

Example D44 - Seismic Qualification ITAAC Closure Notification

XX/YY/ZZZZ (Date)

To: NRC

From: {Name of Licensee}
{Site Name and Unit #}
{Docket #}

Subject: Completion of ITAAC 2.2 02.05a.ii

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) in accordance with 10 CFR 52.99(c)(1) of the completion of {Site Name and Unit #} Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.2 02.05a.ii for verification that a report exists and concludes that the seismic Category I components in the Passive Containment Cooling System can withstand seismic design basis loads without loss of safety function. The closure process for this ITAAC is based on the guidance described in NEI 08-01 (Reference 1).

ITAAC Statement

Design Commitment:

The seismic Category I components identified in Table 2.2.2-1 can withstand seismic design basis loads without loss of safety function.

Inspections, Tests, Analyses:

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

Acceptance Criteria:

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

ITAAC Determination Basis

Multiple ITAAC are performed to demonstrate that the seismic Category I components identified in Design Control Document (DCD) Table 2.2.2-1 can withstand seismic design basis loads without loss of safety function. The subject ITAAC requires type tests, analyses, or a combination of type tests and analyses to be performed on seismic Category I components identified in DCD Table 2.2.2-1.

The seismic Category I valves listed in Design Control Document Table 2.2.2-1 were qualified using a combination of tests and analyses to demonstrate structural integrity and operability. Structural integrity of all of the seismic Category I valves was demonstrated by analysis in accordance with American Society of Mechanical Engineers Boiler and Pressure Vessel (B&PV) Code Section III, Rules for Construction of Nuclear Power Plant Components (Reference 6). For the subset of active safety-related valves identified in DCD Table 2.2.2-1, functionality of the active valves under seismic loads was accomplished by using the guidance of ASME QME-1-2007 (Reference 7).

Tanks and other passive seismic Category I mechanical equipment identified in DCD Table 2.2.2-1 were qualified by analysis to demonstrate structural integrity in accordance with ASME B&PV Code, Section III (Reference 6).

Safety-related (Class 1E) electrical equipment identified in DCD Table 2.2.2-1 was seismically qualified by testing combined with analysis in accordance with IEEE Std 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 DCD Table 2.2.2-1 is identified in Attachment A. Additional information about the methods used to qualify safety-related equipment supplied for the AP1000 is provided in AP1000 DCD Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment", (Reference 4).

Equipment Qualification Data Packages (EQDPs) XXX (Reference 3) are identified in Attachment A for each seismic Category I component and are included in the ITAAC Completion Package (Reference 2). These EQDPs contain applicable test reports and associated documentation and conclude that the components identified in DCD Table 2.2.2-1 can withstand seismic design basis loads without loss of safety function.

ITAAC Finding Review

In accordance with XXX-XXX-XXX (project specific procedure for ITAAC completion), {Licensee} performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found that there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.2 02.05a.ii (Reference 2) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, [Licensee] hereby notifies the NRC that ITAAC 2.2 02.05a.ii was performed for Plant/Unit XYZ, 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.

We request NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact XXX at xxx-xxx-xxxx.

Sincerely,

{Signature of Licensee Representative}
{Typed Name of Licensee Representative}
{Title of Licensee Representative}

References (available for NRC inspection)

1. NEI 08-01, Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52.
2. ITAAC 2.2 02.05a.ii Completion Package
3. Equipment Qualification Document Packages (EQDPs) XXX
4. APP-GW-GL-700 – AP1000 Design Control Document, Appendix 3D
5. IEEE 344-1987, Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations
6. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section III, Rules for Construction of Nuclear Power Plant Components. [Indicate Code Edition/date]
7. ASME QME-1-2007, “Qualification of Active Mechanical Equipment Used in Nuclear Power Plants,” The American Society of Mechanical Engineers, June 2007

Attachment A

EQUIPMENT QUALIFICATION ITAAC COMPLIANCE TABLE

SYSTEM: PASSIVE CONTAINMENT COOLING SYSTEM

Equipment Name	Tag Number	ASME Code Section III	Seismic Cat. I	Type of Qualification	EQDP Report Number
PCCWST	PCS-MT-01	Yes	Yes	Analysis	EQDP CB20
Water Distribution Bucket	PCS-MT-03	Yes	Yes	Analysis	EQDP MT05
Water Distribution Wiers	PCS-MT-04	Yes	Yes	Analysis	EQDP MT05
PCCWST Isolation Valve	PCS-PL-V001A	Yes	Yes	Type Test/Analysis	EQDP PV11
PCCWST Isolation Valve	PCS-PL-V001B	Yes	Yes	Type Test/Analysis	EQDP PV11
PCCWST Isolation Valve	PCS-PL-V001C	Yes	Yes	Type Test/Analysis	EQDP PV01
PCCWST Isolation Block MOV	PCS-PL-V002A	Yes	Yes	Type Test/Analysis	EQDP PV01
PCCWST Isolation Block MOV	PCS-PL-V002B	Yes	Yes	Type Test/Analysis	EQDP PV01
PCCWST Isolation Block MOV	PCS-PL-V002C	Yes	Yes	Type Test/Analysis	EQDP PV01
PCS Recirculation Return Isolation Valve	PCS-PL-V023	Yes	Yes	Type Test/Analysis	EQDP PV10
PCCWST Supply to Fire Protection System Isolation Valve	PCS-PL-V005	Yes	Yes	Type Test/Analysis	EQDP PV03
PCS Makeup to SFS Isolation Valve	PCS-PL-V009	Yes	Yes	Type Test/Analysis	EQDP PV03
Water Makeup Isolation Valve	PCS-PL-V044	Yes	Yes	Type Test/Analysis	EQDP PV03
Water Bucket Makeup Line Drain Valve	PCS-PL-V015	Yes	Yes	Type Test/Analysis	EQDP PV02
Water Bucket Makeup Line Isolation Valve	PCS-PL-V020	Yes	Yes	Type Test/Analysis	EQDP PV03
PCCWST Long-Term Makeup Line Check Valve	PCS-PL-V039	Yes	Yes	Type Test/Analysis	EQDP PV03
PCCWST Long-Term Makeup Drain Isolation	PCS-PL-V042	Yes	Yes	Type Test/Analysis	EQDP PV02
PCS Discharge to SFS Pool Isolation Valve	PCS-PL-V045	Yes	Yes	Type Test/Analysis	EQDP PV02

Equipment Name	Tag Number	ASME Code Section III	Seismic Cat. I	Type of Qualification	EQDP Report Number
Recirc Header Discharge to PCCWST Isolation Valve	PCS-PL-V046	Yes	Yes	Type Test/Analysis	EQDP PV03
PCCWST Drain Isolation Valve	PCS-PL-V049	Yes	Yes	Type Test/Analysis	EQDP PV02
Recirc Header Discharge to SFS Pool Isolation Valve	PCS-PL-V050	Yes	Yes	Type Test/Analysis	EQDP PV02
PCCWST Discharge to SFS Pool Isolation Valve	PCS-PL-V051	Yes	Yes	Type Test/Analysis	EQDP PV02
PCS Water Delivery Flow Sensor	PCS-001	-	Yes	Type Test/Analysis	EQDP C1E
PCS Water Delivery Flow Sensor	PCS-002	-	Yes	Type Test/Analysis	EQDP C1E
PCS Water Delivery Flow Sensor	PCS-003	-	Yes	Type Test/Analysis	EQDP C1E
PCS Water Delivery Flow Sensor	PCS-004	-	Yes	Type Test/Analysis	EQDP C1E
Containment Pressure Sensor	PCS-005	-	Yes	Type Test/Analysis	EQDP C1E
Containment Pressure Sensor	PCS-006	-	Yes	Type Test/Analysis	EQDP C1E
Containment Pressure Sensor	PCS-007	-	Yes	Type Test/Analysis	EQDP C1E
Containment Pressure Sensor	PCS-008	-	Yes	Type Test/Analysis	EQDP C1E
PCCWST Water Level Sensor	PCS-010	-	Yes	Type Test/Analysis	EQDP C1E
PCCWST Water Level Sensor	PCS-011	-	Yes	Type Test/Analysis	EQDP C1E
High-range Containment Pressure Sensor	PCS-012	-	Yes	Type Test/Analysis	EQDP C1E
High-range Containment Pressure Sensor	PCS-013	-	Yes	Type Test/Analysis	EQDP C1E
High-range Containment Pressure Sensor	PCS-014	-	Yes	Type Test/Analysis	EQDP C1E