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Targeted ITAAC Number	Description	ITAAC Family
2.1.1.1-1	Inspection: The RPV System conforms with the Basic Configuration defined in Section 2.1.1.	05A
2.1.1.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in RPV components meet ASME Section III.	05B
2.1.1.1-3	Type Tests/Analyses: RPV Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	05E
2.1.1.2	Inspection: An ASME Code Certified Stress Report exists for the RPV pressure boundary components.	05F
2.1.1.3	Test: Hydrostatic Test results for RPV ASME Code components meet ASME Section III requirements.	05C
2.1.1.4	Inspection: RPV System conforms with materials selection/testing requirements defined in Section 2.1.1.	05F
2.1.1.5	Inspection: RPV System conforms with fabrication and examination process requirements defined in Section 2.1.1.	05F
2.1.1.6	Inspection: The material surveillance program for the RPV core beltline materials conforms with the commitments defined in Section 2.1.1.	05A
2.1.1.7-2	Test/Inspection: A flow test and post-test inspection conducted on the as-built RPV internals demonstrate that there are no damaged or loose parts.*	05D
2.1.2.1-1	Inspection: The as-built NBS conforms with the Basic Configuration shown in the specified figures.	14A
2.1.2.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in NBS Components meet ASME Section III.	03B
2.1.2.1-3	Type Tests/Analyses: NBS Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	14F
2.1.2.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	14E
2.1.2.1-5	Tests/Type Tests: MOVs identified in the Design Description are qualified to perform their safety functions under design basis differential pressure, system pressure, fluid temperature, ambient temperature, minimum voltage, and minimum and or maximum stroke times.	07E
2.1.2.2	Test: Hydrostatic Test results for NBS ASME Code components meet ASME Section III requirements.	03C
2.1.2.3	Analysis: The combined volume of the four main steam lines (MSLs) and branch lines from the RPV to the main steam turbine stop valves and turbine bypass valves is greater than or equal to 113.2 m3.	03A
2.1.2.4	Inspection: The throat diameter of each MSL flow limiter is less than or equal to 355mm.	06A

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2.1.2.5	Test: The MSL pneumatic drain line valve shown in Figure 2.1.2b opens when either electric power to the valve actuating solenoid is lost, or pneumatic pressure to the valve is lost.	07C
2.1.2.6a	Test: The MSIV closing time (preoperational conditions) is equal to or greater than 3 and less than or equal to 4.5 seconds.	07D
2.1.2.6b	Test/Type test: The MSIV closing time (design basis conditions) is equal to or greater than 3 and less than or equal to 4.5 seconds.	07E
2.1.2.7	Test/Analysis: With all MSIVs closed, the combined leakage through the MSIVs for all four MSLs is less than or equal to 66.1 liters per minute at specified temperature/pressure conditions.	11D
2.1.2.8	Test: The MSIV closes when pneumatic pressure is removed from the MSIV actuator.	07C
2.1.2.9a	Test/Analysis (at test facility): SRV capacities/set pressures are shown in Section 2.1.2 (table). SRV opening time from time pressure exceeds valve set pressure to time the valve is fully open is less than or equal to 0.3 seconds.	07F
2.1.2.9b	Test (at test facility): SRV relief mode opening time from receipt of signal at valve actuator to the full ASME lift position is less than or equal to 0.25 seconds at specified inlet pressure.	07C
2.1.2.10	Type Test/Analysis: SRV ADS accumulator capacities meet specified requirements.	07F
2.1.2.11	Test: Simulated input signal to power actuated relief logic causes valve solenoid to receive initiation signal.	10D
2.1.2.12a	Test: ADS logic is automatically initiated as specified when a low reactor water level signal is present concurrent with a high drywell pressure signal.	10D
2.1.2.12b	Test: ADS logic is automatically initiated as specified when a low reactor water level signal is present in the absence of a high drywell pressure signal.	10D
2.1.2.13a	Test: When the test identified in ITAAC 2.1.2.12a is conducted AND a simulated APRM ATWS permissive signal is present, ADS actuation does not occur.	10D
2.1.2.13b	Test: When the test identified in ITAAC 2.1.2.12a is conducted AND the ADS manual inhibit device is set to inhibit, ADS actuation does not occur.	10D
2.1.2.14	Test: Upon receipt of a manual initiation signal, an ADS actuation signal is present at the associated ADS valve solenoids.	10D
2.1.2.15	Analysis: Report exists and concludes that the RPV water level instrumentation considers the effects of dissolved non-condensable gasses in the RPV water level instrument lines.	10F
2.1.2.16	Inspection: The mechanical portion of each NBS instrumentation division is physically separated from the other divisions by structural and/or fire barriers.	10A
2.1.2.17	Analysis: A stress report exists. This report documents that a dynamic seismic analysis has been performed.*	03E
2.1.2.18a	Test: Test signal exists in only the NBS Class 1E division under test.	08C

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Targeted ITAAC Number	Description	ITAAC Family
2.1.2.18b	Inspection: Physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.1.2.19	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.1.2.	10A
2.1.2.20	Inspection: Displays and controls exist on the RSS as defined in Section 2.1.2.	10A
2.1.2.21	Test: MOVs designated in Section 2.1.2 as having an active safety-related function close under preoperational pressure, flow, and temperature conditions.	07D
2.1.2.22	Test: CVs designated in Section 2.1.2 as having an active safety-related function open, close, or both open and close under system preoperational pressure, flow, and temperature conditions.	07D
2.2.2.5	Test (in a test facility): The FMCRD electro-mechanical brake has a minimum holding torque of 49 N-m on the motor drive shaft.*	08D
2.2.4.3g.3	Analysis: RHR shutdown cooling system inventory is less than or equal to 130x103 kg at 200 C.*	03F
2.2.6.2	Test: Operation of transfer switches on the RSS panel overrides and isolates the controls from the MCR and transfers control to the RSS.*	10C
2.2.7.1	Inspection: As-built RPS conforms with the description in Section 2.2.7.	10A
2.2.7.2	Test: The RPS LDs change their states to interrupt electrical power to scram solenoids. RPS back-up scram relays close and RCIS relays close to provide signals to RCIS.	10D
2.2.7.3	Test: Manual scram push buttons pushed independently and simultaneously result in responses that meet specified requirements	10D
2.2.7.4	Test: During the 10 second time period after scram initiation, reset does not occur.	10D
2.2.7.5	Test: RPS initiates a reactor internal pump trip (RIP) on receipt of either a simulated signal indicating turbine stop valve closure or low control valve oil pressure as specified.	10D
2.2.7.6	Test: Upon loss of electrical power to one division of RPS logic, the load drivers (LDs) of that division change state to interrupt electrical power to scram solenoids.	10D
2.2.7.7a	Test: Test signal provided to only one as-built Class 1E division at a time results in signal existing in only the division under test.	08C
2.2.7.7b	Inspection: Physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.2.7.8	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.2.7.	10A
2.3.1.7	Test: Protective action signals are generated when both channels trip.*	19D
2.4.1.1-1	Inspection: The as-built RHR System conforms with the Basic Configuration shown in the specified figures.	14A
2.4.1.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in RHR components meet ASME Section III.	03B

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Targeted ITAAC Number	Description	ITAAC Family
2.4.1.1-3	Type Tests/Analyses: RHR Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	14F
2.4.1.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	14E
2.4.1.1-5	Tests/Type Tests: MOVs identified in the Design Description are qualified to perform their safety functions under design basis differential pressure, system pressure, fluid temperature, ambient temperature, minimum voltage, and minimum and or maximum stroke times.	07E
2.4.1.2	Test: Hydrostatic Test results for RHR ASME Code components meet ASME Section III requirements.	03C
2.4.1.3a	Test: Simulated high drywell pressure or low reactor water level input signals cause each division of the RHR System to receive an initiation signal (in the LPFL Mode) as specified.	10D
2.4.1.3b	Test: Manual initiation of each RHR division (LPFL Mode) results in each division of the RHR system receiving an initiation signal.	10D
2.4.1.3c	Test: Following receipt of a simulated initiation signal and a simulated low reactor pressure permissive signal, the RHR System automatically initiates and operates in the LPFL mode to provide emergency makeup to the reactor vessel as specified.	10D
2.4.1.3d	Test/Analysis: Test results of the as-built RHR System (in the LPFL mode) will be analyzed to assure that the converted RHR flow results meet specified requirements.	06F
2.4.1.3e	Test: With the RHR System in either the test mode, suppression pool cooling mode, or wetwell spray mode, a simulated initiation signal causes each division to automatically align to the LPFL mode of operation as specified.	10D
2.4.1.3f	Test: Open drywell spray valves in a RHR division automatically close on receipt of injection valve not fully closed signal in that division.	10D
2.4.1.3g	Test: The RPV injection valve in each RHR division requires a low reactor vessel pressure permissive signal to open and closes automatically on receipt of a high reactor vessel pressure signal.	10D
2.4.1.4a	Inspection/Analysis: In the suppression pool cooling mode, the total heat removal capacity between the RHR System and ultimate heat sink is no less than 0.371 MJ/s0C for each division.	06F
2.4.1.4b	Test: In the suppression pool cooling mode, the RHR tube side heat exchanger flow rate is 954 M3/h minimum, per division.	06D
2.4.1.4c	Inspection/Test/Analysis: The RHR pumps have sufficient NPSH.	06F
2.4.1.5a	Test: The two in-series drywell spray valves are blocked from being opened simultaneously unless signals indicative of specified conditions exist concurrently.	10D

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Targeted ITAAC Number	Description	ITAAC Family
2.4.1.5b	Test: Wetwell spray flow rate for either RHR division B or C is greater than or equal to 114 m3/h.	06D
2.4.1.6a	Test: RHR shutdown mode operates when reactor vessel pressure is below system low pressure permissive and cannot be manually initiated when pressure is not less than permissive.	10D
2.4.1.6b	Test: In any division, the shutdown cooling suction valve cannot be opened unless the specified valves in that division are closed.	10D
2.4.1.6c	Test: Each shutdown cooling suction valve automatically closes on low reactor water level.	10D
2.4.1.6d	Test: The shutdown cooling suction valves close when the RHR System receives a simulated high reactor vessel pressure signal.	10D
2.4.1.6e	Inspection/Test/Analysis: The RHR heat exchanger tube side flow rate is greater than or equal to 954 m3/h. Heat exchanger removal capacity in this mode is bounded by suppression pool cooling requirements.	06F
2.4.1.7	Inspection/Test/Analysis: The RHR tube side heat exchanger flow rate is greater than or equal to 350 m3/h in the augmented fuel pool cooling mode. Heat exchanger heat removal capacity in this mode is bounded by suppression pool cooling requirements.	06F
2.4.1.8a	Test: RHR pump minimum flow valve correctly receives open or close signal in response to specified conditions.	10D
2.4.1.8b	Test/Analysis: The available minimum RHR pump flow exceeds the required minimum flow.	06D
2.4.1.9a	Test: The test signal exists only in the RHR System Class 1E division under test.	08C
2.4.1.9b	Inspection: Physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.4.1.10	Inspection: Each RHR System mechanical division is physically separated from other RHR mechanical divisions by structural and/or fire barriers with the exception of components inside primary containment.	06A
2.4.1.11	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.4.1.	10A
2.4.1.12	Inspection: Displays and controls exist on the RSS as defined in Section 2.4.1.	10A
2.4.1.13a	Test: MOVs designated in Section 2.4.1 as having an active safety function, open, close, or both open and close under preoperational pressure, flow, and temperature conditions.	07D
2.4.1.13b	Test: CVs designated in Section 2.4.1 as having an active safety function open, close, or both open and close under preoperational pressure, flow, and temperature conditions.	07D
2.4.1.14	Test: The RHR System main pumps are interlocked to prevent starting with a closed suction path as specified.	10D
2.4.2.3f	Test: The HPCF System flow is achieved within 16 seconds of receipt of a simulated initiation signal.*	14D
2.4.4.1-1	Inspection: The as-built RCIC System conforms with the Basic Configuration shown in the specified figures.	14A

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Targeted ITAAC Number	Description	ITAAC Family
2.4.4.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in RCIC components meet ASME Section III.	03B
2.4.4.1-3	Type Tests/Analyses: RCIC Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	14F
2.4.4.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	14E
2.4.4.1-5	Tests/Type Tests: MOVs identified in the Design Description are qualified to perform their safety functions under design basis differential pressure, system pressure, fluid temperature, ambient temperature, minimum voltage, and minimum and or maximum stroke times.	07E
2.4.4.2	Test: Hydrostatic Test results for RCIC ASME Code components meet ASME Section III requirements.	03C
2.4.4.3a	Test: Simulated high drywell pressure or low reactor water level input signals cause the RCIC System to receive an initiation signal.	10D
2.4.4.3b	Test: Manually initiating RCIC causes the RCIC System to receive an initiation signal.	10D
2.4.4.3c	Test: Following receipt of an initiation signal, the RCIC System automatically initiates and operates in the RPV water makeup mode as specified.	10D
2.4.4.3d	Test: The RCIC System automatically shuts down when a high reactor water level condition exists.	10D
2.4.4.3e	Test: Following receipt of a shutdown signal, the RCIC System automatically terminates the RPV makeup mode as specified.	10D
2.4.4.3f	Test: Following RCIC shutdown on high reactor water level signal, the RCIC System automatically restarts to provide RPV water makeup as specified if low reactor water level signal recurs.	10D
2.4.4.3g	Test: The RCIC System automatically initiates suction transfer from the CST to the suppression pool when either a low CST water level or a high suppression pool water level exists.	10D
2.4.4.3h	Test: Following receipt of suction transfer initiation signal, the RCIC System automatically switches pump suction as specified. This transfer can be manually overridden from the MCR.	10D
2.4.4.3i	Test (conducted in a test facility): In the RPV water makeup mode, the RCIC pump delivers specified flow rate against the specified differential pressure. The RCIC turbine delivers required speed and torque at these conditions.	06D
2.4.4.3j	Inspection/Test/Analysis: The available RCIC System NPSH exceeds the NPSH required by the RCIC pump.	06F

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Targeted ITAAC Number	Description	ITAAC Family
2.4.4.3k	Inspection/Analyses: The RCIC System can operate for a period of at least 2 hours under conditions of no AC power availability and no other simultaneous failures, accidents, or other design basis conditions.	14F
2.4.4.3l	Test: RCIC System components required for system operation can be actuated locally.	06D
2.4.4.4	Test: The RCIC System automatically aligns to RPV water makeup mode from test mode upon receipt of an initiation signal.	10D
2.4.4.5	Test: The RCIC System has a minimum flow bypass mode that assures there is always flow in the RCIC pump when it is operating.	10D
2.4.4.6a	Test: When a test signal is provided to a RCIC Class 1E division, the test signal exists only in the Class 1E division under test.	08C
2.4.4.6b	Inspection: Physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.4.4.7	Inspection: Outside the primary containment, except for the piping from the CST, the RCIC System shown on Figure 2.4.4a is physically separated from the two divisions of the HPCF System by structural and/or fire barriers.	06A
2.4.4.8	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.4.4.	10A
2.4.4.9a	Test: MOVs designated in Section 2.4.4 as having an active safety function, open, close, or both open and close under preoperational pressure, flow, and temperature conditions. Specified open/close times for identified valves are met.	07D
2.4.4.9b	Test: CVs designated in Section 2.4.4 as having an active safety function open, close, or both open and close under preoperational pressure, flow, and temperature conditions.	07D
2.4.4.10	Test: The RCIC turbine is tripped if low suction pressure condition is present.	10D
2.5.5.1	Inspection: The as-built refueling machine conforms with the basic configuration described in Section 2.5.5.*	13A
2.5.5.2b	Test: Interlocks on the as-built refueling machine limit vertical travel of the fuel grapple to provide shielding over the grappled fuel during transit.*	13D
2.5.6.2	Analyses: An analysis report exists which concludes that the new and spent fuel racks have a subcriticality of at least 5%deltak under dry or flooded conditions.*	13F
2.7.1b.2b	Inspection: In the as-built MCRP, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.7.5.1	Inspection: The as-built essential multiplexing system (EMS) and non-essential multiplexing system (NEMS) conform with the description in Section 2.7.5.	10A
2.7.5.2	Test: EMS uses a deterministic communications protocol.	10D

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Targeted ITAAC Number	Description	ITAAC Family
2.7.5.3	Test: EMS communication only permits data transfer from the EMS to the non-safety related systems or devices. Control or timing signals are not exchanged between EMS and non-safety related systems or devices.	10D
2.7.5.4	Test: There is no loss of EMS data communication as a result of a single cable break or loss of a RMU/CMU. Such failure is displayed in the MCR.	10D
2.7.5.5	Test: Loss of data communications in a division of EMS does not cause transient or erroneous data to occur at system outputs.	10D
2.7.5.6a	Test: With a test signal applied to only one EMS Class 1E division at a time, the test signal only exists in the division under test.	08C
2.7.5.6b	Inspection: In the as-installed EMS, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.7.5.7	Inspection: Alarms and displays exist or can be retrieved in the MCR as defined in Section 2.7.5.	10A
2.10.1.5	Analysis: An analysis report exists and concludes that the as-built MS piping and SA valve(s) can withstand a SSE without loss of structural integrity.*	04F
2.11.3d.1-1	Inspection: The as-built RCW System conforms with the Basic Configuration shown in the specified figures.	14A
2.11.3d.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in RCW components meet ASME Section III.	03B
2.11.3d.1-3	Type Tests/Analyses: RCW Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	14F
2.11.3d.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	14E
2.11.3d.1-5	Tests/Type Tests: MOVs identified in the Design Description are qualified to perform their safety functions under design basis differential pressure, system pressure, fluid temperature, ambient temperature, minimum voltage, and minimum and or maximum stroke times.	07E
2.11.3d.2	Test: Hydrostatic Test results for RCW ASME Code components meet ASME Section III requirements.	03C
2.11.3d.3	Test: Upon receipt of simulated LOCA signals, the responses of the RCW System are as specified in Section 2.11.3.	10D
2.11.3d.4	Inspection/Test/Analyses: The estimated heat removal capacities of the as-built RCW System divisions exceed the estimated heat removal requirements of the components cooled by the RCW System divisions during LOCA conditions.	06F

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Targeted ITAAC Number	Description	ITAAC Family
2.11.3d.5a	Test: With a test signal applied to only one RCW Class 1E division at a time, the test signal only exists in the division under test.	08C
2.11.3d.5b	Inspection: In the as-installed RCW System, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.11.3d.6	The safety-related portions of each mechanical division of the as-built RCW System is physically separated from the safety-related portions of the other mechanical divisions of the RCW System.	06A
2.11.3d.7	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.11.3.	10A
2.11.3d.8	Inspection: Displays and controls exist on the RSS as defined in Section 2.11.3.	10A
2.11.3d.9	Test: MOVs designated in Section 2.11.3 as having an active safety function, open, close, or both open and close under differential pressure, flow, and temperature conditions.	07D
2.11.3d.10	Test: CVs designated in Section 2.11.3 as having an active safety function open, close, or both open and close under system pressure, flow, and temperature conditions.	07D
2.11.3d.11	Test: The as-built pneumatic actuated valves listed in this ITAAC description fail as described when either electric power to the valve actuating solenoid is lost or pneumatic pressure to the valve is lost.	07C
2.11.3d.12	Inspection/volume calculation: The capacity of the RCW surge tanks is greater than or equal to 16 m3.	06A
2.11.3d.13	Test: The MUWP makeup valve opens and pneumatic and motor-operated valves which stop flow to the non-safety-related components close upon receipt of a low surge tank water level signal.	10D
2.11.6.3	Type Test (at a test facility): Each HEWC System refrigerator unit has a capacity of not less than 2.43 GJ/h.*	06E
2.11.9.1-1	Inspection: The as-built RSW System conforms with the Basic Configuration shown in figure 2.11.9.	14A
2.11.9.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in RSW components meet ASME Section III.	03B
2.11.9.1-3	Type Tests/Analyses: RSW Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	14F
2.11.9.1-5	Tests/Type Tests: MOVs identified in the Design Description are qualified to perform their safety functions under design basis differential pressure, system pressure, fluid temperature, ambient temperature, minimum voltage, and minimum and or maximum stroke times.	07E
2.11.9.2	Test: Hydrostatic Test results for RSW ASME Code components meet ASME Section III requirements.	03C
2.11.9.3	Test: Upon receipt of simulated LOCA and/or LOPP signals, the standby heat exchanger inlet and outlet valves open.	10D
2.11.9.4	Test: The heat exchanger inlet and outlet valves close upon receipt of a signal indicating Control Building flooding in that division.	10D

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Targeted ITAAC Number	Description	ITAAC Family
2.11.9.5a	Test: For each of the three RSW divisions, a test signal provided to only one division at a time results in the test signal only existing in the division under test.	08C
2.11.9.5b	Inspection: In the as-installed RSW System, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.11.9.6	Inspection: Each mechanical division of the as-built RSW System is physically separated from other mechanical divisions of the RSW System by structural and/or fire barriers.	06A
2.11.9.7	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.11.9.	10A
2.11.9.8	Inspection: Indications and controls exist on the RSS as defined in Section 2.11.9.	10A
2.11.9.9	Test: MOVs designated in Section 2.11.9 as having an active safety function open and close under differential pressure, flow, and temperature conditions.	07D
2.12.1.1-1	Inspection: As-built EPD System conforms with the basic configuration described in Section 2.12.1.	08A
2.12.1.1-3	Type Tests/Analyses: EPD Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	08E
2.12.1.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	08E
2.12.1.2	Analyses: As-built UAT capacity, as determined by its nameplate rating, exceeds its analyzed load requirements, during design operating modes, for its Class 1E division and non-Class 1E load group.	08F
2.12.1.3	Inspection: As-built UATs are separated from the RATs by a minimum of 15.24m	08A
2.12.1.4	Inspection: As-built UATs are provided with their own oil pit, drain, fire deluge system, grounding, and lightning protection systems.	08A
2.12.1.5	Inspection: The as-built PMG and its output circuit breaker are separated from the RAT(s) power feeders as specified. The PMG and its output circuit breaker instrument and control (I&C) circuits are separated from the RAT(s) I&C circuits as specified.	08A
2.12.1.6	Inspection: As-built UAT power feeders, and I&C circuits are separated from the RAT(s) output power feeders, and I&C circuits as specified.	08A
2.12.1.7	Inspection: The as-built MPT and its switching station I&C are separated from the RAT(s) and its I&C as specified.	08A

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Targeted ITAAC Number	Description	ITAAC Family
2.12.1.8	Analyses: Analyses for the as-built EDP System exist and conclude that the capacities of the Class 1E switchgear, P/C transformers, MCCs, and their respective feeder and load circuit breakers, as determined by their nameplate ratings, exceed their analyzed load requirements.	08F
2.12.1.9a	Analyses: Analyses for the as-built EDP System exist and conclude that the Class 1E switchgear, with their respective transformers, and MCC, current capacities exceed their analyzed fault currents as specified.	08F
2.12.1.9b	Analyses: Analyses for the as-built EDP System exist and conclude that the analyzed fault currents do not exceed the PMG output circuit breaker, and M/C, P/C switchgear, and MCC feeder and load circuit breakers interrupt capacities as determined by their nameplate ratings.	08F
2.12.1.10a	Analyses: Analyses for the as-built EDP System exist and conclude that the Class 1E preferred offsite feeder breakers to the Class 1E M/C switchgear will trip as specified under degraded voltage conditions.	08F
2.12.1.10b	Test: As-built Class 1E feeder breakers from the preferred offsite power to the Class 1E M/C switchgear trip when a degraded voltage condition exists.	08C
2.12.1.11	Analyses: Analyses for the as-built EDP System exist and conclude that the analyzed circuit interrupter closest to the fault will open before other devices.	08F
2.12.1.12	Test: When a test signal is provided to only one Class 1E division of the as-built Class 1E medium and low voltage switchgear at a time, the signal exists in only the division under test.	08C
2.12.1.13	Test: When a test signal is provided to only one as-built PMG output circuit breaker trip circuit at a time, the test signal exists in only the circuit under test.	08C
2.12.1.14	Analyses: Analyses for the as-built EDP System exist and conclude that cable and bus duct capacities, as determined by cable and bus duct ratings, exceed their analyzed load requirements.	08F
2.12.1.15	Analyses: Analyses for the as-built EDP System exist and conclude that cables and bus ducts will withstand the analyzed fault currents for the time required, as determined by the circuit interrupting device coordination analyses, to clear the analyzed faults from their power sources.	08F
2.12.1.16a	Test: When a test signal is applied to only one Class 1E division of the as-built EPD System at a time, a test signal exists only in the division under test.	08C
2.12.1.16b	Inspection: In the EPD System, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.12.1.17	Inspection: As-built Class 1E M/C and P/C switchgear and MCCs are properly identified.	08A

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Targeted ITAAC Number	Description	ITAAC Family
2.12.1.18	Inspection: As-built Class 1E M/C and P/C switchgear and MCCs are located as specified.	08A
2.12.1.19	Inspection: As-built Class 1E EPD System cables and raceways are properly identified.	09A
2.12.1.20	Inspection:As-built Class 1E divisional cables are routed as specified.	09A
2.12.1.21	Analyses: Analyses for the as-built EDP System exist and conclude that harmonic distortion waveforms do not exceed specified values.	08F
2.12.1.22a	Analyses: Analyses for the as-built EDP System exist and conclude that the analyzed operating voltage supplied at the terminals of the Class 1E utilization equipment meets specified requirements.	08F
2.12.1.22b	Test: Connected as-built Class 1E loads operate at their analyzed minimum voltage.	08C
2.12.1.23	Inspection: As-built EDP System grounding systems and lightning protection systems meet specified requirements.	08A
2.12.1.24	Inspection:DisplaysandcontrolsexistorcanberetrievedintheMCRasdefinedin Section2.12.1.	10A
2.12.1.25	Inspection:DisplaysandcontrolsexistorcanberetrievedontheRSSasdefinedin Section2.12.1.	10A
2.12.11.1	Inspection: As-built CTG conforms with the basic configuration described in Section 2.12.11.	14A
2.12.11.2	Test: As-built CTG can supply power to the non-Class 1E PIP busses or to the Class 1E divisional busses.	08C
2.12.11.3	Inspection: As-built CTG capacity to supply power is at least as large as the capacity of a DG.	08A
2.12.11.4	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.12.11.	10A
2.12.12.1-1	Inspection: As-built Direct Current Power Supply conforms with the basic configuration described in Section 2.12.12.	08A
2.12.12.1-3	Type Tests/Analyses: Direct Current Power Supply Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	08E
2.12.12.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	08E
2.12.12.2	Inspection: Each as-built Class 1E divisional battery (Divisions I, II, and III) is provided with a normal battery charger that is supplied AC power from a MCC in the same Class 1E division as the battery. The Division IV normal battery charger is supplied AC power from a Division II MCC.	08A

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Targeted ITAAC Number	Description	ITAAC Family
2.12.12.3	Test: As-built Class 1E interlocks prevent paralleling between Class 1E divisions. Connections between Class 1E divisions are manual only.	08C
2.12.12.4a	Analyses: Analyses of the as-built Class 1E batteries exist and conclude that each Class 1E battery has the capacity, as determined by the as-built battery rating, to supply its analyzed design loads, at the end of installed life, for a minimum of 2 hours without recharging.	08F
2.12.12.4b	Test: The capacity of each as-built Class 1E battery equals or exceeds the analyzed battery design duty cycle capacity.	08C
2.12.12.5	Test: Each as-built Class 1E normal battery charger can supply its respective Class 1E division's normal steady state loads while charging its respective Class 1E battery.	08C
2.12.12.6	Analyses: Analyses for the as-built Class 1E EDS exist and conclude that Class 1E battery and battery charger circuit breakers, and DC distribution panels, MCCs, and their circuit breakers and fuses, are sized to supply their load requirements.	08F
2.12.12.7a	Analyses: Analyses for the as-built Class 1E EDS exist and conclude that the Class 1E battery, battery chargers, and DC distribution panels, and MCCs are rated to withstand fault currents for the time required to clear the fault from its power source.	08F
2.12.12.7b	Analyses: Analyses for the as-built Class 1E EDS exist and conclude that circuit breakers and fuses in Class 1E battery, battery charger, DC distribution panel, and MCC circuits are rated to interrupt fault currents.	08F
2.12.12.8	Analyses: Analyses for the as-built Class 1E EDS circuit interrupting devices exist and conclude that the analyzed circuit interrupter closest to the fault will open before other devices.	08F
2.12.12.9	Analyses: Analyses for the as-built Class 1E EDS cables exist and conclude that cables are sized to supply their load requirements.	09F
2.12.12.10	Analyses: Analyses for the as-built Class 1E EDS cables exist and conclude that cables are rated to withstand fault currents for the time required to clear the fault.	09F
2.12.12.11a	Analyses: Analyses for the as-built Class 1E EDS exist and conclude that the analyzed operating voltage supplied at the terminals of the Class 1E utilization equipment meets specified requirements.	08F
2.12.12.11b	Test: Connected as-built Class 1E loads operate at less than or equal to the minimum allowable battery voltage and at greater than or equal to the maximum battery charging voltage.	08C
2.12.12.12	Inspection: Each as-built Class 1E battery is located in a seismic Cat 1 structure and in its respective divisional battery room.	08A
2.12.12.13	Inspection: As-built DC distribution panels and MCCs are properly identified and located.	08A
2.12.12.14	Inspection: As-built Class 1E distribution system cables and raceways are properly identified and cables are properly routed.	09A
2.12.12.15a	Test: A test signal exists in only the as-built Class 1E division under test in the as-built DC EDS.	08C

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Targeted ITAAC Number	Description	ITAAC Family
2.12.12.15b	Inspection: In the as-built EDS, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.12.12.16	Inspection: Alarms and displays exist or can be retrieved in the MCR as defined in Section 2.12.12.	10A
2.12.13.1-1	Inspection: As-built DG System conforms with the basic configuration described in Section 2.12.13.	14A
2.12.13.1-3	Type Tests/Analyses: DG Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	14E
2.12.13.2	Analyses: Analyses exist and conclude that as-built DG System capacities exceed, as determined by their nameplate ratings, their load demand following a LOCA.	08F
2.12.13.3	Test: As-built DGs start 5 times without recharging their air start receiver tanks.	06C
2.12.13.4	Test: As-built DGs automatically start on receiving LOPP signal and attain a voltage and frequency in less than or equal to 20 seconds as specified.	10D
2.12.13.5	Test: As-built DGs automatically start on receiving LOCA signal and attain a voltage and frequency in less than or equal to 20 seconds as specified.	10D
2.12.13.6	Test: In the as-built DG System, when LOCA and LOPP signals exist, the DG automatically connects to its respective divisional bus a specified.	10D
2.12.13.7	Test: As-built DGs automatically start on receiving a manual start signal from the MCR or from the local control station and attain a voltage and frequency in less than or equal to 20 seconds as specified.	10D
2.12.13.8	Test: When the as-built DG Systems are operating in the test mode with offsite power and a loss of offsite power or a LOCA signal is received, DGs automatically disconnect from their respective divisional busses.	10D
2.12.13.9a	Test: A test signal exists in only the as-built Class 1E division under test in the as-built DG System.	08C
2.12.13.9b	Inspection: In the as-built DG Systems, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.12.13.10	Inspection: Each DG with its auxiliary systems is physically separated from the other divisions by structural and/or fire barriers.	14A
2.12.13.11	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.12.13.	10A
2.12.13.12	Inspection: Displays exist or can be retrieved on the RSS as defined in Section 2.12.13.	10A
2.12.14.1-1	Inspection: As-built Vital AC Power Supply conforms with the basic configuration described in Section 2.12.14.	08A
2.12.14.1-3	Type Tests/Analyses: Vital AC Power Supply Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	08E

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Targeted ITAAC Number	Description	ITAAC Family
2.12.14.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	08E
2.12.14.2	Inspection: Each as-built CVCF unit has three input power sources configured as specified.	08A
2.12.14.3	Test: Each as-built Class 1E CVCF unit automatically and manually transfers between the unit's three power sources and maintains continuity of power during transfer from the inverter to the alternate supply.	08C
2.12.14.4	Analyses: Analyses for each as-built Class 1E CVCF unit exist and conclude that each CVCF unit's capacity, as determined by its nameplate rating, exceeds its analyzed load requirements.	08F
2.12.14.5	Inspection: The as-built Class 1E CVCF units and their respective distribution panels are identified and located as specified.	08A
2.12.14.6a	Test: A test signal provided in only one Class 1E division at a time results in a test signal existing only in the division under test.	08C
2.12.14.6b	Inspection: In the Vital AC Power Supply, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.12.14.7	Analyses: Analyses of the as-built Class 1E Vital AC Power Supply system distribution panels and their respective circuit breakers and fuses exist and conclude that the capacity of these devices, as determined by their nameplate ratings, exceed their analyzed load requirements.	08F
2.12.14.8	Analyses: Analyses of the as-built Class 1E Vital AC Power Supply system distribution panels exist and conclude that the current capacities of the panels exceed their analyzed fault current for the time required, as determined by the circuit interrupting device coordination analyses, to clear the fault from its power source.	08F
2.12.14.9	Analyses: Analyses of the as-built Class 1E Vital AC Power Supply system distribution system exist and conclude that the analyzed fault currents do not exceed the distribution system circuit breakers and fuses interrupt capabilities, as determined by their nameplate ratings.	08F
2.12.14.10	Analyses: Analyses of the as-built Class 1E Vital AC Power Supply system circuit interrupting devices (circuit breakers and fuses) coordination exist and conclude that the analyzed circuit interrupter closest to the fault will open before other devices.	08F
2.12.14.11	Analyses: Analyses of the as-built Class 1E Vital AC Power Supply system cables exist and conclude that the capabilities of the distribution system cables exceed, as determined by their cable ratings, their analyzed load requirements.	09F

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Targeted ITAAC Number	Description	ITAAC Family
2.12.14.12	Analyses: Analyses of the as-built Class 1E Vital AC Power Supply system cables exist and conclude that the distribution system cable current capacities exceed their analyzed fault current for the time required, as determined by the circuit interrupting device coordination analyses, to clear the fault from its power source.	09F
2.12.14.13	Analyses: Analyses of the as-built Class 1E Vital AC Power Supply system exist and conclude that the analyzed operating voltage supplied at the terminals of the Class 1E utilization equipment meets specified requirements.	08F
2.12.14.14	Inspection: As-built Class 1E Vital AC Power Supply system cables are identified and routed as specified.	09A
2.12.14.15	Inspection: Alarms exist or can be retrieved in the MCR as defined in Section 2.12.14.	10A
2.12.15.1-1	Inspection: As-built I&C Power Supply conforms with the basic configuration described in Section 2.12.15.	08A
2.12.15.1-3	Type Tests/Analyses: Vital I&C Power Supply Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	08E
2.12.15.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	08E
2.12.15.2	Inspection: The power to each as-built Class 1E I&C Power Supply voltage regulating device is supplied from an AC MCC in the same Class 1E division as the device.	08A
2.12.15.3	Analyses: Analyses for each as-built Class 1E I&C Power Supply exist and conclude that each I&C Power Supply capacity, as determined by its nameplate rating, exceeds its analyzed load requirements.	08F
2.12.15.4	Inspection: The as-built Class 1E I&C Power Supplies and their respective distribution panels are identified and located as specified.	08A
2.12.15.5a	Test: A test signal provided in only one Class 1E division at a time results in a test signal existing only in the division under test.	08C
2.12.15.5b	Inspection: In the I&C Power Supply system, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.12.15.6	Analyses: Analyses of the as-built Class 1E I&C Power Supply system distribution panels and their respective circuit breakers and fuses exist and conclude that the capacity of these devices, as determined by their nameplate ratings, exceed their analyzed load requirements.	08F

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Targeted ITAAC Number	Description	ITAAC Family
2.12.15.7	Analyses: Analyses of the as-built Class 1E I&C Power Supply system distribution panels exist and conclude that the current capacities of the panels exceed their analyzed fault current for the time required, as determined by the circuit interrupting device coordination analyses, to clear the fault from its power source.	08F
2.12.15.8	Analyses: Analyses of the as-built Class 1E I&C Power Supply system distribution system exist and conclude that the analyzed fault currents do not exceed the distribution system circuit breakers and fuses interrupt capabilities, as determined by their nameplate ratings.	08F
2.12.15.9	Analyses: Analyses of the as-built Class 1E I&C Power Supply system circuit interrupting devices (circuit breakers and fuses) coordination exist and conclude that the analyzed circuit interrupter closest to the fault will open before other devices.	08F
2.12.15.10	Analyses: Analyses of the as-built Class 1E I&C Power Supply system cables exist and conclude that the capabilities of the distribution system cables exceed, as determined by their cable ratings, their analyzed load requirements.	09F
2.12.15.11	Analyses: Analyses of the as-built Class 1E I&C Power Supply system cables exist and conclude that the distribution system cable current capacities exceed their analyzed fault current for the time required, as determined by the circuit interrupting device coordination analyses, to clear the fault from its power source.	09F
2.12.15.12	Analyses: Analyses of the as-built Class 1E I&C Power Supply system exist and conclude that the analyzed operating voltage supplied at the terminals of the Class 1E utilization equipment meets specified requirements.	08F
2.12.15.13	Inspection: As-built Class 1E I&C Power Supply system cables and raceway are properly identified and cables are routed as specified.	09A
2.14.1.1-1	Inspection: As-built PCS conforms with the basic configuration shown on figure 2.14.1.	11A
2.14.1.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in PCS Components meet ASME Section III.	11B
2.14.1.1-3	Type Tests/Analyses: PCS Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	11E
2.14.1.2	Inspection: An ASME Code Certified Stress Report exists for the pressure boundary components.	11F
2.14.1.3	Test: SIT on pressure boundary components demonstrates that pressure boundary components conform with ASME Code requirements.	11C
2.14.1.4	Analyses: The Design Basis Accident maximum calculated pressures and temperatures are less than design conditions.	11F
2.14.1.5	Test: ILRT results meet specified requirements.	11C
2.14.1.6	Test: SIT report exists and concludes that the diaphragm floor is able to withstand the design differential pressure.	11F

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Targeted ITAAC Number	Description	ITAAC Family
2.14.1.7	Inspection: Installed horizontal vent system is configured as described in Section 2.14.1.	11A
2.14.1.8	Inspection: Displays and alarms exist or can be retrieved in the MCR as defined in Section 2.14.1.	10A
2.14.1.9	Analyses: The as-built vacuum breaker position switches have adequate sensitivity to detect the allowable S/P bypass capacity of the containment.	11F
2.14.1.10	Analyses: The water volume in the suppression pool of the as-built PCS, including the vents, is equal to or greater than 3580m3.	11F
2.14.1.11	Inspection: The SRVDL quenchers are located within the suppression pool as described in Section 2.14.1.	06A
2.14.1.12	Test: Corium protection fill contains less than 4% of calcium carbonate material by weight.	11C
2.14.1.13	Inspection: Lower drywell imbedded sumps are protected by corium shields.	11A
2.14.1.14	Analyses: A structural analyses report exists and concludes that the as-built internal structures are able to withstand the design basis loads as defined in Section 2.14.1.	11F
2.15.3.1-3	Type Tests/Analyses: Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.*	13E
2.15.3.2	Test: The R/B crane interlock prevents the carrying of a load greater than one fuel assembly and its associated handling devices over the spent fuel storage portion of the spent fuel storage pool.*	13C
2.15.5a.5b	Test: The MCAE is maintained at a positive pressure of at least 3.2mm water gauge relative to the outside atmosphere with outside makeup air as specified.*	12D
2.15.5b.3	Test: Hydrogen concentration is maintained at less than 2% by volume in the battery rooms.*	12F
2.15.5b.6	Type Test (in a test facility): Fire dampers close under system air flow consitions.*	15E
2.15.5c.1-1	Inspection: As-built R/B Safety-Related Equipment HVAC System conforms with the basic configuration shown on figure 2.15.5e.	12A
2.15.5c.1-3	Type Tests/Analyses: R/B Safety-Related HVAC Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	12E
2.15.5c.1-4	Type Tests/Analyses: The Class 1E electrical equipment (including connected I&C and associated cabling, wiring, connections, lubricants, etc.) identified in the Design Description, or on accompanying figures, is qualified to withstand environmental conditions that would exist during and following a DBA without loss of safety function for the time needed to be functional.	12E
2.15.5c.2	Test: Each pump room FCU starts when a signal indicates start-up of their respective room process pump.	10D
2.15.5c.3	Test: The CAMS and SGTS room FCUs are automatically initiated upon isolation of the R/B Secondary Containment HVAC System.	10D
2.15.5c.4	Test: The FCS room FCU starts upon receipt of a signal indicating FCS start.	10D

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Targeted ITAAC Number	Description	ITAAC Family
2.15.5c.5a	Test: When a test signal is provided in only one division of HVAC at a time, the test signal exists only in the Class 1E division under test.	08C
2.15.5c.5b	Inspection: In the R/B Safety-Related Equipment HVAC System, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.15.5c.6	Inspection: Each mechanical division of the R/B Safety-Related Equipment HVAC System is physically separated from the other mechanical divisions by structural and/or fire barriers.	12A
2.15.5c.7	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.15.5.	10A
2.15.5e.1-1	Inspection: As-built R/B Safety-Related DG HVAC System conforms with the basic configuration shown on figure 2.15.5i.	12A
2.15.5e.1-3	Type Tests/Analyses: R/B Safety-Related DG HVAC Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	12E
2.15.5e.2	Test: On receipt of a DG start signal, both DG supply fans start.	10D
2.15.5e.3a	Test: When a test signal is provided in only one division of HVAC at a time, the test signal exists only in the Class 1E division under test.	08C
2.15.5e.3b	Inspection: In the R/B Safety-Related DG HVAC System, physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.15.5e.4	Inspection: Each mechanical division of the R/B Safety-Related DG HVAC System is physically separated from the other mechanical divisions by structural and/or fire barriers.	12A
2.15.5e.5	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.15.5.	10A
2.15.5f.8	Test: The secondary containment isolation dampers shown on Figure 2.15.5j fail to the closed position on loss of pneumatic pressure or loss of electric power to the valve actuating solenoids.*	12C
2.15.6.1	Inspection: The as-built configuration of the as-built FPS is in accordance with Section 2.15.6.	15A
2.15.6.2	Test: As-built fire detectors properly respond to simulated fire conditions.	15C
2.15.6.3	Test: The FPS for the Reactor and Control Buildings supplies a minimum flow as specified.	15D
2.15.6.4	Inspection: The automatic foam-water suppression systems are present and initiation logic is actuated under simulated fire conditions.	15D
2.15.6.5	Analyses: A seismic analyses report exists which concludes that as-built sprinkler systems and the standpipe systems in the Reactor and Control Buildings and the portions of the FPS water supply system identified in Figure 2.15.6 remain functional following an SSE.	15F
2.15.6.6	Inspection: The FPS is supplied with power from a non-Class 1E uninterruptible power supply.	15A
2.15.6.7	Inspection: Displays and alarms exist or can be retrieved in the MCR as defined in Section 2.15.6.	10A

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2.15.6.8	Test (at test facility): The two as-built fire water supply system pumps provide specified flow at specified pressure.	15C
2.15.6.9	Analyses: A Fire Hazards Report exists for the as-built plant and concludes that for each postulated fire, the plant can be shutdown and maintained in a safe, cold shutdown condition.	15F
2.15.10.1	Inspection: The configuration of the as-built R/B is in accordance with specified figures.	01A
2.15.10.2	Inspection: The top of the R/B basemat is located 20.2m +/- 0.3m below the finished grade elevation.	01A
2.15.10.3	Inspection: The as-installed walls, floors, doors and penetrations that form the inter-divisional boundaries and external wall penetrations to connecting tunnels have a three-hour fire rating.	15A
2.15.10.4	Inspection: The as-built R/B has walls and watertight doors as shown on specified figures.	01A
2.15.10.5	Inspection: Displays and alarms exist or can be retrieved in the MCR as defined in Section 2.15.10.	10A
2.15.10.6	Inspection: Penetrations (except for watertight doors) in the divisional walls are at least 2.5m above the floor level of -8200mm.	01A
2.15.10.7	Inspection: Except for the basement area, safety-related electrical, instrumentation, and control equipment is located at least 20cm above the floor surface.	14A
2.15.10.8a	Inspection: External walls below flood level are equal to or greater than 0.6m thick to prevent ground water seepage.	02A
2.15.10.8b	Inspection: Penetrations in the external walls below flood level are provided with flood protection features.	06A
2.15.10.8c	Inspection: Penetrations from the tunnel to the Reactor Building are watertight.	02A
2.15.10.9	Inspection: There are three divisionally separated tunnels for routing OST System piping from the fuel storage tanks to the R/B which are configured as specified. Tunnel flooding is precluded as specified.	01A
2.15.10.10	Analyses: A structural analyses report exists which concludes that the as-built R/B and oil transfer tunnels are able to withstand the structural design basis loads as defined in Section 2.15.10.	16F
2.15.10.11	Analyses: A Flood Analysis Report exists for the as-built R/B and concludes that for each postulated flooding event, the reactor can be shutdown safely and maintained in a safe, cold shutdown condition without offsite power. Report includes results of inspections of flood protection features.	16F
2.15.12.1	Inspection: The configuration of the as-built C/B is in accordance with specified figures.	01A
2.15.12.2	Inspection: The top of the C/B basemat is located 20.2m +/- 0.3m below the finished grade elevation.	01A
2.15.12.3	Inspection: The as-installed walls, floors, doors and penetrations that form the inter-divisional boundaries and external wall penetrations to connecting tunnels have a three-hour fire rating.	15A
2.15.12.4	Inspection: The as-built C/B has walls and watertight doors as shown on specified figures.	01A

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Targeted ITAAC Number	Description	ITAAC Family
2.15.12.5	Inspection: The as-built C/B has a main control area envelope separated from the rest of the C/B by walls, floors, doors, and penetrations which have a three fire rating.	15A
2.15.12.6	Inspection: Displays and alarms exist or can be retrieved in the MCR as defined in Section 2.15.12.	10A
2.15.12.7	Inspection: Except for the basemat and main control area envelope, safety-related electrical, instrumentation, and control equipment is located at least 20cm above the floor surface.	14A
2.15.12.8	Inspection: Level sensors are located in the basement area of each of the three mechanical divisions. These sensors are located no higher than 1500mm above the C/B basement floor.	10A
2.15.12.9a	Test: When a test signal is provided in only one division at a time, the test signal exists only in the Class 1E division under test.	08C
2.15.12.9b	Inspection: Physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.15.12.10a	Inspection: External walls below flood level are equal to or greater than 0.6m thick to prevent water seepage.	02A
2.15.12.10b	Inspection: Penetrations in the external walls below flood level are provided with flood protection features.	06A
2.15.12.11	Inspection: Within the C/B, the steam tunnel has no penetrations from the steam tunnel into other areas of the C/B.	02A
2.15.12.12	Inspection: The concrete thickness of the steam tunnel walls, floor and ceiling within the C/B is equal to or greater than 1.6m.	02A
2.15.12.13	Analyses: A structural analysis report exists which concludes that the as-built C/B is able to withstand the structural design basis loads as defined in Section 2.15.12.	16F
2.15.12.14	Analyses: A Flood Analysis Report exists for the as-built C/B and concludes that for each postulated flooding event, the reactor be shutdown safely and maintained in a safe, cold shutdown condition without offsite power. Report includes results of inspections of flood protection features.	16F
2.16.2.1-1	Inspection: As-built OST System conforms with the basic configuration shown on figure 2.16.2.	14A
2.16.2.1-2	Inspection: Inspections including NDE demonstrate that as-built Pressure Boundary Welds (PBW) in OST components meet ASME Section III.	03B
2.16.2.1-3	Type Tests/Analyses: OST Cat 1 equipment, including anchorage, can withstand design basis dynamic loads without loss of safety function.	14F
2.16.2.2	Test: Results of pressure test of ASME Code components conform with requirements of ASME Code, Section III.	03C
2.16.2.3	Inspection/Analysis: Each as-built DG fuel oil storage tank provides a minimum seven day fuel oil supply with its respective DG supplying its maximum LOCA load demand.	06A
2.16.2.4	Test: The as-built DG fuel oil transfer system operation occurs automatically on the day tank low level signals, and when initiated manually.	10D

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Targeted ITAAC Number	Description	ITAAC Family
2.16.2.5	Test: DG fuel oil is transferred automatically from the storage tanks to the day tanks at a rate which exceeds the DG consumption rates while supplying their maximum LOCA load demand.	06D
2.16.2.6	Inspection/Analysis: Each DG fuel oil day tank provides a minimum four day fuel oil supply with its respective DG supplying its maximum LOCA load demand.	06A
2.16.2.7	Analyses: Seismic analyses reports exist and conclude that the DG fuel oil and storage and day tanks are able to withstand Seismic loads.	16F
2.16.2.8a	Test: When a test signal is provided in only one division at a time, the test signal exists only in the Class 1E division under test.	08C
2.16.2.8b	Inspection: Physical separation or electrical isolation exists between Class 1E divisions and between Class 1E divisions and non-Class 1E equipment.	08A
2.16.2.9	Inspection: Within the Reactor Building, each mechanical division of the OST System is physically separated from the other mechanical divisions by structural and/or fire barriers.	06A
2.16.2.10	Inspection: Displays and controls exist or can be retrieved in the MCR as defined in Section 2.16.2.	10A
2.17.1.1	Inspection: The TSC and OSC are in different locations in the Service Building. The TSC is adjacent to the passage from the Service Building to the Control Building.*	18A
2.17.1.5	Test: The OSC voice communication with the MCR and TSC is audible and intelligible at each location.*	18C
3.1.2a	Inspection: The System Functional Requirements Analysis Implementation Plan shall establish the specified requirements.	16E
3.1.2b	Analysis: The system functional requirements analysis was conducted as specified.	16E
3.1.3a	Inspection: The Allocation of Function Implementation Plan shall establish the specified requirements.	16E
3.1.3b	Analysis: The functional allocation analysis shall be conducted as specified.	16E
3.1.4a	Inspection: The Task Analysis Implementation Plan shall establish the specified requirements.	16E
3.1.4b	Analysis: The task analysis was conducted as specified.	16E
3.1.5a	Inspection: The HSI Design Implementation Plan shall establish the specified requirements.	16E
3.1.5b	Inspection: The HSI design implementation and analysis were conducted as specified.	16E
3.1.6a	Inspection: The Human Factors V&V Implementation Plan shall establish the specified requirements.	16E
3.1.6b	Inspection: The human factors engineering analysis of the HSI design was conducted as specified.	16E
3.1.7	Inspection: An as-built evaluation report exists which concludes that the as-built MCR and RSS conform to the certified and validated MCR and RSS configurations, including layouts, environmental characteristics, the HSI, alarms, displays, and controls.*	16A

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Targeted ITAAC Number	Description	ITAAC Family
3.2a.1	Analyses: Maximum expected radiation dose rates in each plant area meet specified requirements.	19F
3.2a.3	Analyses: Under accident conditions, radiation shielding design allows access to occupancy and egress from areas required to maintain post-accident safety functions such that individual personnel radiation doses do not exceed specified requirements.	19F
3.2b.2	Analysis: Airborne radioactivity monitoring system shall be installed as defined in this certified design commitment.*	19A
3.3.1	Analyses: An ASME Code Certified Stress Report exists for the piping system and concludes that the design complies with the requirements of ASME Code, Section III.	16F
3.3.2	Analyses: A Pipe Break Analysis Report and Leak-Before-Break Report (if applicable) exist for the as-built plant and conclude that for each postulated piping failure, the reactor can be shut down safely and maintained in a safe, cold shutdown condition without offsite power. The Pipe Break Analysis Report includes the results of inspections of high and moderate energy pipe break mitigation features including spatial separation.	16F
3.4.2	Test: A test report exists and concludes that the SSLC design basis performance requirements were met.	10D
3.4.5a	Test: ATWS output signals occur as required for specified input signals.	10D
3.4.5b	Test: ATWS output signals occur as required for specified input signals.	10D
3.4.7	Inspection: A QA program is in place that meets specified requirements.	16E
3.4.10	Inspection: The V&V Plan meets specified requirements.	16E
3.4.11	Inspection: Software development was performed in accordance with specified requirements.	16E
3.4.12	Inspection: The EMC compliance plan met specified requirements.	16E
3.4.13	Inspection: The setpoint methodology plan meets specified requirements.	16E
3.4.14	Inspection: The I&C EQ program meets specified requirements.	16E
3.4.15	Inspection: The program for as-built verification of safety-related equipment meets specified requirements.	16E

* signify that these represent those ITAAC for which any other ITAAC from that Family could be substituted.