2b Containment Supply Isolation Check Valve	KAB30AA054	Reactor Building	Yes	Close	I
Common Header 1b Containment Supply Isolation Valve (mov)	KAB40AA001	Safeguards Building Division 1	Yes	Close	I
Common Header 1b Containment Return Isolation Valve (mov)	KAB40AA006	Reactor Building	Yes	Close	I
Common Header 1b Containment Return Isolation Valve (mov)	KAB40AA012	Safeguard Building Division 1	Yes	Close	I
Common Header 1b Containment Supply Isolation Check Valve	KAB40AA002	Reactor Building	Yes	Close	I
Common Header 2b Nuclear Auxiliary Building and Radwaste Building Isolation Supply Valve	KAB50AA001	Safeguards Building Division 4	Yes	Close	I
Common Header 2b Nuclear Auxiliary and Radwaste Building Supply Isolation Valve	KAB50AA006	Safeguards Building Division 4	Yes	Close	I
Common Header 2b Nuclear Auxiliary and Radwaste Building Return Isolation Valve	KAB50AA004	Safeguards Building Division 4	Yes	Close	I
Common Header 2b Auxiliary and Waste Building Return Isolation Check Valve	KAB50AA008	Safeguards Building Division 4	Yes	Close	I
Common Header 1b Containment Supply Isolation Valve (mov)	KAB60AA013	Safeguards Building Division 1	Yes	Close	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
Common Header 1b Containment Return Isolation Valve (mov)	KAB60AA018	Reactor Building	Yes	Close	I
Common Header 1b Containment Return Isolation Valve (mov)	KAB60AA019	Safeguards Building Division 1	Yes	Close	I
Common Header 1b CVCS HP Cooler 1 and RCP Coolers 1/2 Containment Supply Isolation Check Valve	KAB60AA014	Reactor Building	Yes	Prevent Backflow	I
Common Header 1b CVCS HP Cooler 1 Downstream Control Valve (mov)	KAB60AA116	Reactor Building	Yes	Open/Close	I
Common Header 2b Containment Supply Isolation Valves	KAB70AA013	Safeguards Building Division 4	Yes	Close	I
Common Header 2b Containment Return Isolation Valves	KAB70AA018	Reactor Building	Yes	Close	I
Common Header 2b Containment Return Isolation Valves	KAB70AA019	Safeguards Building Division 4	Yes	Close	I
Common Header 2b Containment Supply Isolation Check Valve	KAB70AA014	Reactor Building	Yes	Prevent Backflow	I
Common Header 2b CVCS HP Cooler 2 Downstream Control Valve (mov)	KAB70AA116	Reactor Building	Yes	Close	I
CCWS Common Header 1b Nuclear Auxiliary Building Supply Isolation Valve (hydraulic)	KAB80AA015	Safeguards Building Division 1	Yes	Close	I

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
CCWS Common Header 1b Nuclear Auxiliary Building Supply Isolation Valve (hydraulic)	KAB80AA016	Safeguards Building Division 1	Yes	Close	I
CCWS Common Header 1b Nuclear Auxiliary Building Return Isolation Valve (hydraulic)	KAB80AA019	Safeguards Building Division 1	Yes	Close	I
Common Header 1b Nuclear Auxiliary Building Downstream Check Valve	KAB80AA020	Safeguards Building Division 1	Yes	Close	I
Dedicated CCWS Surge Tank Isolation Valve	KAA80AA020	Safeguards Building Division 4	No	Open	N/A
Dedicated CCWS Surge Tank Nitrogen Supply Valve	KAA80AA021	Safeguards Building Division 4	No	Open	N/A
Dedicated CCWS Demin Water Makeup Water Supply Valve	KAA80AA202	Safeguards Building Division 4	No	Open	N/A
Dedicated CCWS Pump	KAA80AP001	Safeguards Building Division 4	No	Run	N/A
Dedicated CCWS Demin Water Makeup Pump	KAA80AP201	Safeguards Building Division 4	No	Run	N/A
Dedicated CCWS Heat Exchanger	KAA80AC001	Safeguards Building Division 4	No	Heat Transfer Device	N/A

Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design (10 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	ASME Code Section III	Function	Seismic Category
Dedicated CCWS Surge Tank	KAA80BB001	Safeguards Building Division 4	No	Provide the following: 1. Pump NPSH 2. Adequate surge volume 3. Makeup volume for normal leakage	N/A
Train 1 Surge Tank Makeup Isolation Valve	KAA10AA141	Safeguards Building Division 1	Yes	Open	I
Train 1 Surge Tank Makeup Isolation Valve	KAA10AA142	Safeguards Building Division 1	Yes	Open	I
Train 2 Surge Tank Makeup Isolation Valve	KAA20AA141	Safeguards Building Division 2	Yes	Open	I
Train 2 Surge Tank Makeup Isolation Valve	KAA20AA142	Safeguards Building Division 2	Yes	Open	I
Train 3 Surge Tank Makeup Isolation Valve	KAA30AA141	Safeguards Building Division 3	Yes	Open	I
Train 3 Surge Tank Makeup Isolation Valve	KAA30AA142	Safeguards Building Division 3	Yes	Open	I
Train 4 Surge Tank Makeup Isolation Valve	KAA40AA141	Safeguards Building Division 4	Yes	Open	I
Train 4 Surge Tank Makeup Isolation Valve	KAA40AA142	Safeguards Building Division 4	Yes	Open	I

1) Equipment tag numbers are provided for information only and are not part of the certified design.

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Component Cooling Water Pump	KAA10AP001	Safeguards Building Division 1	1	Yes	Yes	On-Off	Start-Stop
Component Cooling Water Pump	KAA20AP001	Safeguards Building Division 2	2	Yes	Yes	On-Off	Start-Stop
Component Cooling Water Pump	KAA30AP001	Safeguards Building Division 3	3	Yes	Yes	On-Off	Start-Stop
Component Cooling Water Pump	KAA40AP001	Safeguards Building Division 4	4	Yes	Yes	On-Off	Start-Stop
Train Switchover Valve	KAA10AA006	Safeguards Building Division 1	1	TBD	Yes	Pos	Start-Stop
Train Switchover Valve	KAA10AA010	Safeguards Building Division 1	1	TBD	Yes	Pos	Open-Close
Train Switchover Valve	KAA10AA032	Safeguards Building Division 1	1	TBD	Yes	Pos	Open-Close
Train Switchover Valve	KAA10AA033	Safeguards Building Division 1	1	TBD	Yes	Pos	Open-Close
Train Switchover Valve	KAA20AA006	Safeguards Building Division 2	2	TBD	Yes	Pos	Open-Close
Train Switchover Valve	KAA20AA010	Safeguards Building Division 2	2	TBD	Yes	Pos	Open-Close
Train Switchover Valve	KAA20AA032	Safeguards Building Division 2	2	TBD	Yes	Pos	Open-Close
Train Switchover Valve	KAA20AA033	Safeguards Building Division 2	2	Yes	No	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Train Switchover Valve	KAA30AA006	Safeguards Building Division 3	3	Yes	No	Pos	Open-Close
Train Switchover Valve	KAA30AA010	Safeguards Building Division 3	3	Yes	No	Pos	Open-Close
Train Switchover Valve	KAA30AA032	Safeguards Building Division 3	3	Yes	No	Pos	Open-Close
Train Switchover Valve	KAA30AA033	Safeguards Building Division 3	3	Yes	No	Pos	Open-Close
Train Switchover Valve	KAA40AA006	Safeguards Building Division 4	4	Yes	No	Pos	Open-Close
Train Switchover Valve	KAA40AA010	Safeguards Building Division 4	4	Yes	No	Pos	Open-Close
Train Switchover Valve	KAA40AA032	Safeguards Building Division 4	4	Yes	No	Pos	Open-Close
Train Switchover Valve	KAA40AA033	Safeguards Building Division 4	4	Yes	No	Pos	Open-Close
Heat Exchanger Bypass Valve	KAA10AA112	Safeguards Building	1	Yes	No	Pos	Open-Close
Heat Exchanger Bypass Valve	KAA20AA112	Safeguards Building	2	Yes	No	Pos	Open-Close
Heat Exchanger Bypass Valve	KAA30AA112	Safeguards Building	3	Yes	No	Pos	Open-Close
Heat Exchanger Bypass Valve	KAA40AA112	Safeguards Building	4	Yes	No	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Surge Tank Level	KAA10CL094	Safeguards Building	1	No	No	Level	NA / NA
Surge Tank Level	KAA10CL099	Safeguards Building	1	No	No	Level	NA / NA
Surge Tank Level	KAA20CL094	Safeguards Building	2	No	No	Level	NA / NA
Surge Tank Level	KAA20CL099	Safeguards Building	2	No	No	Level	NA / NA
Surge Tank Level	KAA30CL094	Safeguards Building	3	No	No	Level	NA / NA
Surge Tank Level	KAA30CL099	Safeguards Building	3	No	No	Level	NA / NA
Surge Tank Level	KAA40CL094	Safeguards Building	4	No	No	Level	NA / NA
Surge Tank Level	KAA40CL099	Safeguards Building	4	No	No	Level	NA / NA
LHSI HX Isolation Valve	KAA12AA005	Safeguards Building	1	Yes	Yes	Pos	Open-Close
LHSI HX Isolation Valve	KAA22AA005	Safeguards Building	2	Yes	Yes	Pos	Open-Close
LHSI HX Isolation Valve	KAA32AA005	Safeguards Building	3	Yes	Yes	Pos	Open-Close
LHSI HX Isolation Valve	KAA42AA005	Safeguards Building	4	Yes	Yes	Pos	Open-Close
LHSI Pump Seal Cooler Isolation Valve	KAA22AA013	Safeguards Building	2	Yes	Yes	Pos	Open-Close
LHSI Pump Seal Cooler Isolation Valve	KAA32AA013	Safeguards Building	3	Yes	Yes	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Common Header 2b Auxiliary Building and Waste Building Isolation Valve	KAB50AA001	Safeguards Building	4	No	No	Pos	Open-Close / TBD
Common Header 2b Auxiliary Building and Waste Building Isolation Valve	KAB50AA004	Safeguards Building	4	No	No	Pos	Open-Close
Common Header 2b Auxiliary Building and Waste Building Isolation Valve	KAB50AA006	Safeguards Building	4	No	No	Pos	Open-Close
Common Header 1b Auxiliary Building Isolation Valve	KAB80AA015	Safeguards Building	1	No	No	Pos	Open-Close
Common Header 1b Auxiliary Building Isolation Valve	KAB80AA016	Safeguards Building	1	No	No	Pos	Open-Close
Common Header 1b Auxiliary Building Isolation Valve	KAB80AA019	Safeguards Building	1	No	No	Pos	Open-Close
Common Header 1b Non-Safety Loads Containment Isolation Valve	KAB40AA001	Safeguards Building	1	Yes	Yes	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Common Header 1b Non-Safety Loads Containment Isolation Valve	KAB40AA006	Safeguards Building	1	Yes	Yes	Pos	Open-Close
Common Header 1b Non-Safety Loads Containment Isolation Valve	KAB40AA012	Reactor Building	4	Yes	Yes	Pos	Open-Close
Common Header 1b Safety Related Loads Containment Isolation Valves	KAB60AA013	Safeguards Building	1	Yes	Yes	Pos	Open-Close
Common Header 1b Safety Related Loads Containment Isolation Valves	KAB60AA018	Reactor Building	4	Yes	Yes	Pos	Open-Close
Common Header 1b Safety Related Loads Containment Isolation Valves	KAB60AA019	Safeguards Building	1	Yes	Yes	Pos	Open-Close
Common Header 2b Safety Related Loads Containment Isolation Valves	KAB70AA013	Safeguards Building	4	Yes	Yes	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Common Header 2b Safety Related Loads Containment Isolation Valves	KAB70AA018	Reactor Building	1	Yes	Yes	Pos	Open-Close
Common Header 2b Safety Related Loads Containment Isolation Valve	KAB70AA019	Safeguards Building	4	Yes	Yes	Pos	Open-Close
Common Header 1b RCP Thermal Barriers Containment Isolation Valve	KAB30AA049	Safeguards Building	1	Yes	No	Pos	Open-Close
Common Header 1b RCP Thermal Barriers Containment Isolation Valve	KAB30AA051	Reactor Building	4	Yes	No	Pos	Open-Close
Common Header 1b RCP Thermal Barriers Containment Isolation Valve	KAB30AA052	Safeguards Building	1	Yes	No	Pos	Open-Close
Common Header 2b RCP Thermal Barriers Containment Isolation Valve	KAB30AA053	Safeguards Building	4	Yes	No	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Common Header 2b RCP Thermal Barriers Containment Isolation Valve	KAB30AA055	Reactor Building	1	Yes	No	Pos	Open-Close
Common Header 2b RCP Thermal Barriers Containment Isolation Valve	KAB30AA056	Safeguards Building	4	Yes	No	Pos	Open-Close
Surge Tank Demin. Water Makeup Supply Isolation Valve	KAA10AA027	Safeguards Building	1	No	No	Pos	Open-Close
Surge Tank Demin. Water Makeup Supply Isolation Valve	KAA20AA027	Safeguards Building	2	No	No	Pos	Open-Close
Surge Tank Demin. Water Makeup Supply Isolation Valve	KAA30AA027	Safeguards Building	3	No	No	Pos	Open-Close
Surge Tank Demin. Water Makeup Supply Isolation Valve	KAA40AA027	Safeguards Building	4	No	No	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Common Header 1a Fuel Pool Cooling Heat Exchanger 1 Downstream Control Valve	KAB10AA134	Safeguards Building	1	No	No	NA / NA	NA / NA
Common Header 1a Fuel Pool Cooling Heat Exchanger 2 Downstream Control Valve	KAB20AA134	Safeguards Building	2	No	No	NA / NA	NA / NA
Common Header 1b Safety Related Loads CVCS HP Cooler 1 Downstream Control Valve	KAB60AA116	Reactor Building	1	No	No	Pos	Open-Close
Common Header 2b Safety Related Loads CVCS HP Cooler 2 Downstream Control Valve	KAB70AA116	Reactor Building	4	No	No	Pos	Open-Close
Dedicated CCWS Surge Tank Isolation Valve	KAA80AA020	Safeguards Building	NA	No	No	Pos	Open-Close
Dedicated CCWS Surge Tank Nitrogen Supply Valve	KAA80AA021	Safeguards Building	NA	No	No	Pos	Open-Close

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Dedicated CCWS Demin Water Makeup Water Supply Valve	KAA80AA202	Safeguards Building	NA	No	No	Pos	Open-Close
Dedicated CCWS Pump	KAA80AP001	Safeguards Building	NA	No	No	On-Off / NA	Start-Stop / NA
Dedicated CCWS Demin Water Makeup Pump	KAA80AP201	Safeguards Building	NA	No	No	On-Off / NA	Start-Stop / NA
Safety Chilled Water Chiller CCWS Flow Control Valve	KAA22AA101	Safeguards Building	2	No	No	NA / NA	NA / NA
Safety Chilled Water Chiller CCWS Flow Control Valve	KAA32AA101	Safeguards Building	3	No	No	NA / NA	NA / NA
Operational Chilled Water Temp Control	KAB50AA111	Safeguards Building	NA	No	No	NA / NA	NA / NA
Operational Chilled Water Temp Control	KAB50AA112	Safeguards Building	NA	No	No	NA / NA	NA / NA
Operational Chilled Water Temp Control	KAB50AA113	Safeguards Building	NA	No	No	NA / NA	NA / NA
Coolant Degasification Condenser CCWS Isolation Valve	KAB50AA122	Safeguards Building	NA	No	No	NA / NA	NA / NA

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
Operational Chilled Water Temp Control	KAB80AA101	Safeguards Building	NA	No	No	NA / NA	NA / NA
Operational Chilled Water Temp Control	KAB80AA102	Safeguards Building	NA	No	No	NA / NA	NA / NA
Operational Chilled Water Temp Control	KAB80AA103	Safeguards Building	NA	No	No	NA / NA	NA / NA
Train 1 Radiation Monitor	KAA10CR001	Safeguards Building Division 1	NA	Yes	No	NA / NA	NA / NA
Train 2 Radiation Monitor	KAA20CR001	Safeguards Building Division 2	NA	Yes	No	NA / NA	NA / NA
Train 3 Radiation Monitor	KAA30CR001	Safeguards Building Division 3	NA	Yes	No	NA / NA	NA / NA
Train 4 Radiation Monitor	KAA40CR001	Safeguards Building Division 4	NA	Yes	No	NA / NA	NA / NA
CVCS HP Cooler 1 Inlet Radiation Monitor	KAB60CR001	Reactor Building	NA	Yes	No	NA / NA	NA / NA
CVCS HP Cooler 1 Outlet Radiation Monitor	KAB60CR002	Reactor Building	NA	Yes	No	NA / NA	NA / NA
CVCS HP Cooler 2 Inlet Radiation Monitor	KAB70CR001	Reactor Building	NA	Yes	No	NA / NA	NA / NA

Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design
(11 Sheets)

Equipment Description	Equipment Tag Number (1)	Equipment Location	IEEE Class 1E (2)	EQ – Harsh Env.	PACS	MCR/RSS Displays	MCR/RSS Controls
CVCS HP Cooler 2 Outlet Radiation Monitor	KAB70CR002	Reactor Building	NA	Yes	No	NA / NA	NA / NA

1) Equipment tag numbers are provided for information only and are not part of the certified design.

2) ^{N} denotes the division the component is normally powered from; ^{A} denotes the division the component is powered from when alternate feed is implemented.

Table 2.7.1-3—Component Cooling Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
2.1	The functional arrangement of the CCWS is as shown in Figure 2.7.1-1.	Inspections of the as-built system will be conducted.	An inspection report exists and concludes that the as-built CCWS conforms to the functional arrangement as shown in Figure 2.7.1-1.
2.2	Equipment shown in Figure 2.7.1-1 is located as listed in Table 2.7.1-1.	An inspection will be performed of the location of the equipment listed in Table 2.7.1-1.	A report exists and concludes that the equipment listed in Table 2.7.1-1 is located as listed in Table 2.7.1-1.
2.3	Physical separation exists between redundant divisions of the CCWS.	An inspection will be performed to verify that redundant divisions of the CCWS are located in separate safeguards buildings.	A report exists and concludes that redundant divisions of the CCWS are located in separate safeguards buildings.
3.1	Equipment listed in Table 2.7.1-1 as ASME Code Section III is designed, welded, and hydrostatically tested in accordance with ASME Code Section III.	a. Analysis of the equipment identified in Table 2.7.1-1 as ASME Code Section III will be performed per ASME Code Section III design requirements. b. Inspections will be conducted on the equipment identified in Table 2.7.1-1 as ASME Code Section III to verify welding has been performed per ASME Code Section III welding requirements. c. Hydrostatic testing of the equipment identified in Table 2.7.1-1 as ASME Code Section III will be performed per ASME Code Section III hydrostatic testing requirements.	a. ASME Code Section III Design Reports (NCA-3550) exist and conclude that the equipment identified in Table 2.7.1-1 as ASME Code Section III meets ASME Code Section III design requirements. b. Equipment identified in Table 2.7.1-1 as ASME Code Section III has been welded per ASME Code Section III welding requirements. c. Equipment identified in Table 2.7.1-1 as ASME Code Section III has been hydrostatically tested per ASME Code Section III hydrostatic testing requirements.
3.2	Check valves listed in Table 2.7.1-1 will function as listed in Table 2.7.1-1.	Tests will be performed for the operation of the check valves listed in Table 2.7.1-1.	The check valves listed in Table 2.7.1-1 perform the functions listed in Table 2.7.1-1.

Table 2.7.1-3—Component Cooling Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.3	Deleted.	Deleted.	Deleted.
3.4	Equipment identified as Seismic Category I in Table 2.7.1-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.7.1-1.	a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.7.1-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. b. Inspections will be performed of the as-installed Seismic Category I equipment listed in Table 2.7.1-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.7.1-1 can withstand seismic design basis loads without loss of safety function. b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.7.1-1 including anchorage is installed as specified on the construction drawings.
3.5	Deleted.	Deleted.	Deleted.
3.6	Deleted.	Deleted.	Deleted.
3.7	Deleted.	Deleted.	Deleted.
3.8	Deleted.	Deleted.	Deleted.
3.9	Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are designed in accordance with ASME Code Section III requirements.	Inspections will be performed for the existence of ASME Code Section III Design Reports.	ASME Code section III Design Reports (NCA-3550) exist for portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1.
3.10	Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are installed in accordance with an ASME Code Section III Design Report.	Inspections will be performed to verify the existence of an analysis which reconciles as-fabricated deviations to the ASME Code Design Report as required by ASME Code Section III.	For portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1, ASME Code Data Reports (N-5) exist and conclude that reconciliation (NCA-3554) of the as-installed system with the Design Report (NCA-3550) has occurred.

Table 2.7.1-3—Component Cooling Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.11	Pressure boundary welds in portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are in accordance with ASME Code Section III.	Inspections of pressure boundary welds verify that welding is performed in accordance with ASME Code Section III requirements.	ASME Code Section III Data Reports exist and conclude that pressure boundary welding for portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 has been performed in accordance with ASME Code Section III.
3.12	Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 retain their pressure boundary integrity at their design pressure.	Hydrostatic tests will be performed on the as-fabricated system.	For portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.13	Portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1 are installed in accordance with ASME Code Section III requirements.	An inspection for the existence of ASME N–5 Data Reports will be performed.	For portions of the CCWS piping shown as ASME Code Section III in Figure 2.7.1-1, N–5 Data Reports exist and conclude that installation is in accordance with ASME Code Section III requirements.
4.1	Displays exist or can be retrieved in the MCR and the RSS as identified in Table 2.7.1-2.	Inspections will be performed for the existence or retrieveability of the displays in the MCR or the RSS as listed in Table 2.7.1-2.	a. The displays listed in Table 2.7.1-2 as being retrieved in the MCR can be retrieved in the MCR. b. The displays listed in Table 2.7.1-2 as being retrieved in the RSS can be retrieved in the RSS.
4.2	Controls exist in the MCR and the RSS as identified in Table 2.7.1-2.	Tests will be performed for the existence of control signals from the MCR and the RSS to the equipment listed in Table 2.7.1-2.	a. The controls listed in Table 2.7.1-2 as being in the MCR exist in the MCR. b. The controls listed in Table 2.7.1-2 as being in the RSS exist in the RSS.
4.3	Equipment listed as being controlled by a PACS module in Table 2.7.1-2 responds to the state requested by a test signal.	A test will be performed using test signals.	Equipment listed as being controlled by a PACS module in Table 2.7.1-2 responds to the state requested by the test signal.

Table 2.7.1-3—Component Cooling Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
4.4	A CCWS low flow condition automatically opens the LHSI/RHR HX inlet valve.	Tests will be performed using test signals to verify the interlock.	The following interlock responds as specified below when activated by a test signal: CCWS low flow condition automatically opens the LHSI/RHR HX inlet valve.
4.5	A surge tank level of MIN3 automatically isolates the associated train common header switchover valves.	Tests will be performed using test signals to verify the interlock.	The following interlock responds as specified below when activated by a test signal: Surge tank level of MIN3 automatically isolates the associated train common header switchover valves.
4.6	A surge tank level of MIN4 automatically trips the associated CCWS pump.	Tests will be performed using test signals to verify the interlock.	The following interlock responds as specified below when activated by a test signal: Surge tank level of MIN4 automatically trips the associated CCWS pump.
4.7	A flow rate difference between the supply and return from NAB and RWB automatically isolates the non-safety related branch.	Tests will be performed using test signals to verify the interlock.	The following interlock responds as specified below when activated by a test signal: Flow rate difference between the supply and return from NAB and RWB automatically isolates the non-safety related branch.
4.8	Loss of one CCWS train initiates an automatic switchover to allow cooling of the common “a” and/or “b” headers.	Tests will be performed using test signals to verify the interlock.	The following interlock responds as specified below when activated by a test signal: Loss of one CCWS train automatically initiates a switchover to allow cooling of the common “a” and/or “b” headers.
4.9	Deleted.	Deleted.	Deleted.

Table 2.7.1-3—Component Cooling Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
5.1	The components designated as Class 1E in Table 2.7.1-2 are powered from the Class 1E division as listed in Table 2.7.1-2 in a normal or alternate feed condition.	a. Testing will be performed for components designated as Class 1E in Table 2.7.1-2 by providing a test signal in each normally aligned division. b. Testing will be performed for components designated as Class 1E in Table 2.7.1-2 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	a. The test signal provided in the normally aligned division is present at the respective Class 1E component identified in Table 2.7.1-2. b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.7.1-2.
5.2	Valves listed in Table 2.7.1-2 fail as-is on loss of power.	Testing will be performed for the valves listed in Table 2.7.1-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.7.1-2 fail as-is.
6.1	Components listed as Class 1E in Table 2.7.1-2 that are designated as harsh environment will perform the function listed in Table 2.7.1-1 in the environments that exist before and during the time required to perform their safety function.	a. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.7.1-2 to perform the function listed in Table 2.7.1-1 for the environmental conditions that could occur before and during a design basis accident. b. For equipment listed for harsh environment in Table 2.7.1-2, an inspection will be performed of the as-installed Class 1E equipment and the associated wiring, cables and terminations.	a. A report exists and concludes that the Class 1E equipment listed for harsh environment in Table 2.7.1-2 can perform the function listed in Table 2.7.1-1 before and during design basis accidents for the time required to perform the listed function. b. Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.7.1-2 for harsh environment conform to the design.

Table 2.7.1-3—Component Cooling Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
7.1	The CCWS heat exchanger as listed in Table 2.7.1-1 has the capacity to transfer the design heat load to the ESWS system.	Tests and analyses will be performed to demonstrate the capability of the CCWS heat exchanger as listed in Table 2.7.1-1 to transfer the heat load to the ESWS.	A report exists and concludes that the ESWS has the capacity to remove the design heat load via the heat exchanger listed in Table 2.7.1-1.
7.2	The pumps listed in Table 2.7.1-1 have sufficient NPSHA.	Testing and analyses will be performed to verify NPSHA for pumps listed in Table 2.7.1-1.	A report exists and concludes that the pumps listed in Table 2.7.1-1 have NPSHA that is greater than net positive suction head required (NPSHR) at system run-out flow.
7.3	The CCWS delivers water to the LHSI/RHRS heat exchangers at the design flow rate to provide cooling.	Tests and analyses will be performed to determine the CCWS delivery rate under design conditions.	The CCWS delivers the following design flow rate to each LHSI/RHR heat exchanger: 2.19 x 106 lb/hr.
7.4	The CCWS delivers water to the RCP thermal barrier coolers.	Tests and analyses will be performed to determine the CCWS delivery rate under design conditions.	A report exists and concludes that the CCWS delivers the following design flowrate to the thermal barrier coolers (0.0198 x 10^6 lb/hr).
7.5	The CCWS delivers water to divisions 2 and 3 Safety Chilled Water Chillers.	Tests and analyses will be performed to determine the CCWS delivery rate under design conditions.	A report exists and concludes that the CCWS delivers the following design flowrate to the safety chilled water chillers (0.373 x 10^6 lb/hr).
7.6	The CCWS delivers water to the spent fuel pool heat exchangers.	Tests and analyses will be performed to determine the CCWS delivery rate under design conditions.	A report exists and concludes that the CCWS delivers the following design flowrate to the spent fuel pool cooling heat exchangers (0.8818 x 10^6 lb/hr).
7.7	Class 1E valves listed in Table 2.7.1-2 perform the function listed in Table 2.7.1-1 under system design conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.7.1-2 to change position as listed in Table 2.7.1-1 under system design conditions.	The as-installed valves change position as listed in Table 2.7.1-1 under system design conditions.

Table 2.7.1-3—Component Cooling Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
7.8	The CCWS provides for flow testing of CCWS pumps during plant operation.	A test will be performed.	A flow test line allows testing of each CCWS pump during plant operation.
7.9	Containment isolation valves listed in Table 2.7.1-1 close within the containment isolation response time following initiation of a containment isolation signal.	Tests will be performed to demonstrate the ability of the containment isolation valves listed in Table 2.7.1-1 to close within the containment isolation response time following initiation of a containment isolation signal.	Containment isolation valves listed in Table 2.7.1-1 close within 60 seconds following initiation of a containment isolation signal.

Next File