Sample ITAAC Closure Letter

XX/YY/ZZZZ (Date)

To: NRC

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

Subject: Completion of ITAAC Item 3.7-3, #1

The purpose of this letter is to notify the NRC of the completion of {Site Name and Unit #(s)} Inspection, Test, Analysis, and Acceptance Criteria (ITAAC) Item 3.7-3, #1 for the Design Reliability Assurance Program (D-RAP), in accordance with 10 CFR 52.99(c)(1). The closure process for this ITAAC is based on the guidance described in NEI-08-XX.

ITAAC Statement

Design Commitment

The D-RAP provides reasonable assurance that the design of risk-significant SSCs is consistent with their risk analysis assumptions.

Inspection/Test/Analysis

Inspection will be performed for the existence of a report which establishes the estimated reliability of as-built risk-significant SSCs.

Acceptance Criteria

A report exists and concludes that the estimated reliability of each as-built component identified in Table 3.7-1 [of the Tier 1 Material of the AP1000 Design Certification Document] is at least equal to the assumed reliability and that industry experience including operations, maintenance, and monitoring activities were assessed in estimating the reliability of these SSCs.

Table 3.7-1 is provided in the enclosure.

ITAAC Determination Basis

Risk-significant SSCs identified for the AP1000 standard design are listed in Table 3.7-1 of the Tier 1 material of the AP1000 Design Control Document (DCD). {Licensee} developed an engineering report (Reference 1) to document the estimated reliability of each as-built risk-significant component identified in Table 3.7-1. Estimated reliability for the risk-significant as-built SSCs was determined in accordance with Procedure YYY (Reference 2) and considered industry experience, including operations, maintenance, and monitoring activities.

Procedure YYY (Reference 2) defines the methodology for determining the as-built reliability data for each of the risk-significant components identified in Table 3.7-1 of the Tier 1 Material of the AP1000 DCD. This methodology includes:

- Identification of the specific manufacturer, model number, and component type for each of the risk-significant components in Table 3.7-1 of the AP1000 DCD, as appropriate.
- A historical review of the operations, maintenance, and monitoring history associated with the specific make and model number of the component, and with the generic type of component.
- A method to modify the reliability value for a component based on the identified industry experience and the as-built conditions.
- A comparison of the as-built reliability for each component with the assumed reliability that was used in the AP1000 design certification.

An inspection/assessment of the Engineering Report (Reference 1) was performed to confirm that the estimated reliability for the as-built risk-significant SSCs listed in Table 3.7-1 of the AP1000 DCD was at least equal to the assumed reliability that was utilized in the AP1000 design certification, and that industry experience including operations, maintenance, and monitoring activities was assessed in estimating the reliability of SSCs. This inspection/assessment is documented in Reference 3.

The inspection/assessment concluded that for each risk-significant component identified in Table 3.7-1 of the AP1000 DCD, the estimated reliability of the as-built component is at least equal to the reliability value assumed in the AP1000 design certification, and that industry experience including operations, maintenance, and monitoring activities was assessed in estimating the reliability of SSCs.

ITAAC Close-out Review

In accordance with plant procedures for ITAAC close-out, {Licensee} performed a review of ITAAC-related construction findings and associated corrective actions. This review determined that three such findings, listed below, have been identified.

1. {ITAAC-related construction finding #1}
2. {ITAAC-related construction finding #2}
3. {ITAAC-related construction finding #3}

The corrective actions for each finding have been completed and each finding closed. This review is documented in the close-out package for ITAAC 3.7-3, #1 (Reference 4), which is available for NRC review at the {Site Name} site.

ITAAC Closure Statement

Based on the above information, {Licensee} hereby notifies the NRC that ITAAC 3.7-3, #1 was performed for {Site Name and Unit #(s)}, and that the prescribed acceptance criteria were met.

{Licensee} requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99, and in accordance with the NRC process and schedule guidance for ITAAC completion, evaluation, and notification.

If there are any questions, please contact {Name of Contact Person for licensee} at {Telephone Number for Contact Person}.

Sincerely,

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

References (available for NRC review)

1. Engineering Report *ZZZ*, *Validation of Design Reliability Assurance Program*
2. Procedure YYY, *Validation of Design Reliability Assurance Program*
3. Inspection Report XXX, *Closure of ITAAC 3.7-3, #1*
4. ITAAC 3.7-3, #1 Close-Out Package

Enclosure

Table 3.7-1 **Risk-Significant Components**	
Equipment Name	**Tag No.**
Component Cooling Water System (CCS)	
Component Cooling Water Pumps	CCS-MP-01A/B
Containment System (CNS)	
Containment Vessel	CNS-MV-01
Hydrogen Igniters	VLS-EH-1 through -64
Chemical and Volume Control System (CVS)	
Makeup Pumps	CVS-MP-01A/B
Makeup Pump Suction and Discharge Check Valves	CVS-PL-V113 CVS-PL-V160A/B
Diverse Actuation System (DAS)	
DAS Processor Cabinets and Control Panel (used to provide automatic and manual actuation)	DAS-JD-001 DAS-JD-002 DAS-JD-004 OCS-JC-020
Annex Building UPS Distribution Panels (provide power to DAS)	EDS1-EA-1, EDS1-EA-14, EDS2-EA-1, EDS2-EA-14

Table 3.7-1 (cont.) Risk-Significant Components	
Equipment Name	**Tag No.**
Rod Drive MG Sets (Field Breakers)	PLS-MG-01A/B
Containment Isolation Valves Controlled by DAS	Refer to Table 2.2.1-1
Main ac Power System (ECS)	
Reactor Coolant Pump Switchgear	ECS-ES-31, -32, -41, -42, -51, -52, -61, -62
Ancillary Diesel Generators	ECS-MS-01, -02
6900 Vac Buses	ECS-ES-1, -2
Main and Startup Feedwater System (FWS)	
Startup Feedwater Pumps	FWS-MP-03A/B
General I&C	
IRWST Level Sensors	PXS-045, -046, -047, -048
RCS Hot Leg Level Sensors	RCS-160A/B
Pressurizer Pressure Sensors	RCS-191A/B/C/D
Pressurizer Level Sensors	RCS-195A/B/C/D
Steam Generator Narrow-Range Level Sensors	SGS-001, -002, -003, -004, -005, -006, -007, -008
Steam Generator Wide-Range Level Sensors	SGS-011, -012, -013, -014, -015, -016, -017, -018
Main Steam Line Pressure Sensors	SGS-030, -031, -032, -033, -034, -035, -036, -037
Main Feedwater Wide-Range Flow Sensors	SGS-050A/C/E, -051A/C/E
Startup Feedwater Flow Sensors	SGS-055A/B, -056A/B
CMT Level Sensors	PXS-011A/B/C/D, -012A/B/C/D, -013A/B/C/D, -014A/B/C/D
Class 1E dc Power and Uninterruptible Power System (IDS)	
125 Vdc 24-Hour Batteries	IDSA-DB-1A/B, IDSB-DB-1A/B, IDSC-DB-1A/B, IDSD-DB-1A/B
125 Vdc 24-Hour Battery Chargers	IDSA-DC-1, IDSB-DC-1, IDSC-DC-1, IDSD-DC-1

Table 3.7-1 (cont.) Risk-Significant Components	
Equipment Name	**Tag No.**
125 Vdc and 120 Vac Distribution Panels	IDSA-DD-1, IDSA-EA-1/-2, IDSB-DD-1, IDSB-EA-1/-2/-3, IDSC-DD-1, IDSC-EA-1/-2/-3, IDSD-DD-1, IDSD-EA-1/-2
Fused Transfer Switch Boxes	IDSA-DF-1, IDSB-DF-1/-2, IDSC-DF-1/-2, IDSD-DF-1
125 Vdc Motor Control Centers	IDSA-DK-1, IDSB-DK-1, IDSC-DK-1, IDSD-DK-1
125 Vdc 24-Hour Inverters	IDSA-DU-1, IDSB-DU-1, IDSC-DU-1, IDSD-DU-1
Passive Containment Cooling System (PCS)	
Recirculation Pumps	PCS-MP-01A/B
PCCWST Drain Isolation Valves	PCS-PL-V001A/B/C
Plant Control System (PLS)	
PLS Actuation Software and Hardware (used to provide control functions)	Refer to Table 3.7-2
Protection and Monitoring System (PMS)	
PMS Actuation Software (used to provide automatic control functions)	Refer to Tables 2.5.2-2 and 2.5.2-3
PMS Actuation Hardware (used to provide automatic control functions)	Refer to Tables 2.5.2-2 and 2.5.2-3
MCR 1E Displays and System Level Controls	OCS-JC-010, -011
Reactor Trip Switchgear	PMS-JD-RTS A01/02, B01/02, C01/02, D01/02
Passive Core Cooling System (PXS)	
IRWST Vents	PXS-MT-03
IRWST Screens	PXS-MY-Y01A/B
Containment Recirculation Screens	PXS-MY-Y02A/B
CMT Discharge Isolation Valves	PXS-PL-V014A/B, -V015A/B
CMT Discharge Check Valves	PXS-PL-V016A/B, -V017A/B
Accumulator Discharge Check Valves	PXS-PL-V028A/B, -V029A/B
PRHR HX Control Valves	PXS-PL-V108A/B
Containment Recirculation Squib Valves	PXS-PL-V118A/B, -V120A/B

Table 3.7-1 (cont.) Risk-Significant Components	
Equipment Name	**Tag No.**
IRWST Injection Check Valves	PXS-PL-V122A/B, -V124A/B
IRWST Injection Squib Valves	PXS-PL-V123A/B, -V125A/B
IRWST Gutter Bypass Isolation Valves	PXS-PL-V130A/B
Reactor Coolant System (RCS)	
ADS Stage 1/2/3 Valves (MOVs)	RCS-PL-V001A/B, -V011A/B RCS-PL-V002A/B, -V012A/B RCS-PL-V003A/B, -V013A/B
ADS Stage 4 Valves (Squibs)	RCS-PL-V004A/B/C/D
Pressurizer Safety Valves	RCS-PL-V005A/B
Reactor Vessel Insulation Water Inlet and Steam Vent Devices	RCS-MN-01
Reactor Cavity Doorway Damper	–
Fuel Assemblies	157 assemblies with tag numbers beginning with RXS-FA
Normal Residual Heat Removal System (RNS)	
Residual Heat Removal Pumps	RNS-MP-01A/B
RNS Motor-Operated Valves	RNS-PL-V011, -V022, -V055, -V062
RNS Stop Check Valves	RNS-PL-V007A/B, -V015A/B
RNS Check Valves	RNS-PL-V013, -V056
Spent Fuel Cooling System (SFS)	
Spent Fuel Cooling Pumps	SFS-MP-01A/B
Steam Generator System (SGS)	
Main Steam Safety Valves	SGS-PL-V030A/B, -V031A/B, -V032A/B, -V033A/B, -V034A/B, -V035A/B
Main Steam Line Isolation Valves	SGS-PL-V040A/B
Main Feedwater Isolation Valves	SGS-PL-V057A/B
Service Water System (SWS)	
Service Water Cooling Tower Fans	MA-01A/B
Service Water Pumps	SWS-MP-01A/B

Table 3.7-1 (cont.) Risk-Significant Components	
Equipment Name	**Tag No.**
Nuclear Island Nonradioactive Ventilation System (VBS)	
MCR Ancillary Fans	VBS-MA-10A/B
I&C Room B/C Ancillary Fans	VBS-MA-11, -12
Chilled Water System (VWS)	
Air Cooled Chiller Pumps	VWS-MP-02, -03
Air Cooled Chillers	VWS-MS-02, -03
Onsite Standby Power System (ZOS)	
Engine Room Exhaust Fans	VZS-MY-V01A/B, -V02A/B
Onsite Diesel Generators	ZOS-MS-05A/B

Note: Dash (-) indicates not applicable.