

**Southern Nuclear Operating Company
ND-17-xxxx
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.1.02.02a [Index Number 13]**

Proposed

ITAAC Statement

Design Commitment:

- 2.a) The components identified in Table 2.1.2-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.
- 2.b) The piping identified in Table 2.1.2-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.
- 3.a) Pressure boundary welds in components identified in Table 2.1.2-1 as ASME Code Section III meet ASME Code Section III requirements.
- 3.b) Pressure boundary welds in piping identified in Table 2.1.2-2 as ASME Code Section III meet ASME Code Section III requirements.
- 4.a) The components identified in Table 2.1.2-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.
- 4.b) The piping identified in Table 2.1.2-2 as ASME Code Section III retains its pressure boundary integrity at its design pressure.
- 5.b) Each of the lines identified in Table 2.1.2-2 for which functional capability is required is designed to withstand combined normal and seismic design basis loads without a loss of its functional capability.
6. Each of the as-built lines identified in Table 2.1.2-2 as designed for LBB meets the LBB criteria, or an evaluation is performed of the protection from the dynamic effects of a rupture of the line.

Inspections, Tests, Analyses:

Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.

Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.

A hydrostatic test will be performed on the components and piping required by the ASME Code Section III to be hydrostatically tested.

Inspection will be performed for the existence of a report verifying that the as-built piping meets the requirements for functional capability.

Inspection will be performed for the existence of an LBB evaluation report or an evaluation report on the protection from dynamic effects of a pipe break. Section 3.3, Nuclear Island Buildings, contains the design descriptions and inspections, tests, analyses, and acceptance criteria for protection from the dynamic effects of pipe rupture.

Acceptance Criteria:

The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.1.2-1 and 2.1.2-2 as ASME Code Section III.

A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

A report exists and concludes that the results of the hydrostatic test of the components and piping identified in Tables 2.1.2-1 and 2.1.2-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.

A report exists and concludes that each of the as-built lines identified in Table 2.1.2-2 for which functional capability is required meets the requirements for functional capability.

An LBB evaluation report exists and concludes that the LBB acceptance criteria are met by the as-built RCS piping and piping materials or a pipe break evaluation report exists and concludes that protection from the dynamic effects of a line break is provided.

ITAAC Completion Description

This ITAAC requires inspections and hydrostatic tests be performed and documented to ensure the as-built components and piping in the Reactor Coolant System (RCS) identified as American Society of Mechanical Engineers (ASME) Code Section III in the Combined License (COL) Appendix C, Tables 2.1.2-1 and 2.1.2-2 (Attachments A and B, respectively), are designed and constructed in accordance with applicable ASME Code Section III requirements (Reference 1).

The ASME Code Section III Design Reports referenced in the ASME N-5 Code Data Report (Reference 2) were inspected and document that the components and piping listed in Attachment A and B were designed in accordance with applicable design specifications and the requirements of ASME Code Section III 1998 edition, 2000 Addenda. Additionally, the RCS piping design requires that dynamic loads in pipe stress analysis satisfy the requirements of ASME Code Section III 1989 Edition, 1989 Addenda for girth fillet welds between piping and socket welded fittings, valves and flanges. The primary stress indices and stress intensification factors for this restriction are as shown in UFSAR Section 5.2.1.1 (Reference 3). The ASME Code Section III certified Design Reports and installation documents were inspected to confirm that the Design Reports comply with the respective design specifications and ASME Code Section III and meet the requirements of NCA-3550 for the Design Reports.

The results of non-destructive examinations (NDE) inspections of the pressure boundary welds of the components are in the Quality Assurance Data Packages (QADPs) for the components identified in Attachment A. The results of the NDE inspections of the pressure boundary welds of the piping identified in Attachment B are in the system NDE reports. The ASME N-5 Code Data Reports for components and piping identified in Attachment A and B were inspected and confirmed to meet the pressure boundary weld requirements of ASME Code Section III (1998 Edition, 2000 Addenda) and verify no unacceptable indications present.

Reports of results of manufacturer's hydrostatic tests of components are provided in the QADPs for the components required to be hydrostatically tested as identified in Attachment A. Reports of results of hydrostatic tests of the piping system (including installed components) required to be

hydrostatically tested as identified in Attachment B are in the system hydrostatic test reports. The ASME N-5 Code Data Reports for components and piping required to be hydrostatically tested as identified in Attachment A and B (Reference 2) exist and conclude hydrostatic tests were conducted and comply with the requirements of ASME Code Section III (1998 Edition, 2000 Addenda) and verify no pressure boundary leakage.

An inspection was performed for the existence of a report verifying that the as-built lines identified in Table 2.1.2-2 (Attachment B) for which functional capability is required meet the requirements for functional capability and for lines designed for Leak Before Break (LBB) meet LBB criteria as described in the applicable piping design specification (Reference 6).

A report exists and concludes that each of the as-built lines identified in Table 2.1.2-2 (Attachment B) for which functional capability is required meets the requirements for functional capability (Reference 4) and the as-built lines designed for LBB meets LBB requirements (Reference 5) and have been reconciled to the as-designed piping stress analyses for the RCS.

Following fabrication of the system in its final location at the plant, quality inspections, NDE and hydrostatic tests were performed in accordance with the site ASME quality assurance program to identify and reconcile any deviations from the design specifications. The ASME N-5 Code Data report, Functional Capability Report, and LBB reports are approved after all deviations are reconciled to demonstrate the as-built system has been designed and constructed in accordance with the design specifications. Design reconciliation of the as-built system, including installed components, validates that construction completion, including field changes and any nonconforming condition dispositions, is consistent with and bounded by the approved design.

Together these reports conclude that the ASME Code Section III requirements for design reports, NDE and hydrostatic testing, along with RCS piping design specification requirements for functional capability and LBB requirements for as-built RCS components and piping are met and satisfy the ITAAC Acceptance Criteria.

List of ITAAC Findings

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings and associated corrective actions. This review, which included now-consolidated ITAAC Indexes 14, 15, 16, 17, 18, 22 and 23, found no relevant ITAAC findings associated with this ITAAC and is documented in the Vogtle Unit 3 ITAAC Completion Package for ITAAC 2.1.02.02a (Reference 7) and available for NRC review.

References (available for NRC inspection)

1. VEGP 3&4 Updated Final Safety Analysis Report Section 5.2.1 - requirements as described in American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Compliance with Codes and Code Cases
2. ASME N-5 Code Data Reports (List)
3. VEGP UFSAR Section 5.2.1.1
4. Functional Capability Report (Report Number xxx)

5. Leak Before Break Report (Report Number yyy)
6. APP-PL02-Z0-001, Piping Class Sheets and Standard Details
7. Completion Package for Unit 3 ITAAC 2.1.02.02a [COL Index Number 13]

Proposed

Attachment A

SYSTEM: Reactor coolant System (RCS)

Excerpts from COL Appendix C Tables 2.1.2-1*

Equipment Name *	Tag No. *	ASME Code Section III	Report
Steam Generator 1	RCS-MB-01	Yes	RCS N-5 Code Data Report SV3-RCS-x
Steam Generator 2	RCS-MB-02	Yes	RCS N-5 Code Data Report SV3-RCS-x
RCP 1A	RCS-MP-01A	Yes	RCS N-5 Code Data Report SV3-RCS-x
RCP 1B	RCS-MP-01B	Yes	RCS N-5 Code Data Report SV3-RCS-x
RCP 2A	RCS-MP-02A	Yes	RCS N-5 Code Data Report SV3-RCS-x
RCP 2B	RCS-MP-02B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Pressurizer	RCS-MV-02	Yes	RCS N-5 Code Data Report SV3-RCS-x
Automatic Depressurization System (ADS) Sparger A	PXS-MW-01A	Yes	RCS N-5 Code Data Report SV3-RCS-x
ADS Sparger B	PXS-MW-01B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Pressurizer Safety Valve	RCS-PL-V005A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Pressurizer Safety Valve	RCS-PL-V005B	Yes	RCS N-5 Code Data Report SV3-RCS-x
First-stage ADS Motor-operated Valve (MOV)	RCS-PL-V001A	Yes	RCS N-5 Code Data Report SV3-RCS-x
First-stage ADS MOV	RCS-PL-V001B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Second-stage ADS MOV	RCS-PL-V002A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Second-stage ADS MOV	RCS-PL-V002B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Third-stage ADS MOV	RCS-PL-V003A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Third-stage ADS MOV	RCS-PL-V003B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Fourth-stage ADS Squib Valve	RCS-PL-V004A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Fourth-stage ADS Squib Valve	RCS-PL-V004B	Yes	RCS N-5 Code Data Report SV3-RCS-x

Equipment Name *	Tag No. *	ASME Code Section III	Report
Fourth-stage ADS Squib Valve	RCS-PL-V004C	Yes	RCS N-5 Code Data Report SV3-RCS-x
Fourth-stage ADS Squib Valve	RCS-PL-V004D	Yes	RCS N-5 Code Data Report SV3-RCS-x
ADS Discharge Header A Vacuum Relief Valve	RCS-PL-V010A	Yes	RCS N-5 Code Data Report SV3-RCS-x
ADS Discharge Header B Vacuum Relief Valve	RCS-PL-V010B	Yes	RCS N-5 Code Data Report SV3-RCS-x
First-stage ADS Isolation MOV	RCS-PL-V011A	Yes	RCS N-5 Code Data Report SV3-RCS-x
First-stage ADS Isolation MOV	RCS-PL-V011B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Second-stage ADS Isolation MOV	RCS-PL-V012A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Second-stage ADS Isolation MOV	RCS-PL-V012B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Third-stage ADS Isolation MOV	RCS-PL-V013A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Third-stage ADS Isolation MOV	RCS-PL-V013B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Fourth-stage ADS MOV	RCS-PL-V014A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Fourth-stage ADS MOV	RCS-PL-V014B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Fourth-stage ADS MOV	RCS-PL-V014C	Yes	RCS N-5 Code Data Report SV3-RCS-x
Fourth-stage ADS MOV	RCS-PL-V014D	Yes	RCS N-5 Code Data Report SV3-RCS-x
Reactor Vessel Head Vent Valve	RCS-PL-V150A	Yes	RCS N-5 Code Data Report SV3-RCS-x
Reactor Vessel Head Vent Valve	RCS-PL-V150B	Yes	RCS N-5 Code Data Report SV3-RCS-x
Reactor Vessel Head Vent Valve	RCS-PL-V150C	Yes	RCS N-5 Code Data Report SV3-RCS-x
Reactor Vessel Head Vent Valve	RCS-PL-V150D	Yes	RCS N-5 Code Data Report SV3-RCS-x

Attachment B

SYSTEM: Reactor coolant System (RNS)

Excerpts from COL Appendix C Tables 2.1.2-2*

Line Name	Line Number	ASME Code Section III	Leak Before Break	Functional Capability Required
Hot Legs	RCS-L001A RCS-L001B	Yes	Yes	Yes
Cold Legs	RCS-L002A RCS-L002B RCS-L002C RCS-L002D	Yes	Yes	Yes
Pressurizer Surge Line	RCS-L003	Yes	Yes	Yes
ADS Inlet Headers	RCS-L004A/B RCS-L006A/B RCS-L030A/B RCS-L020A/B	Yes	Yes	Yes
Safety Valve Inlet Piping	RCS-L005A RCS-L005B	Yes	Yes	Yes
Safety Valve Discharge Piping	RCS-L050A/B RCS-L051A/B	Yes	No	Yes
	RCS-L064A/B	Yes	No	No
ADS First-stage Valve Inlet Piping	RCS-L010A/B RCS-L011A/B	Yes	No	Yes
ADS Second-stage Valve Inlet Piping	RCS-L021A/B RCS-L022A/B	Yes	Yes No	Yes
ADS Third-stage Valve Inlet Piping	RCS-L131 RCS-L031A/B RCS-L032A/B	Yes	Yes Yes No	Yes
ADS Outlet Piping	RCS-L012A/B RCS-L023A/B RCS-L033A/B RCS-L061A/B RCS-L063A/B RCS-L200 RCS-L069A/B PXS-L130A/B	Yes	No	Yes
	RCS-L240A/B	Yes	No	No

Attachment B

SYSTEM: Reactor coolant System (RNS)

Excerpts from COL Appendix C Tables 2.1.2-2*

Line Name	Line Number	ASME Code Section III	Leak Before Break	Functional Capability Required
ADS Fourth-stage Inlet Piping	RCS-L133A/B RCS-L135A/B RCS-L136A/B RCS-L137A/B	Yes	Yes	Yes
Pressurizer Spray Piping	RCS-L106 RCS-L110A/B RCS-L212A/B RCS-L213 RCS-L215	Yes	No	No
RNS Suction Piping	RCS-L139 RCS-L140	Yes	Yes	No
CVS Purification Piping	RCS-L111 RCS-L112	Yes	No	No

**Southern Nuclear Operating Company
ND-17-xxxx
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.1.02.05a.i [Index Number 19]**

Proposed

ITAAC Statement

Design Commitment

5.a) The seismic Category I equipment identified in Table 2.1.2-1 can withstand seismic design basis loads without loss of safety function.

7.a) The Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

Inspections, Tests, Analyses

i) Inspection will be performed to verify that the seismic Category I equipment and valves identified in Table 2.1.2-1 are located on the Nuclear Island.

ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.

iii) Inspection will be performed for the existence of a report verifying that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

i) Type tests, analyses, or a combination of type tests and analyses will be performed on Class 1E equipment located in a harsh environment.

ii) Inspection will be performed of the as-built Class 1E equipment and the associated wiring, cables, and terminations located in a harsh environment.

Acceptance Criteria

i) The seismic Category I equipment identified in Table 2.1.2-1 is located on the Nuclear Island.

ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.

iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

i) A report exists and concludes that the Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

ii) A report exists and concludes that the as-built Class 1E equipment and the associated wiring, cables, and terminations identified in Table 2.1.2-1 as being qualified for a harsh environment are bounded by type tests, analyses, or a combination of type tests and analyses.

ITAAC Determination Basis

This ITAAC requires that inspections, tests, and analyses be performed and documented to ensure the Reactor Coolant System (RCS) components identified as seismic Category I or Class 1E in the Combined License (COL) Appendix C, Table 2.1.2-1 (Table) are designed and constructed in accordance with applicable requirements.

i) The seismic Category I equipment identified in Table 2.1.2-1 is located on the Nuclear Island.

To assure that seismic Category I components can withstand seismic design basis loads without loss of safety function, all the components in the Table are designed to be located on the seismic Category I Nuclear Island. In accordance with Equipment Qualification (EQ) Walkdown ITAAC Guideline (Reference 1), an inspection was conducted of the RCS to confirm the satisfactory installation of the seismically qualified components. The inspection included verification of equipment make/model/serial number and verification of equipment location (Building, Elevation, Room). The EQ As-Built Reconciliation Reports (EQRR) (Reference 2) identified in Attachment A document the results of the inspection and conclude that the seismic Category I components are located on the Nuclear Island.

ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.

Seismic Category I components in the Table require type tests and/or analyses to demonstrate structural integrity and operability. Structural integrity of the seismic Category I valves, as well as other passive seismic Category I mechanical equipment, was demonstrated by analysis in accordance with American Society of Mechanical Engineers (ASME) Code Section III (Reference 3). Functionality of the subset of active safety-related valves under seismic loads was determined using the guidance of ASME QME-1-2007 (Reference 4).

Safety-related (Class 1E) electrical equipment in the Table was seismically qualified by type testing combined with analysis in accordance with Institute of Electrical and Electronics Engineers (IEEE) Standard 344-1987 (Reference 5). This equipment includes safety-related (Class 1E) field sensors and the safety-related active valve accessories such as electric actuators, position switches, pilot solenoid valves and electrical connector assemblies. The specific qualification method (i.e., type testing, analysis, or combination) used for each component in the Table is identified in Attachment A. Additional information about the methods used to qualify AP1000 safety-related equipment is provided in the Updated Final Safety Analysis Report (UFSAR) Appendix 3D (Reference 6). The EQ Reports (Reference 7) identified in Attachment A contain applicable test reports and associated documentation and conclude that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.

iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

An inspection was conducted to confirm the satisfactory installation of the seismically qualified components in the Table. The inspection verified the equipment make/model/serial number, as-designed equipment mounting orientation, anchorage and clearances, and electrical and other interfaces. The documentation of installed configuration of seismically qualified components includes photographs and/or sketches/drawings of equipment/mounting/interfaces.

As part of the seismic qualification program, consideration is given to the definition of the clearances needed around the equipment mounted in the plant to permit the equipment to move during a postulated seismic event without causing impact between adjacent pieces of safety related equipment. This is done as part of seismic testing by measuring the maximum dynamic relative displacement of the top and bottom of the equipment. EQ Reports (Reference 7) identify the equipment mounting employed for qualification and establish interface requirements for assuring that subsequent in-plant installation does not degrade the established qualification. Interface requirements are defined based on the test configuration and other design requirements.

Attachment A identifies the EQRR (Reference 2) completed to verify that the as-built seismic Category I equipment listed in the Table, including anchorage, are seismically bounded by the tested or analyzed conditions, IEEE Standard 344-1987 (Reference 5), and NRC Regulatory Guide (RG) 1.100, Rev. 2 (Reference 8).

i) A report exists and concludes that the Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

The harsh environment Class 1E components in the Table are qualified by type testing and/or analyses. Class 1E electrical component type testing was performed in accordance with IEEE Standard 323-1974 (Reference 9) and RG 1.89 (Reference 10), to meet the requirements of 10 CFR 50.49. Type testing of safety-related equipment meets the requirements of 10 CFR Part 50, Appendix A, General Design Criterion 4. Attachment A identifies the EQ program and specific qualification method for each safety-related mechanical or Class 1E electrical component located in a harsh environment. Additional information about the methods used to qualify AP1000 safety-related equipment is provided in the UFSAR Appendix 3D (Reference 6). EQ Reports (Reference 7) identified in Attachment A contain applicable test reports and associated documentation and conclude that the equipment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

ii) A report exists and concludes that the as-built Class 1E equipment and the associated wiring, cables, and terminations identified in Table 2.1.2-1 as being qualified for a harsh environment are bounded by type tests, analyses, or a combination of type tests and analyses.

An inspection was conducted of the RCS to confirm the satisfactory installation of the Class 1E components in the Table. The inspection verified the equipment location, make/model/serial number, as-designed equipment mounting, wiring, cables, and terminations and confirm that the environmental conditions for the zone (Attachment A) in which the component is mounted are bounded by the tested and/or analyzed conditions. It also documents the installed configuration with photographs or sketches/drawings of equipment mounting and connections. The EQRR (Reference 2) identified in Attachment A document this inspection and conclude that the as-built harsh environment Class 1E equipment and the associated wiring, cables, and terminations are bounded by the qualified configuration and IEEE Standard 323-1974 (Reference 9).

Together, these reports (References 2 and 7) provide evidence that the ITAAC Acceptance Criteria requirements are met:

- The equipment identified in Table 2.1.2-1 as seismic Category I is located on the Nuclear Island;
- A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function;
- A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions;
- A report exists and concludes that the Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function; and
- A report exists and concludes that the as-built Class 1E equipment and the associated wiring, cables, and terminations identified in Table 2.1.2-1 as being qualified for a harsh environment are bounded by type tests, analyses, or a combination of type tests and analyses.

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This finding review, which included now-consolidated ITAAC Indexes 20, 21, 24, and 25, found no relevant ITAAC findings associated with this ITAAC. The ITAAC finding review is documented in the ITAAC 2.1.02.05a.i Completion Package (Reference 11) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.1.02.05a.i was performed for Vogtle Unit 3 and that the prescribed acceptance criteria are met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

1. ND-xx-xx-001, "EQ Walkdown ITAAC Guideline"
2. EQ Reconciliation Reports as identified in Attachment A
3. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section III, "Rules for Construction of Nuclear Power Plant Components," 1998 Edition with 2000 Addenda
4. ASME QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants," The American Society of Mechanical Engineers, June 2007

5. IEEE Standard 344-1987, "Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations"
6. Vogtle 3&4 Updated Final Safety Analysis Report Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment"
7. Equipment Qualification Reports as identified in Attachment A
8. Regulatory Guide 1.100, Rev. 2, "Seismic Qualification of Electric and Mechanical Equipment for Nuclear Power Plants"
9. IEEE Standard 323-1974, "IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations"
10. Regulatory Guide 1.89, Rev 1, "Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants"
11. ITAAC 2.1.02.05a.i (19) Completion Package, Unit 3

Attachment A

System: Reactor Coolant System (RCS)

Excerpt from COL Appendix C Table 2.1.2-1*

Equipment Name ⁺	Tag No. ⁺	Seismic Cat. I ⁺	Class 1E/ Harsh Envir. Qual ⁺³	Envir. Zone ¹	Envir Qual Program ²	Type of Qual.	EQ Reports (Reference 2)	As-Built EQRR (Reference 7)
Steam Generator 1	RCS-MB-01	Yes	-/-	N/A	N/A	Analysis	APP-MB01-Z0R-100	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Steam Generator 2	RCS-MB-02	Yes	-/-	N/A	N/A	Analysis	APP-MB01-Z0R-100	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1A	RCS-MP-01A	Yes	No/No	N/A	N/A	Analysis	APP-MP01-S2R-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1B	RCS-MP-01B	Yes	No/No	N/A	N/A	Analysis	APP-MP01-S2R-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2A	RCS-MP-02A	Yes	No/No	N/A	N/A	Analysis	APP-MP01-S2R-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2B	RCS-MP-02B	Yes	No/No	N/A	N/A	Analysis	APP-MP01-S2R-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer	RCS-MV-02	Yes	No/No (heaters)	N/A	N/A	Analysis	APP-MV20-Z0R-101	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Automatic Depressurization System (ADS) Sparger A	PXS-MW-01A	Yes	-/-	N/A	N/A	Analysis	APP-MW01-Z0C-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
ADS Sparger B	PXS-MW-01B	Yes	-/-	N/A	N/A	Analysis	APP-MW01-Z0C-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Safety Valve	RCS-PL-V005A	Yes	-/-	N/A	N/A	Analysis	APP-PV62-VBR-002 / APP-PV62-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Safety Valve	RCS-PL-V005B	Yes	-/-	N/A	N/A	Analysis	APP-PV62-VBR-002 / APP-PV62-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
First-stage ADS Motor-operated Valve (MOV)	RCS-PL-V001A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-014 / APP-PV01-VBR-013	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
First-stage ADS MOV	RCS-PL-V001B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-014 / APP-PV01-VBR-013	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Second-stage ADS MOV	RCS-PL-V002A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-014 / APP-PV01-VBR-013	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0

Equipment Name ⁺	Tag No. ⁺	Seismic Cat. I ⁺	Class 1E/ Harsh Envir. Qual ⁺³	Envir. Zone ¹	Envir Qual Program ²	Type of Qual.	EQ Reports (Reference 2)	As-Built EQRR (Reference 7)
Second-stage ADS MOV	RCS-PL-V002B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-014 / APP-PV01-VBR-013	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Third-stage ADS MOV	RCS-PL-V003A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-014 / APP-PV01-VBR-013	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Third-stage ADS MOV	RCS-PL-V003B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-014 / APP-PV01-VBR-013	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Fourth-stage ADS Squib Valve	RCS-PL-V004A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV70-VBR-005 / APP-PV70-VBR-004	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Fourth-stage ADS Squib Valve	RCS-PL-V004B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV70-VBR-005 / APP-PV70-VBR-004	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Fourth-stage ADS Squib Valve	RCS-PL-V004C	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV70-VBR-005 / APP-PV70-VBR-004	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Fourth-stage ADS Squib Valve	RCS-PL-V004D	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV70-VBR-005 / APP-PV70-VBR-004	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
ADS Discharge Header A Vacuum Relief Valve	RCS-PL-V010A	Yes	Yes/Yes	1	M * S	Type Testing & Analysis	APP-PV18-VBR-002 / APP-PV18-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
ADS Discharge Header B Vacuum Relief Valve	RCS-PL-V010B	Yes	Yes/Yes	1	M *	Type Testing & Analysis	APP-PV18-VBR-002 / APP-PV18-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
First-stage ADS Isolation MOV	RCS-PL-V011A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
First-stage ADS Isolation MOV	RCS-PL-V011B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Second-stage ADS Isolation MOV	RCS-PL-V012A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Second-stage ADS Isolation MOV	RCS-PL-V012B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Third-stage ADS Isolation MOV	RCS-PL-V013A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Third-stage ADS Isolation MOV	RCS-PL-V013B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Fourth-stage ADS MOV	RCS-PL-V014A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Fourth-stage ADS MOV	RCS-PL-V014B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0

Equipment Name ⁺	Tag No. ⁺	Seismic Cat. I ⁺	Class 1E/ Harsh Envir. Qual ⁺³	Envir. Zone ¹	Envir Qual Program ²	Type of Qual.	EQ Reports (Reference 2)	As-Built EQRR (Reference 7)
Fourth-stage ADS MOV	RCS-PL-V014C	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Fourth-stage ADS MOV	RCS-PL-V014D	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV01-VBR-012 / APP-PV01-VBR-011	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Reactor Vessel Head Vent Valve	RCS-PL-V150A	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV13-VBR-002 / APP-PV13-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Reactor Vessel Head Vent Valve	RCS-PL-V150B	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV13-VBR-002 / APP-PV13-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Reactor Vessel Head Vent Valve	RCS-PL-V150C	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV13-VBR-002 / APP-PV13-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Reactor Vessel Head Vent Valve	RCS-PL-V150D	Yes	Yes/Yes	1	M E * S	Type Testing & Analysis	APP-PV13-VBR-002 / APP-PV13-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Flow Sensor	RCS-101A	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Flow Sensor	RCS-101B	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Flow Sensor	RCS-101C	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Flow Sensor	RCS-101D	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Flow Sensor	RCS-102A	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Flow Sensor	RCS-102B	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Flow Sensor	RCS-102C	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Flow Sensor	RCS-102D	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 1A Narrow Range Temperature Sensor	RCS-121A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 1B Narrow Range Temperature Sensor	RCS-121B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 1B Narrow Range Temperature Sensor	RCS-121C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0

Equipment Name ⁺	Tag No. ⁺	Seismic Cat. I ⁺	Class 1E/ Harsh Envir. Qual ⁺³	Envir. Zone ¹	Envir Qual Program ²	Type of Qual.	EQ Reports (Reference 2)	As-Built EQRR (Reference 7)
RCS Cold Leg 1A Narrow Range Temperature Sensor	RCS-121D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 2B Narrow Range Temperature Sensor	RCS-122A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 2A Narrow Range Temperature Sensor	RCS-122B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 2A Narrow Range Temperature Sensor	RCS-122C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 2B Narrow Range Temperature Sensor	RCS-122D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 1A Dual Range Temperature Sensor	RCS-125A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 2A Dual Range Temperature Sensor	RCS-125B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 1B Dual Range Temperature Sensor	RCS-125C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Cold Leg 2B Dual Range Temperature Sensor	RCS-125D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Narrow Range Temperature Sensor	RCS-131A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Narrow Range Temperature Sensor	RCS-131B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Narrow Range Temperature Sensor	RCS-131C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Narrow Range Temperature Sensor	RCS-131D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Narrow Range Temperature Sensor	RCS-132A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Narrow Range Temperature Sensor	RCS-132B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Narrow Range Temperature Sensor	RCS-132C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Narrow Range Temperature Sensor	RCS-132D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0

Equipment Name ⁺	Tag No. ⁺	Seismic Cat. I ⁺	Class 1E/ Harsh Envir. Qual ⁺³	Envir. Zone ¹	Envir Qual Program ²	Type of Qual.	EQ Reports (Reference 2)	As-Built EQRR (Reference 7)
RCS Hot Leg 1 Narrow Range Temperature Sensor	RCS-133A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Narrow Range Temperature Sensor	RCS-133B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Narrow Range Temperature Sensor	RCS-133C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Narrow Range Temperature Sensor	RCS-133D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Wide Range Temperature Sensor	RCS-135A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Wide Range Temperature Sensor	RCS-135B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Wide Range Pressure Sensor	RCS-140A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Wide Range Pressure Sensor	RCS-140B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Wide Range Pressure Sensor	RCS-140C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Wide Range Pressure Sensor	RCS-140D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 1 Level Sensor	RCS-160A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCS Hot Leg 2 Level Sensor	RCS-160B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Passive Residual Heat Removal (PRHR) Return Line Temperature Sensor	RCS-161	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Pressure Sensor	RCS-191A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Pressure Sensor	RCS-191B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Pressure Sensor	RCS-191C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0

Equipment Name ⁺	Tag No. ⁺	Seismic Cat. I ⁺	Class 1E/ Harsh Envir. Qual ⁺³	Envir. Zone ¹	Envir Qual Program ²	Type of Qual.	EQ Reports (Reference 2)	As-Built EQRR (Reference 7)
Pressurizer Pressure Sensor	RCS-191D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Reference Leg Temperature Sensor	RCS-193A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Reference Leg Temperature Sensor	RCS-193B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Reference Leg Temperature Sensor	RCS-193C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Reference Leg Temperature Sensor	RCS-193D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE53-VBR-002 / APP-JE53-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Sensor	RCS-195A	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Sensor	RCS-195B	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Sensor	RCS-195C	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
Pressurizer Level Sensor	RCS-195D	Yes	Yes/Yes	1	E * S	Type Testing & Analysis	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1A Bearing Water Temperature Sensor	RCS-211A	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1A Bearing Water Temperature Sensor	RCS-211B	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1A Bearing Water Temperature Sensor	RCS-211C	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1A Bearing Water Temperature Sensor	RCS-211D	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1B Bearing Water Temperature Sensor	RCS-212A	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1B Bearing Water Temperature Sensor	RCS-212B	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1B Bearing Water Temperature Sensor	RCS-212C	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1B Bearing Water Temperature Sensor	RCS-212D	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0

Equipment Name ⁺	Tag No. ⁺	Seismic Cat. I ⁺	Class 1E/ Harsh Envir. Qual ⁺³	Envir. Zone ¹	Envir Qual Program ²	Type of Qual.	EQ Reports (Reference 2)	As-Built EQRR (Reference 7)
RCP 2A Bearing Water Temperature Sensor	RCS-213A	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2A Bearing Water Temperature Sensor	RCS-213B	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2A Bearing Water Temperature Sensor	RCS-213C	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2A Bearing Water Temperature Sensor	RCS-213D	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2B Bearing Water Temperature Sensor	RCS-214A	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2B Bearing Water Temperature Sensor	RCS-214B	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2B Bearing Water Temperature Sensor	RCS-214C	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2B Bearing Water Temperature Sensor	RCS-214D	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-MP01-VBR-002 / APP-MP01-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1A Pump Speed Sensor	RCS-281	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE62-VBR-002 / APP-JE62-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 1B Pump Speed Sensor	RCS-282	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE62-VBR-002 / APP-JE62-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2A Pump Speed Sensor	RCS-283	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE62-VBR-002 / APP-JE62-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0
RCP 2B Pump Speed Sensor	RCS-284	Yes	Yes/Yes	1	E *	Type Testing & Analysis	APP-JE62-VBR-002 / APP-JE62-VBR-001	2.1.02.05a.i-U3-EQRR-PCDXXX-Rev 0

Notes:

1. See Table 3D.5-1 of UFSAR
2. E = Electrical Equipment Program (limit switch and the motor operator, squib operator, solenoid operator)
 M = Mechanical Equipment Program (valve)
 S = Qualified for submergence or operation with spray
 * = Harsh Environment
3. Dash (-) indicates not applicable