December 22, 2014

NRC 2014-0088
10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Point Beach Nuclear Plant, Units 1 and 2
Docket 50-266 and 50-301
Renewed License Nos. DPR-24 and DPR-27

NextEra Energy Point Beach, LLC's Expedited Seismic Evaluation Process Report (CEUS Sites), Response NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident)

References:

(1) NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012 (ML12073A348)

(2) NEI Letter, Proposed Path Forward for NTTF Recommendation 2.1: Seismic Reevaluations, dated April 9, 2013, (ML13101A379)

(3) NRC Letter, Electric Power Research Institute Report 3002000704, "Seismic Evaluation Guidance: Augmented Approach for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic," as an Acceptable Alternative to the March 12, 2012, Information Request for Seismic Reevaluations, dated May 7, 2013, (ML13106A331)

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued a 50.54(f) letter to all power reactor licensees and holders of construction permits in active or deferred status. Enclosure 1 of Reference (1) requested each addressee located in the Central and Eastern United States (CEUS) to submit a Seismic Hazard Evaluation and Screening Report within 1.5 years from the date of Reference (1).

In Reference (2), the Nuclear Energy Institute (NEI) requested NRC agreement to delay submittal of the final CEUS Seismic Hazard Evaluation and Screening Reports so that an update to the Electric Power Research Institute (EPRI) ground motion attenuation model could be completed and used to develop that information. NEI proposed that descriptions of subsurface materials and properties and base case velocity profiles be submitted to the NRC by September 12, 2013, with the remaining seismic hazard and screening information submitted by March 31, 2014. NRC agreed with that proposed path forward in Reference (3).

Reference (1) requested that licensees provide interim evaluations and actions taken or planned to address the higher seismic hazard relative to the design basis, as appropriate, prior to completion of the risk evaluation. In accordance with the NRC endorsed guidance in Reference (3), the attached Expedited Seismic Evaluation Process Report for NextEra Energy Point Beach, LLC provides the information described in Section 7 of Electrical Power Research Institute Report 3002000704 in accordance with the schedule identified in Reference (2).

This letter contains seven new Regulatory Commitments. These commitments are listed in Section 8.4, Summary of Regulatory Commitments. There are no changes to any existing Regulatory Commitments.

If you have any questions please contact Mr. Michael Millen, Licensing Manager, at 920/755-7845.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on December 22, 2014.

Very truly yours,

NextEra Energy Point Beach, LLC

Eric McCartney
Site Vice President

Enclosure

cc: Director, Office of Nuclear Reactor Regulation
Administrator, Region III, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC
Project Manager, Point Beach Nuclear Plant, USNRC

ENCLOSURE

NEXTERA ENERGY POINT BEACH, LLC
UNITS ONE AND TWO

EXPEDITED SEISMIC EVALUATION PROCESS (ESEP) REPORT

1.0 Purpose and Objective

Following the accident at the Fukushima Dai-ichi nuclear power plant resulting from the March 11, 2011, Great Tohoku Earthquake and subsequent tsunami, the Nuclear Regulatory Commission (NRC) established a Near-Term Task Force (NTTF) to conduct a systematic review of NRC processes and regulations and to determine if the agency should make additional improvements to its regulatory system. The NTTF developed a set of recommendations intended to clarify and strengthen the regulatory framework for protection against natural phenomena. Subsequently, the NRC issued a 50.54(f) letter on March 12, 2012 [Ref. 1], requesting information to assure that these recommendations are addressed by all U.S. nuclear power plants. The 50.54(f) letter requests that licensees and holders of construction permits under 10 CFR Part 50 reevaluate the seismic hazards at their sites against present-day NRC requirements and guidance. Depending on the comparison between the reevaluated seismic hazard and the current design basis, further risk assessment may be required. Assessment approaches acceptable to the staff include a seismic probabilistic risk assessment (SPRA), or a seismic margin assessment (SMA). Based upon the assessment results, the NRC staff will determine whether additional regulatory actions are necessary.

This report describes the Expedited Seismic Evaluation Process (ESEP) undertaken for the Point Beach Nuclear Plant (PBNP). The intent of the ESEP is to perform an interim action in response to the NRC's 50.54(f) letter [Ref. 1] to demonstrate seismic margin through a review of a subset of the plant equipment that can be relied upon to protect the reactor core following beyond design basis seismic events.

The ESEP is implemented using the methodologies in the NRC endorsed guidance in EPRI 3002000704, *Seismic Evaluation Guidance: Augmented Approach for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic* [Ref. 2].

The objective of this report is to provide summary information describing the ESEP evaluations and results. The level of detail provided in the report is intended to enable NRC to understand the inputs used, the evaluations performed, and the decisions made as a result of the interim evaluations.

2.0 Brief Summary of the FLEX Seismic Implementation Strategies

The Point Beach FLEX strategies for Reactor Core Cooling and Heat Removal, Reactor Inventory Control/Long-term Subcriticality, Spent Fuel Pool (SFP) cooling and Containment Function are summarized below. This summary is derived from the Point Beach Overall Integrated Plan (OIP) in Response to the March 12, 2012, Commission Order EA-12-049 [Ref. 3].

Upon the reactor trip, reactor core cooling is accomplished by natural circulation of the Reactor Coolant System (RCS) through the Steam Generators (SGs). The SGs are supplied by the Auxiliary Feedwater (AFW) system and steam pressure is initially controlled by the Atmospheric Dump Valves (ADVs). If instrument air is unavailable steam pressure will be controlled by the operation of the Main Steam Safety Valves (MSSVs) until the ADVs are manually controlled. The main active component associated with this strategy is the Turbine-Drive Auxiliary Feedwater Pump (TDAFW) pump, which is automatically actuated to provide feedwater from the CSTs to the SGs for the removal of reactor core decay heat. A modification will be performed on both CSTs to provide seismic qualification and protection from tornado generated missiles to a tank level of 6 feet which will provide a volume of 14,100 gallons of available water per tank. Operator action is initiated to swap the suction supply from the CST to Service Water (SW). SW will be supplied by the Diesel Driven Fire Pump (DDFP) via a cross connection between fire water and service water. The DDFP is being replaced and upgraded to make it seismically robust.

Several actions are required during Phase 2 following the event for reactor core cooling. The main strategy is dependent upon the continual operation of the TDAFW pumps, which are only capable of feeding the Steam Generators as long as there is sufficient steam pressure to drive the TDAFW pump turbines.

If SGs are unavailable in MODES 5 and 6 and the refueling cavity is not flooded, the RCS will heat up and boil. Makeup flow to the RCS will be established from the accumulator(s) via the fill line. The accumulator fill line is connected to the Safety Injection (SI) cold leg injection line and when aligned will provide make up directly to the reactor vessel. In MODE 5 and 6 and SGs are unavailable, at least one accumulator will be procedurally controlled and maintained available with a hot leg vent path established whenever possible. For Phase 2 MODES 5 and 6 a Portable Diesel Driven Pump (PDDP), capable of at least 300 gpm to address boric acid precipitation concerns, will supply borated water from the Refueling Water Storage Tank (RWST) to the RCS using pre-established primary or secondary connection points on the Residual Heat Removal (RHR) system piping.

Reactor Inventory Control/Long-term Subcriticality strategy consists of reactor coolant system borated make-up via the primary make-up connections and a portable diesel driven pump. Cooldown of the RCS will commence approximately 12 hours after the Beyond Design Basis External Event (BDBEE). The Reactor Coolant Pump (RCP) seals will be upgraded with low leakage Westinghouse Generation 3 SHIELD RCP seals. Since the low leakage seals will allow negligible RCS inventory losses, RCS makeup is no longer required to achieve a stable steady state in Phase 1 with the reactor core being cooled.

Reactor coolant system (RCS) inventory reduction is a result of water volume reduction due to cooldown, reactor coolant pump seal leakage, and letdown via head-vents and/or pressurizer Power Operated Relief Valve (PORVs). To avoid adverse effects on the RCS natural circulation flow, the accumulator block isolation valves are electrically closed prior to commencing the cooldown to prevent nitrogen injection into the reactor coolant system.

There are no Phase 1 FLEX actions to maintain containment integrity. During Phase 2, containment pressure and temperature are monitored to ensure the containment safety function is not challenged. For the at-power event leakage from the RCS to containment is limited by the low leakage RCP seals. For the shutdown event the RCS is allowed to boil and steam is released to containment. If containment conditions warrant, a PDDP will supply water to the containment spray system via an adapter that will replace the cover of a spray pump discharge check valve. Manual venting is also an option.

The Spent Fuel Pool (SFP) temperature is allowed to increase to the boiling point. Water will be added (Phase 2) well before fuel becomes uncovered. The Primary Auxiliary Building (PAB) will be vented by opening the PAB truck access doors and the 66' Elevation personnel doors as necessary based on PAB conditions. Water is added to the SFP with a PDDP and hoses using either direct addition or spray. The PDDP will draw raw water from the Pump House Forebay, Pump bay, or directly from Lake Michigan. A connection point has been added that will allow the addition of raw water from the PDDP to the SFP without accessing the refueling deck.

The safety-related 125V system consists of four main distribution buses: D-01, D-02, D-03, and D-04. The D-01 (train A) and D-02 (train B) main DC distribution buses supply power for control, emergency lighting, and the red and blue 120 VAC Vital Instrument bus (Y) inverters. The D-03 (train A) and D-04 (train B) main DC distribution buses supply power for control and the white and yellow 120 VAC Vital Instrument (Y) buses. A battery load management strategy has been developed to provide power to credited installed equipment (e.g., DC Motor Operated Valves (MOVs), Solenoid Operated Valves (SOVs), etc) and at least one channel of credited instrumentation during Phase 1. During Phase 2 onsite portable equipment is used to restore battery chargers, replenish fuel oil tanks, and augment plant lighting, ventilation, freeze protection, and communication systems as necessary. 480 VAC Portable Diesel Generator (PDG) will be used to power credited installed equipment via the safety related 480 VAC distribution system. The primary connection points will be at 1B-03 and 2B-03 which are A Train 480V vital buses located in the Cable Spreading Room (CSR).

The Phase 2 portable equipment and connection points will maintain the safety functions for an extended time. Point Beach did not identify any specific Phase 3 requirements. Equipment provided by the Regional Response Centers can be used to replace phase 2 equipment and for recovery. A connection point(s) for a 4kV portable generator has been identified as a backup and to support recovery.

3.0 Equipment Selection Process and ESEL

The selection of equipment for the Expedited Seismic Equipment List (ESEL) followed the guidelines of EPRI 3002000704 [Ref. 2]. The Point Beach design and FLEX strategy relies on some common equipment that supports both units. Backup strategies also rely on opposite unit equipment. Because of the reliance on common equipment and opposite unit equipment a combined ESEL was developed for the Point Beach units that support the Point Beach Overall Integrated Plan (OPI). The ESEL for Unit 1 and Unit 2 is presented in Attachment A.

3.1 Equipment Selection Process and ESEL

The selection of equipment to be included on the ESEL was based on installed plant equipment credited in the FLEX strategies during Phases 1, 2 and 3 mitigation of a Beyond Design Basis External Event (BDBEE), as outlined in the OIP in Response to the March 12, 2012, Commission Order EA-12-049 [Ref. 3]. The OIP provides the Point Beach FLEX mitigation strategy and serves as the basis for equipment selected for the ESEP.

The scope of “installed plant equipment” includes equipment relied upon for the FLEX strategies to sustain the critical functions of core cooling, spent fuel pool cooling and containment integrity consistent with the Point Beach OIP [Ref. 3]. FLEX recovery actions are excluded from the ESEP scope per

EPRI 3002000704 [Ref. 2]. The overall list of planned FLEX modifications and the scope for consideration herein is limited to those required to support core cooling, reactor coolant inventory, subcriticality, containment integrity and spent fuel pool cooling functions. Portable and pre-staged FLEX equipment (not permanently installed) are excluded from the ESEL per EPRI 3002000704 [Ref. 2].

The ESEL component selection followed the EPRI guidance outlined in Section 3.2 of EPRI 3002000704.

1) The scope of components is limited to that required to accomplish the core cooling and containment safety functions identified in Table 3-2 of EPRI 3002000704. The instrumentation monitoring requirements for core cooling/containment safety functions are limited to those outlined in the EPRI 3002000704 guidance, and are a subset of those outlined in the Point Beach OIP [Ref. 3].
2) The scope of components is limited to installed plant equipment, and FLEX connections necessary to implement the Point Beach OIP [Ref. 3] as described in Section 2.
3) The scope of components assumes the credited FLEX connection modifications are implemented, and are limited to those required to support a single FLEX success path (i.e., either "Primary" or "Back-up/Alternate").
4) The "Primary" FLEX success path is to be specified. Selection of the "Back-up/Alternate" FLEX success path must be justified.
5) Phase 3 coping strategies are included in the ESEP scope, whereas recovery strategies are excluded.
6) Structures, systems, and components excluded per the EPRI 3002000704 [Ref. 2] guidance are:
    - Structures (e.g. containment, reactor building, control building, auxiliary building, etc.)
    - Piping, cabling, conduit, HVAC, and their supports.
    - Manual valves and rupture disks.
    - Power-operated valves not required to change state as part of the FLEX mitigation strategies.
    - Nuclear steam supply system components (e.g. reactor pressure vessel and internals, reactor coolant pumps and seals, etc.)
7) For cases in which neither train was specified as a primary or back-up strategy, then only one train component is included in the ESEL.

3.1.1 ESEL Development

The ESEL was developed by reviewing the Point Beach OIP [Ref. 3] to determine the major equipment involved in the FLEX strategies. Further reviews of plant drawings (e.g., Process and Instrumentation Diagrams (P&IDs) and Electrical One Line Diagrams) were performed to identify the boundaries of the flowpaths to be used in the FLEX strategies and to identify specific components in the flowpaths needed to support implementation of the FLEX strategies. Boundaries were established at an electrical or mechanical isolation device (e.g., isolation amplifier, valve, etc.) in branch circuits / branch lines off the defined strategy electrical or fluid flowpath. P&IDs were the primary reference documents used to identify mechanical components and instrumentation. The flow paths used for FLEX strategies were selected and specific components were identified using detailed equipment and instrument drawings, piping isometrics, electrical schematics and one-line drawings, system descriptions, design basis documents, etc., as necessary.

3.1.2 Power Operated Valves

Page 3-3 of EPRI 3002000704 [Ref. 2] notes that power operated valves not required to change state are excluded from the ESEL. Page 3-2 also notes that "functional failure modes of electrical and mechanical portions of the installed Phase 1 equipment should be considered (e.g. RCIC/AFW trips)." To address this concern, the following guidance is applied in the Point Beach ESEL for functional failure modes associated with power operated valves:

- Power operated valves that remain energized during the Extended Loss of all AC Power (ELAP) events (such as DC powered valves), were included on the ESEL.
- Power operated valves not required to change state as part of the FLEX mitigation strategies were not included on the ESEL. The seismic event also causes the ELAP event; therefore, the valves are incapable of spurious operation as they would be de-energized.
- Power operated valves not required to change state as part of the FLEX mitigation strategies during Phase 1, and are re-energized and operated during subsequent Phase 2 and 3 strategies, were not evaluated for spurious valve operation as the seismic event that caused the ELAP has passed before the valves are re-powered.

3.1.3 Pull Boxes

Pull boxes were deemed unnecessary to add to the ESELs as these components provide completely passive locations for pulling or installing cables. No breaks or connections in the cabling are included in pull boxes. Pull boxes were considered part of conduit and cabling, which are excluded in accordance with EPRI 3002000704 [Ref. 2].

3.1.4 Termination Cabinets

Termination cabinets, including cabinets necessary for FLEX Phase 2 and Phase 3 connections, provide consolidated locations for permanently connecting multiple cables. The termination cabinets and the internal connections provide a completely passive function; however, the cabinets are included in the ESEL to ensure industry knowledge on panel/anchorage failure vulnerabilities is addressed.

3.1.5 Critical Instrumentation Indicators

Critical indicators and recorders are typically physically located on panels/cabinets and are included as separate components; however, seismic evaluation of the instrument indication may be included in the panel/cabinet seismic evaluation (rule-of-the-box).

3.1.6 Phase 2 and Phase 3 Piping Connections

Item 2 in Section 3.1 above notes that the scope of equipment in the ESEL includes "... FLEX connections necessary to implement the Point Beach OIP [Ref. 3] as described in Section 2." Item 3 in Section 3.1 also notes that "The scope of components assumes the credited FLEX connection modifications are implemented, and are limited to those required to support a single FLEX success path (i.e., either "Primary" or "Back-up/Alternate")."

Item 6 in Section 3.1 above goes on to explain that "Piping, cabling, conduit, HVAC, and their supports" are excluded from the ESEL scope in accordance with EPRI 3002000704 [Ref. 2].

Therefore, piping and pipe supports associated with FLEX Phase 2 and Phase 3 connections are excluded from the scope of the ESEP evaluation. However, any active valves in FLEX Phase 2 and Phase 3 connection flow path are included in the ESEL.

3.1.7 Relays and Contactors

The FLEX Phase 1 components were reviewed to identify relays and contactors. The relays and contactors were reviewed to identify relays and contactors that may lead to circuit seal-ins or lock-outs, and take the electrical circuit to a state different than is desired in the FLEX strategy. Those relays and contactors leading to sealing-in or locking-out circuits were included on the ESEL.

3.1.8 Breakers

Generally, the seismic qualification relied upon for the fragility evaluation is based on the panel/cabinet, not on individual components. Breakers were evaluated by including the panel/cabinet on the ESEL unless there was a seal-in circuit /lock out relay that could preclude manual operation.

3.2 No exceptions were taken for use of equipment that is not the primary means for FLEX Implementation.

The complete ESEL for Unit 1 and Unit 2 is presented in Attachment A

4.0 Ground Motion Response Spectrum (GMRS)

4.1 Plot of GMRS Submitted by the Licensee

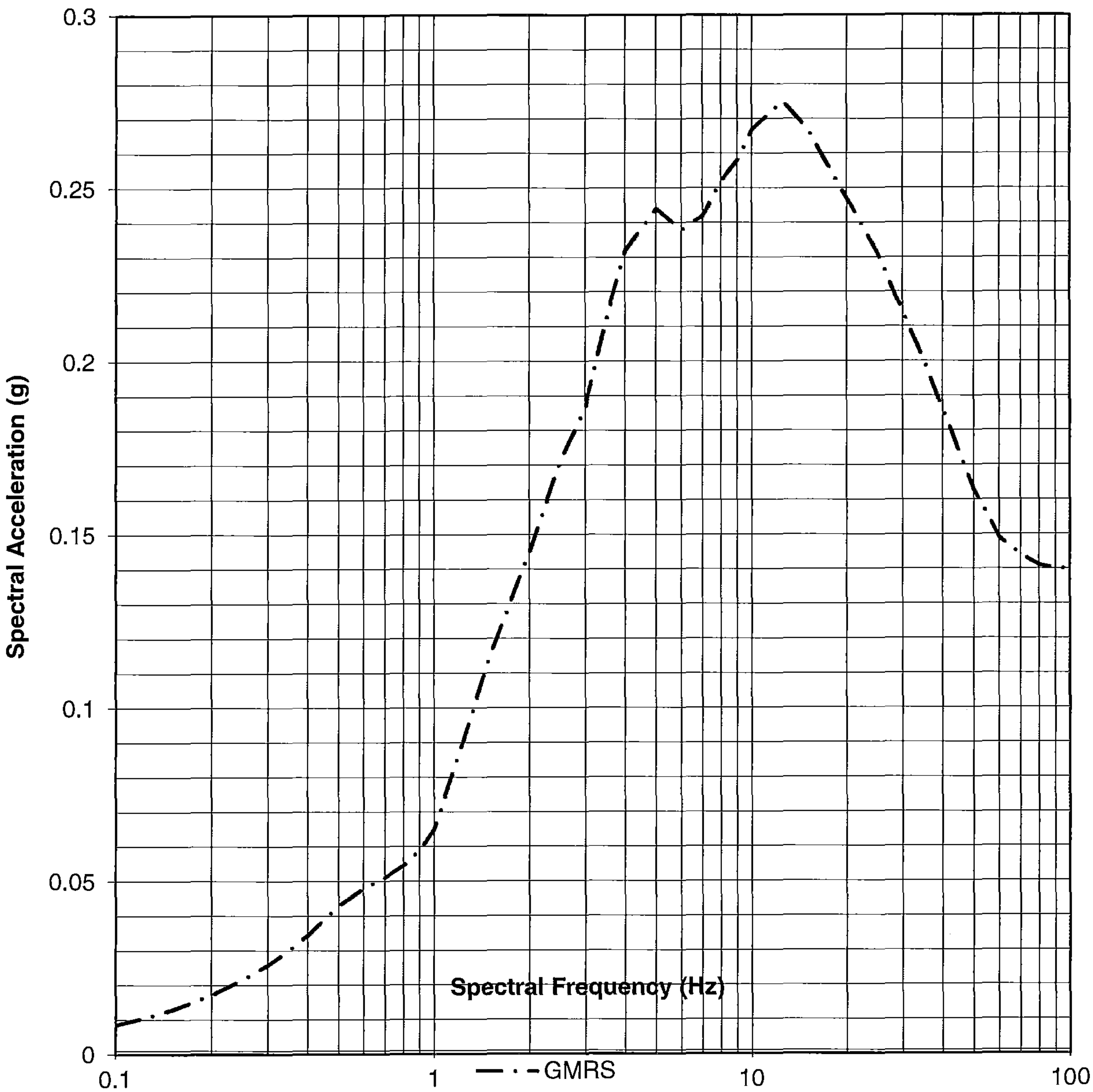
As discussed in Section 3.2 of the March submittal report [Ref. 4] the SSE Control Point elevation is +8.0 ft., which is the highest foundation of key safety-related structures.

The GMRS provided in the March submittal report [Ref. 4] is tabulated and graphed below:

TABLE 4-1 PBNP GMRS

Freq (Hz)	GMRS (g)		Freq (Hz)	GMRS (g)
0.1	8.60E-03		4	2.32E-01
0.125	1.08E-02		5	2.44E-01
0.15	1.29E-02		6	2.38E-01
0.2	1.72E-02		7	2.42E-01
0.25	2.15E-02		8	2.52E-01
0.3	2.58E-02		9	2.58E-01
0.35	3.01E-02		10	2.67E-01
0.4	3.44E-02		12.5	2.75E-01
0.5	4.30E-02		15	2.67E-01
0.6	4.78E-02		20	2.47E-01
0.7	5.11E-02		25	2.31E-01
0.8	5.45E-02		30	2.14E-01
0.9	5.89E-02		35	2.00E-01
1	6.50E-02		40	1.86E-01
1.25	9.19E-02		50	1.63E-01
1.5	1.15E-01		60	1.49E-01
2	1.45E-01		70	1.44E-01
2.5	1.71E-01		80	1.41E-01
3	1.87E-01		90	1.40E-01
3.5	2.13E-01		100	1.40E-01

FIGURE 4-1 PBNP GMRS PLOT



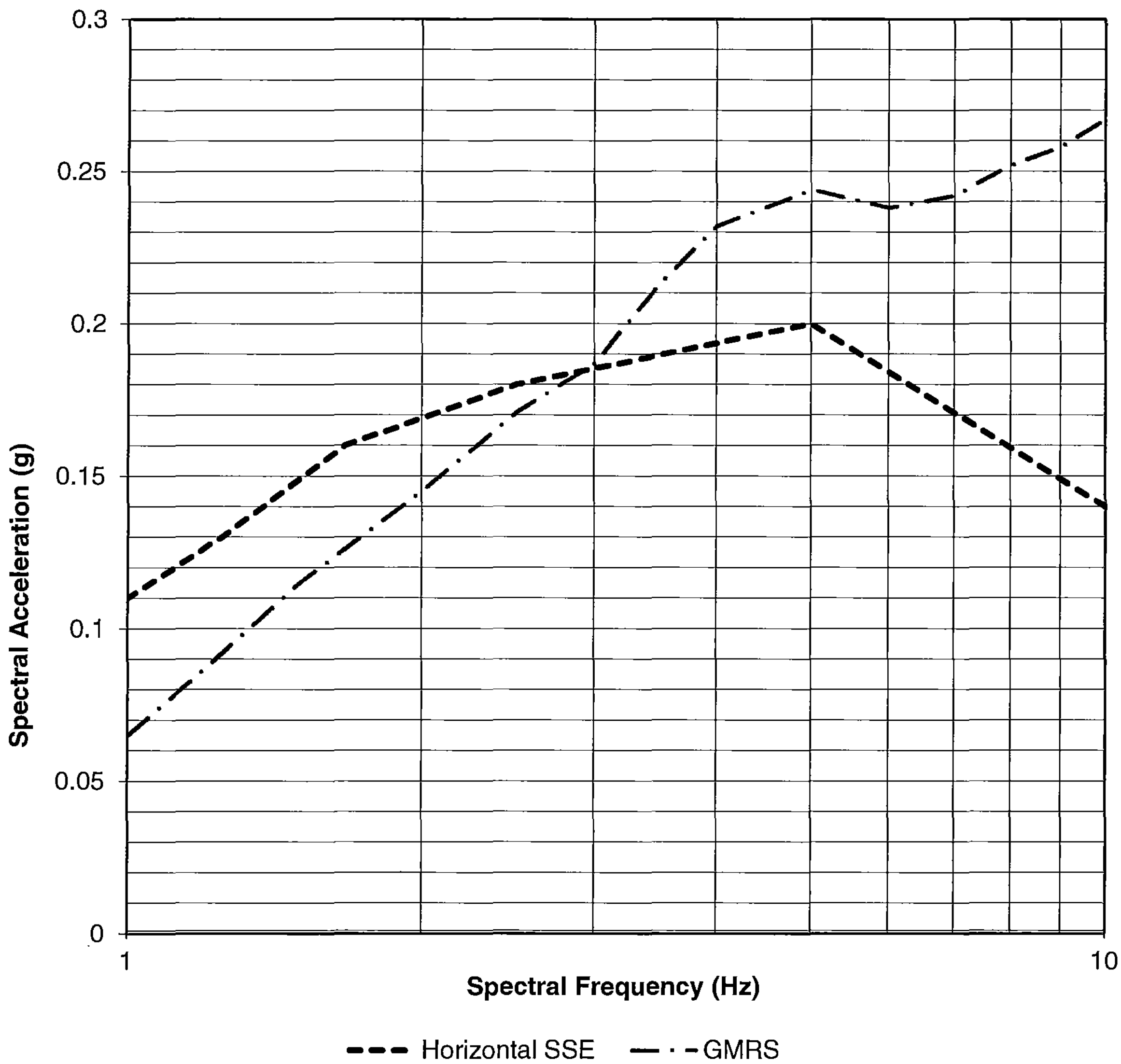
4.2 Comparison to SSE

As identified in the March submittal report [Ref. 4], the GMRS exceeds the SSE in the 1-10 hz range as shown in the table and graph below:

TABLE 4-2 PBNP GMRS vs. SSE

Freq. (Hz)	GMRS (unscaled, g)	Horizontal SSE (g)
1	0.065	0.110
1.25	0.092	0.130
1.5	0.115	0.149
2	0.126	0.160
2.5	0.145	0.169
3	0.171	0.180
3.5	0.187	0.185
4	0.213	0.190
5	0.232	0.194
6	0.244	0.200
7	0.238	0.184
8	0.242	0.171
9	0.252	0.159
10	0.258	0.149

FIGURE 4-2 PBNP GMRS vs. SSE PLOT



5.0 Review Level Ground Motion (RLGM)

5.1 Description of RLGM Selected

The RLGM for PBNP was determined in accordance with Section 4 of EPRI 30020000704 [Ref. 2] as being derived by linearly scaling the PBNP SSE by the maximum ratio of the GMRS/SSE between the 1 and 10 hertz range.

The ratio between the GMRS and SSE at 5% damping is tabulated below. Note that the acceleration values for the SSE spectrum or the GMRS which are not provided explicitly in the source documentation at intermediate points are developed by interpolating between the nearest available values.

TABLE 5-1 RATIO BETWEEN GMRS AND SSE

Freq. (Hz)	GMRS (unscaled, g)	Horizontal SSE (g)	SF = GMRS/SSE
1	0.065	0.110	0.59
1.25	0.092	0.130	0.71
1.5	0.115	0.149	0.77
1.67	0.126	0.160	0.79
2	0.145	0.169	0.86
2.5	0.171	0.180	0.95
3	0.187	0.185	1.01
3.5	0.213	0.190	1.12
4	0.232	0.194	1.20
5	0.244	0.200	1.22
6	0.238	0.184	1.29
7	0.242	0.171	1.42
8	0.252	0.159	1.58
9	0.258	0.149	1.73
10	0.267	0.140	1.91

The maximum ratio between the 5% damping GMRS and horizontal SSE occurs at 10 Hz and equals 1.91.

The resulting RLGM based on increasing the horizontal SSE by the maximum ratio of 1.91 is plotted below. Per DG-C03 [Ref. 19], the vertical response spectrum is equal to 2/3 times the horizontal ground response spectrum. Therefore, the vertical RLGM is equal to 2/3 times the horizontal RLGM.

TABLE 5-2 PBNP RLGM

Freq. (Hz)	RLGM	
	Horizontal (g)	Vertical (g)
0.33	0.0860	0.0573
0.50	0.1222	0.0815
1.00	0.2101	0.1401
1.25	0.2483	0.1655
1.67	0.3056	0.2037
2.50	0.3438	0.2292
5.00	0.3820	0.2547
10.00	0.2674	0.1783
12.50	0.2292	0.1528
16.67	0.2292	0.1528
25.00	0.2292	0.1528
35.71	0.2292	0.1528

FIGURE 5-2 PLOT OF HORTIZONTAL RLGM

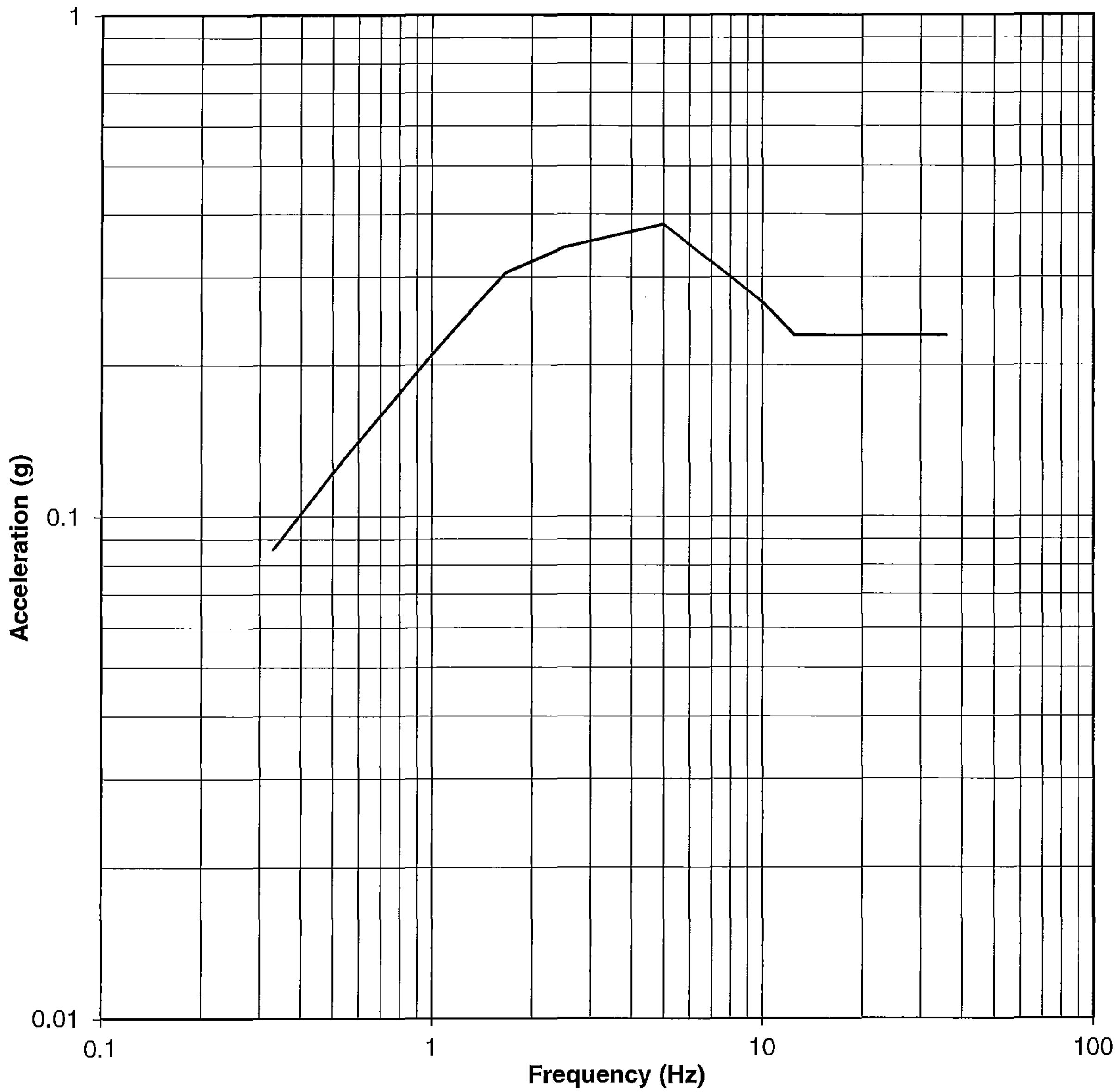
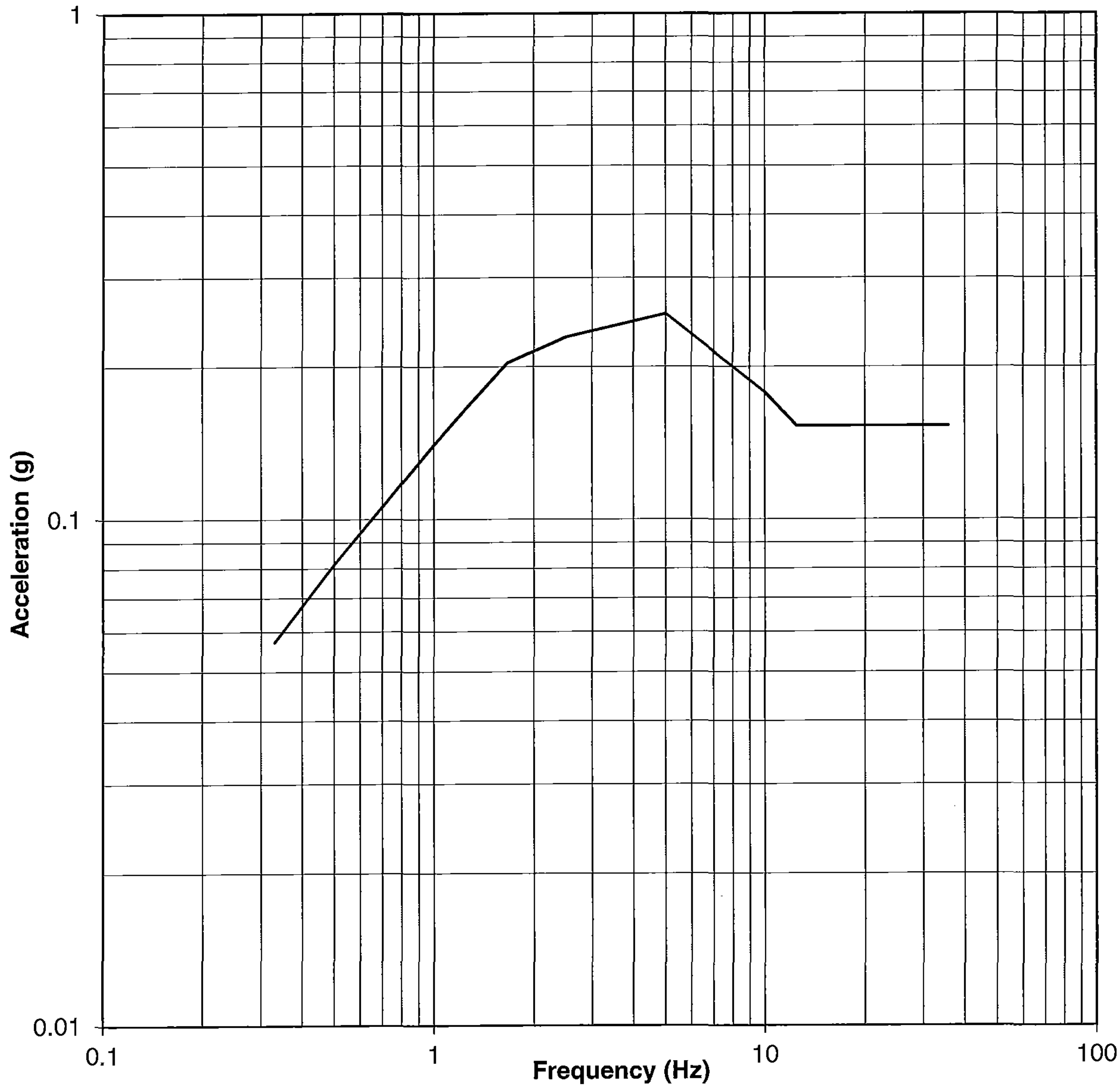


FIGURE 5-3 PLOT OF VERTICAL RLGM



5.2 Method to Estimate ISRS

The method used to derive the ESEP in-structure response spectra (ISRS) was to scale the existing SSE-based ISRS obtained from DG-C03, Revision 3, "Seismic Design Criteria Guideline" [Ref. 19] by the maximum ratio of 1.91. The scaled ISRS was determined for all buildings and elevations where ESEL items are located at PBNP. These scaled ISRS are sometimes referred to as the In-Structure Review Level Ground Motion (ISRLGM).

An exception has been made for the Recirculating Water Storage Tanks (RWST). These tanks are founded on an independent slab which is isolated from the surrounding buildings and located on grade. Because the effect of the slab on the seismic demand of the RWST is negligible and the slab responds independently from the nearby buildings, the seismic demand at the control point of El 8.0 ft. may be used as the seismic demand for the tank. Because the fluid-structure modal frequency of the tank is lower than the frequency of the applicable ground response spectrum at the peak acceleration, the Soil-Structure Interaction (SSI) effects on these tanks may be ignored, per Step 4 of Section 7.3.2 of Seismic Qualification Utilities Group (SQUG), "Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment", Rev. 2a [Ref. 20]. As such, the GMRS was used directly as the RLGM (seismic demand) for these tanks.

6.0 Seismic Margin Evaluation Approach

It is necessary to demonstrate that ESEL items have sufficient seismic capacity to meet or exceed the demand characterized by the RLGM. The seismic capacity is characterized as the peak ground acceleration (PGA) for which there is a high confidence of a low probability of failure (HCLPF). The PGA is associated with a specific spectral shape, in this case the 5%-damped RLGM spectral shape. The HCLPF capacity must be equal to or greater than the RLGM PGA. The criteria for seismic capacity determination are given in Section 5 of EPRI 3002000704 [Ref. 2].

There are two basic approaches for developing HCLPF capacities:

1. Deterministic approach using the conservative deterministic failure margin (CDFM) methodology of EPRI NP-6041, A Methodology for Assessment of Nuclear Power Plant Seismic Margin (Revision 1) [Ref. 7].
2. Probabilistic approach using the fragility analysis methodology of EPRI TR-103959, Methodology for Developing Seismic Fragilities [Ref. 8].

For PBNP, the deterministic approach using the CDFM methodology of EPRI NP-6041 [Ref. 7] was used to determine HCLPFs.

6.1 Summary of methodologies used

PBNP applied the methodology of EPRI NP-6041 [Ref. 7] to all items on the ESEL. The screening walkdowns used the screening tables from Chapter 2 of EPRI NP-6041 [Ref. 7]. The walkdowns were conducted by engineers who as a minimum attended the SQUG Walkdown Screening and Seismic Evaluation

Training Course. The walkdowns were documented on Screening Evaluation Work Sheets (SEWS) from EPRI NP-6041 [Ref. 7]. Anchorage capacity calculations were determined using the CDFM criteria from EPRI NP-6041 [Ref. 7] with PBNP specific allowables and material strengths used as applicable. Seismic demand was the RLGM provided in Table 5-2 and Figures 5-2 and 5-3.

6.2 HCLPF screening process

The peak spectral acceleration of the RLGM (amplified PGA) for PBNP equals 0.382 (Table 5-2). Table 2-4 of EPRI NP-6041 [Ref. 7] is based on ground peak spectral accelerations of 0.8g and 1.2g. These both exceed the PBNP RLGM peak spectral acceleration. The PBNP ESEL components were screened against the 0.8g column of Table 2-4 of NP-6041 [Ref. 7].

The combined Unit 1 and Unit 2 ESEL contains 241 items. The components in the ESEL were evaluated to the EPRI NP-6041 [Ref. 7] caveats and documented on the equipment SEWS.

6.3 Seismic Walkdown Approach

6.3.1 Walkdown Approach

Walkdowns were performed in accordance with the criteria provided in Section 5 of EPRI 3002000704 [Ref. 2], which refers to EPRI NP-6041 [Ref. 7] for the Seismic Margin Assessment process. Pages 2-26 through 2-30 of EPRI NP-6041 [Ref. 7] describe the seismic walkdown criteria, including the following key criteria.

"The SRT [Seismic Review Team] should "walk by" 100% of all components which are reasonably accessible and in non-radioactive or low radioactive environments. Seismic capability assessment of components which are inaccessible, in high-radioactive environments, or possibly within contaminated containment, will have to rely more on alternate means such as photographic inspection, more reliance on seismic reanalysis, and possibly, smaller inspection teams and more hurried inspections. A 100% "walk by" does not mean complete inspection of each component, nor does it mean requiring an electrician or other technician to de-energize and open cabinets or panels for detailed inspection of all components. This walkdown is not intended to be a QA or QC review or a review of the adequacy of the component at the SSE level.

If the SRT has a reasonable basis for assuming that the group of components are similar and are similarly anchored, then it is only necessary to inspect one component out of this group. The "similarity-basis" should be developed before the walkdown during the seismic capability preparatory work (Step 3) by reference to drawings, calculations or specifications. The one component or each type which is selected should be thoroughly inspected which probably does mean de-energizing and opening cabinets or panels for this very limited sample. Generally, a spare representative component can be found so as to *enable the inspection to be performed while the plant is in operation. At least for the one component of each type which is selected, anchorage should be thoroughly inspected.*

The walkdown procedure should be performed in an ad hoc manner. For each class of components the SRT should look closely at the first items and compare the field configurations with the construction drawings and/or specifications. If a one-to-one correspondence is found, then subsequent items do not have to be inspected in as great a detail. Ultimately the walkdown becomes a "walk by" of the component class as the SRT becomes confident that the construction pattern is typical. This procedure for inspection should be repeated for each component class; although, during the actual walkdown the SRT may be inspecting several classes of components in parallel. If serious exceptions to the drawings or questionable construction practices are found then the Seismic or component class must be inspected in closer detail until the Systematic deficiency is defined.

The 100% "walk by" is to look for outliers, lack of similarity, anchorage which is different from that shown on drawings or prescribed in criteria for that component, potential SI [Seismic Interaction[1]] problems, situations that are at odds with the team members' past experience, and any other areas of serious seismic concern. If any such concerns surface, then the limited sample size of one component of each type for thorough inspection will have to be increased. The increase in sample size which should be inspected will depend upon the number of outliers and different anchorages, etc., which are observed. It is up to the SRT to ultimately select the sample size since they are the ones who are responsible for the seismic adequacy of all elements which they screen from the margin review. Appendix D gives guidance for sampling selection of EPRI 3002000704 [Ref. 2], which refers to EPRI NP-6041 [Ref. 7] for the Seismic Margin Assessment process. Pages 2-26 through 2-30 of EPRI NP-6041 [7] describe the seismic walkdown criteria, including the following key criteria.

The PBNP walkdowns included as a minimum a 100% walk-by of all items on the ESEL except as noted in Section 7.0. Any previous walkdown information that was relied upon for SRT judgment is documented in Section 6.3.2.

6.3.2 Application of Previous Walkdown Information

Documentation available via PBNP's Seismic Qualification Utility Group (SQUG) program was frequently used to enhance the screening process.

The walkdown information from the SQUG program was used as a basis for acceptability in the ESEP for the following components: 2TE-451A and

[1] EPRI 3002000704 [Ref. 2] page 5-4 limits the ESEP seismic interaction reviews to "nearby block walls" and "piping attached to tanks" which are reviewed "to address the possibility of failures due to differential displacements." Other potential seismic interaction evaluations are "deferred to the full seismic risk evaluations performed in accordance with EPRI 1025287 [Ref. 15].

2TE-451C, as well as the internal mountings for all electrical panels/cabinets that were not opened and inspected by the SRT.

Previous NTTF 2.3 seismic walkdowns [Ref. 17] were not used to support the ESEP seismic evaluations.

6.3.3 Significant Walkdown Findings

The following findings were noted during the walkdowns.

- The lateral support for Valve 2SC-953 was found to have two missing bolts. AR 01955412 was written to address these missing bolts. The two bolts have been installed and the AR has been closed.
- The lateral support for Valve 1SC-953 was found to have two missing bolts. AR 01998370 was written to address these missing bolts. Bolt hole misalignment prevented installing both bolts. The SRT has concluded that a single bolt provides adequate lateral support. One bolt has been installed and the AR has been closed.
- Several block walls were identified in the proximity of ESEL equipment. These block walls were assessed for their structural adequacy to withstand the seismic loads resulting from the RLGM. For these cases, the block wall is noted on the ESEL HCLPF tables in Attachment B. Where the HCLPF is below the RLGM plant modifications will be performed as identified in section 8.2 Identification of Planned Modifications.

No other significant outliers or anchorage concerns were identified during the PBNP seismic walkdowns.

6.4 HCLPF Screening Process

ESEL items were evaluated using the criteria in EPRI NP-6041 [Ref. 7]. Those evaluations included the following steps:

- Performing seismic capability walkdowns for equipment to evaluate the equipment installed plant conditions
- Performing screening evaluations using the screening tables in EPRI NP-6041[Ref. 7] as described in Section 6.2 and
- Performing HCLPF calculations considering various failure modes that include both structural failure modes (e.g. anchorage, load path etc.) and functional failure modes [Note: Functional failure modes are for relays only].

All HCLPF calculations were performed using the CDFM methodology.

Anchorage for components was evaluated using SRT judgment, reviewing large margins in existing design basis calculations, or performing CDFM HCLPF calculations [Ref. 10]. These evaluations are summarized in Attachment B. For components located higher than 40 feet above grade, Table 2-4 of NP-6041 [Ref. 7] is not valid. Page 5-4 of EPRI 3002000704 [Ref. 2] references the EPRI document 1019200, “Seismic Fragility Applications Guide Update” [21] with respect to screening criteria beyond 40 feet above grade. Section 4-2 of this document specifies 1.5 as an appropriate factor to evaluate the HCLPF capacity of structure-mounted items. As such, the Table 2-4 screening lanes' spectral accelerations are multiplied by a factor of 1.5 in order to account for spectral acceleration at the base of the component. This screening level at the base of the components is compared to the ISRLGM corresponding to the RLGM.

6.5 Functional Evaluation of Relays

A HCLPF evaluation was performed for all relays and contactors included on the PBNP ESEL.

For relay evaluations, NP-6041-SL Appendix Q describes the following evaluation steps:

- Calculate in-cabinet response spectra (ICRS)
- Establish a clipping factor to be applied to the ICRS
- Determine a relay's capacity based on GERS or component testing
- Establish adjustment factors to convert the relay's capacity to a CDFM level
- Compare demand to the capacity

HCLPF capacities for the relays on the PBNP ESEL were calculated and are presented in Attachment B. Note that clipping factors were not used in the evaluations because they were not needed to show that relays' capacities are acceptable. Parent components are not assigned the HCLPF of the contained relays in Attachment B.

6.6 Tabulated ESEL HCLPF Values (Including Key Failure Modes)

Tabulated ESEL HCLPF values including the key failure modes are included in Attachment B for all items on the ESEL.

- For items screened out using NP 6041 [Ref. 7] screening tables, the screening level can be provided as RLGM and the failure mode can be listed as "Screened", (unless the controlling HCLPF value is governed by anchorage).
- For items where anchorage controls the HCLPF value, the HCLPF value is listed in the table and the failure mode is noted as "anchorage."
- For the relays evaluated "functional failure" is listed as the failure mode.

7.0 Inaccessible Items

7.1 Identification of ESEL items inaccessible for walkdowns

The following table lists the ESEL items that were not walked down, a discussion on why these items were not walked down, and states whether further action (i.e. future walkdown) is required.

Equipment ID	Description	Building	Discussion	Further action req'd?
1N-40	U1 NI Wide Range	Unit 1 Containment	This component is located in a high radiation area and is not easily accessible. For ALARA purposes, this component was not walked down. The component itself is inherently rugged and is judged not to be a concern. Anchorage screened by large available margin in existing design basis calculation.	No
1TE-00019	Incore Thermocouple at B-5	Unit 1 Containment	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.	No
1TE-00037	Incore Thermocouple at K-11	Unit 1 Containment	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.	No
2N-40	U2 NI Wide Range	Unit 2 Containment	This component is located in a high radiation area and is not easily accessible. For ALARA purposes, this component was not walked down. The component itself is inherently rugged and is judged not to be a concern. Anchorage screened by large available margin in existing design basis calculation.	No

Equipment ID	Description	Building	Discussion	Further action req'd?
2RC-570A	RV Head Vent Solenoid	Unit 2 Containment	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage, fall 2015.	Yes
2RC-570B	RV Head Vent Solenoid	Unit 2 Containment	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage, fall 2015.	Yes
2RC-575A	RV/T-1 PZR Vent Header to PRT Solenoid	Unit 2 Containment	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage fall 2015.	Yes
2RC-575B	RV/T-1 PZR Gas Vent to Cont. Standpipe Solenoid	Unit 2 Containment	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage, fall 2015.	Yes
2TE-00023	Incore Thermocouple at D-7	Unit 2 Containment	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.	No
2TE-00038	Incore Thermocouple at L-10	Unit 2 Containment	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.	No
2TE-451A	RC Loop B Cold Leg Temperature RTD	Unit 2 Containment	Item is inaccessible because it is in a LHRA. Equipment judged acceptable upon review of documentation and photo provided in A-46 SEWS SQ-001052 and by comparison to similar equipment (2TE-450C).	No

Equipment ID	Description	Building	Discussion	Further action req'd?
2TE-451C	RC Loop B Cold Leg Temperature RTD	Unit 2 Containment	Item is inaccessible because it is in a LHRA. Equipment judged acceptable upon review of documentation and photo provided in A-46 SEWS SQ-001056 and by comparison to similar equipment (2TE-450C).	No
C-601	Diesel Driven Fire Pump Control Panel	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes
D-600	Diesel Driven Fire Pump Battery Rack	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes
FP-3715	Diesel Fire Pump Relief Valve	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes
FP-448	Fire water header isolation	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes
FP-536	Fire water to SW cross connection	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes
P-35B	Diesel Driven Fire Pump	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes
P-35B-E	Diesel Driven Fire Pump Engine	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes
T-30	Diesel Fire Pump Fuel Tank	CWPH	Equipment not yet installed. Evaluation required after installation.	Yes

7.2 Planned Walkdown / Evaluation Schedule / Close Out

The schedule for performing the walkdowns for the inaccessible and late addition components as listed in Section 7.1 is during the Unit 2 Refueling Outage U2R34 schedule for the fall 2015. The screening and evaluation of these components will be complete within 90 days following the conclusion of the U2R34 refueling outage. The Commitments associated with these tasks are included in Section 8.4.

Equip ID	Description	Building	Discussion	Planned WD	Evaluation	Close Out
2RC-570A	RV Head Vent Solenoid	Unit 2 Contain.	Equipment added to ESEL after Unit 2 Containment walkdown.	U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
2RC-570B	RV Head Vent Solenoid	Unit 2 Contain.	Equipment added to ESEL after Unit 2 Containment walkdown.	U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
2RC-575A	RV/T-1 PZR Vent Header to PRT Solenoid	Unit 2 Contain.	Equipment added to ESEL after Unit 2 Containment walkdown.	U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
2RC-575B	RV/T-1 PZR Gas Vent to Cont. Standpipe Solenoid	Unit 2 Contain.	Equipment added to ESEL after Unit 2 Containment walkdown.	U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
C-601	Diesel Driven Fire Pump Control Panel	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
D-600	Diesel Driven Fire Pump Battery Rack	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
FP-3715	Diesel Fire Pump Relief Valve	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
FP-448	Fire water header isolation	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
FP-536	Fire water to SW cross connection	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
P-35B	Diesel Driven Fire Pump	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
P-35B-E	Diesel Driven Fire Pump Engine	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016
T-30	Diesel Fire Pump Fuel Tank	CWPH	Equipment not yet installed.	Prior to U2 Outage Fall 2015	4th QTR 2015	1st QTR 2016

8.0 ESEP Conclusions and Results

8.1 Supporting Information

PBNP has performed the ESEP as an interim action in response to the NRC's 50.54(f) letter [Ref. 1]. It was performed using the methodologies in the NRC endorsed guidance in EPRI 3002000704 [Ref. 2].

The ESEP provides an important demonstration of seismic margin and expedites plant safety enhancements through evaluations and potential near-term modifications of plant equipment that can be relied upon to protect the reactor core following beyond design basis seismic events.

The ESEP is part of the overall PBNP response to the NRC's 50.54(f) letter [1]. On March 12, 2014, NEI submitted to the NRC results of a study [Ref. 12] of seismic core damage risk estimates based on updated seismic hazard information as it applies to operating nuclear reactors in the Central and Eastern United States (CEUS). The study concluded that "site-specific seismic hazards show that there has not been an overall increase in seismic risk for the fleet of U.S. plants" based on the re-evaluated seismic hazards. As such, the "current seismic design of operating reactors continues to provide a safety margin to withstand potential earthquakes exceeding the seismic design basis."

The NRC's May 9, 2014 NTTF 2.1 Screening and Prioritization letter [Ref. 14] concluded that the "fleetwide seismic risk estimates are consistent with the approach and results used in the GI-199 safety/risk assessment." The letter also stated that "As a result, the staff has confirmed that the conclusions reached in GI-199 safety/risk assessment remain valid and that the plants can continue to operate while additional evaluations are conducted."

An assessment of the change in seismic risk for PBNP was included in the fleet risk evaluation submitted in the March 12, 2014 NEI letter [Ref. 12] therefore, the conclusions in the NRC's May 9 letter [Ref. 14] also apply to PBNP.

In addition, the March 12, 2014 NEI letter [Ref. 12] provided an attached "Perspectives on the Seismic Capacity of Operating Plants," which (1) assessed a number of qualitative reasons why the design of SSCs inherently contain margin beyond their design level, (2) discussed industrial seismic experience databases of performance of industry facility components similar to nuclear SSCs, and (3) discussed earthquake experience at operating plants.

The fleet of currently operating nuclear power plants was designed using conservative practices, such that the plants have significant margin to withstand large ground motions safely. This has been borne out for those plants that have actually experienced significant earthquakes. The seismic design process has inherent (and intentional) conservatisms which result in significant seismic margins within structures, systems and components (SSCs). These conservatisms are reflected in several key aspects of the seismic design process, including:

- Safety factors applied in design calculations
- Damping values used in dynamic analysis of SSCs

- Bounding synthetic time histories for in-structure response spectra calculations
- Broadening criteria for in-structure response spectra
- Response spectra enveloping criteria typically used in SSC analysis and testing applications
- Response spectra based frequency domain analysis rather than explicit time history based time domain analysis
- Bounding requirements in codes and standards
- Use of minimum strength requirements of structural components (concrete and steel)
- Bounding testing requirements, and
- Ductile behavior of the primary materials (that is, not crediting the additional capacity of materials such as steel and reinforced concrete beyond the essentially elastic range, etc.).

These design practices combine to result in margins such that the SSCs will continue to fulfill their functions at ground motions well above the SSE.

8.2 Identification of Planned Modifications

Insights from the ESEP identified the following four items where the HCLPF is below the RLGM and plant modifications will be made in accordance with EPRI 3002000704 [Ref. 2] to enhance the seismic capacity of the plant:

1. Masonry Wall 111-2/23 has a HCLPF below the RLGM and requires modification. This wall is located along the West side of the control room. The ESEL items affected by this wall are 2Y-01, 2Y-03, C-01, 1C-03, 1C-04, C-02, 2C-03, & 2C-04. The proposed modification includes the addition of a post at mid-span of the wall in order to reduce the span length of the wall, reducing in-plane wall stresses to acceptable levels.
2. Masonry Wall 111-4N/23 has a HCLPF below the RLGM and requires modification. This wall is located along the West side of the control room. The ESEL items affected by this wall are C-01, 1C-03, 1C-04, C-02, 2C-03, and 2C-04. The proposed modification includes the addition of a post at mid-span of the wall in order to reduce the span length of the wall, reducing in-plane wall stresses to acceptable levels.
3. The Work Control Center (WCC) block walls on the Turbine Deck have a HCLPF below the RLGM and requires modification. The ESEL items affected by this wall are LT-4038, LT-4041, T-24A, & T-24B. A modification (i.e. reinforcement of the block walls or relocation of soft targets away from the path of falling debris) must be installed such that falling debris will not affect the level transmitters or sensitive tubing attached to the Condensate Storage Tanks located below the WCC.

4. The evaluation of the anchorage for the Condensate Storage Tanks (T-24A and T-24B) is acceptable only after the installation of the approved anchorage modification (Engineering Change (EC) 279034, NRC Order Fukushima FLEX CSTs – Seismically Upgrade and Missile Protect Bottom 6 feet). The seismic upgrade of the CST was listed as a Pending Action in the Point Beach Overall Integrated Plan (OIP) in Response to the March 12, 2012, Commission Order EA-12-049 [Ref. 3]. Installation of anchorage modifications is scheduled to be completed prior to U2 Outage Fall 2015.

8.3 Modification Implementation Schedule

Plant modifications will be performed in accordance with the schedule identified in NEI letter dated April 9, 2013 [Ref 13], which states that plant modifications not requiring a planned refueling outage will be completed by December 2016 and modifications requiring a refueling outage will be completed within two planned refueling outages after December 31, 2014.

The modification of the three walls (Masonry Wall 111-2/23, Masonry Wall 111-4N/23 and Work Control Center (WCC) block walls) has not yet proceeded to a level of development to determine if a refueling outage is required to implement the modifications. As such, if a refueling outage is not required to implement these modifications, modification of the three walls will be complete no later than December, 31, 2016. If a refueling outage is required to implement, the modifications will be completed by the end of the second planned refueling outage after December 31, 2014. The second Unit 1 planned refueling outage after December 31, 2016 is U1R37 currently scheduled to end in the 4th quarter 2017 and the second Unit 2 planned refueling outage after December 31, 2014 is U2R35 scheduled to end 2nd quarter 2017.

8.4 Summary of Regulatory Commitments

Item	Commitment	Date
1	NextEra Energy Point Beach, LLC (NextEra) will complete walkdowns for the inaccessible and late addition components listed in Section 7.1 of this enclosure.	Restart of Unit 2 at the completion of its fall 2015 refueling outage.
2	NextEra will complete screening and evaluation of the inaccessible and late addition components listed in Section 7.1 of this enclosure.	Within 90 days following restart of Unit 2 at the completion of its fall 2015 refueling outage.
3	NextEra will provide the screening and High Confidence Low Probability of Failure (HCLPF) results for the inaccessible and late addition components listed in Section 7.1 of this enclosure to the NRC.	Within 120 days following restart of Unit 2 at the completion of its fall 2015 refueling outage.
4	NextEra will implement modification to Masonry Wall 111-2/23 to raise the HCLPF above the RLGM.	December 31, 2016 if the modification(s) do not require an outage on either unit, or the latter of the following: • Restart of Unit 1 at the completion of its fall 2017 refueling outage if the modification(s) require a Unit 1 outage, or Restart of Unit 2 at the completion of its spring 2017 refueling outage if the modification(s) require a Unit 2 outage.
5	NextEra will implement modification to Masonry Wall 111-4N/23 to raise the HCLPF above the RLGM.	December 31, 2016 if the modification(s) do not require an outage on either unit, or the latter of the following: Restart of Unit 1 at the completion of its fall 2017 refueling outage if the modification(s) require a Unit 1 outage, or Restart of Unit 2 at the completion of its spring 2017 refueling outage if the modification(s) require a Unit 2 outage.

6	NextEra will implement modification to Work Control Center (WCC) block walls to raise the HCLPF above the RLGM or relocation of soft targets away from the path of falling debris or protection of soft targets from falling debris.	December 31, 2016 if the modification(s) do not require an outage on either unit, or the latter of the following: Restart of Unit 1 at the completion of its fall 2017 refueling outage if the modification(s) require a Unit 1 outage, or Restart of Unit 2 at the completion of its spring 2017 refueling outage if the modification(s) require a Unit 2 outage.
7	NextEra will submit a letter to NRC confirming implementation of the above noted modification(s).	Within 60 days following completion of all above noted modifications.

9.0 References

1) NRC (E Leeds and M Johnson) Letter to All Power Reactor Licensees et al., “Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3 and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident,” March 12, 2012.

2) Seismic Evaluation Guidance: Augmented Approach for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1 – Seismic. EPRI, Palo Alto, CA: May 2013. 3002000704.

3) NextEra Energy Point Beach, LLC’s Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 22, 2013 (ML13053A401)
Updated by:
NextEra Energy Point Beach, LLC’s Third Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049) NRC 2014-0052 dated August 28, 2014

4) NRC 2014-0024, “NextEra Energy Point Beach, LLC, Seismic Hazard and Screening Report (CEUS Sites), Response NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident”, March 31, 2014

5) Nuclear Regulatory Commission, NUREG-1407, Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities, June 1991

6) Nuclear Regulatory Commission, Generic Letter No. 88-20 Supplement 4, Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities - 10CFR 50.54(f), June 1991

7) A Methodology for Assessment of Nuclear Power Plant Seismic Margin, Rev. 1, August 1991, Electric Power Research Institute, Palo Alto, CA. EPRI NP 6041

8) Methodology for Developing Seismic Fragilities, August 1991, EPRI, Palo Alto, CA.1994, TR-103959

9) {Plant Seismic Margin Assessment} (Not Used)

10) Calculation 14Q0224-C-002, Rev. 0, “HCLPF Evaluations for ESEP”.

11) Nuclear Regulatory Commission, NUREG/CR-0098, Development of Criteria for Seismic Review of Selected Nuclear Power Plants, published May 1978

12) Nuclear Energy Institute (NEI), A. Pietrangelo, Letter to D. Skeen of the USNRC, "Seismic Core Damage Risk Estimates Using the Updated Seismic Hazards for the Operating Nuclear Plants in the Central and Eastern United States", March 12, 2014

13) Nuclear Energy Institute (NEI), A. Pietrangelo, Letter to D. Skeen of the USNRC, "Proposed Path Forward for NTTF Recommendation 2.1: Seismic Reevaluations", April 9, 2013

14) NRC (E Leeds) Letter to All Power Reactor Licensees et al., "Screening and Prioritization Results Regarding Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(F) Regarding Seismic Hazard Re-Evaluations for Recommendation 2.1 of the Near-Term Task Force Review of Insights From the Fukushima Dai-Ichi Accident," May 9, 2014.

15) Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic. EPRI, Palo Alto, CA: February 2013. 1025287.

16) NRC (E Leeds) Letter to NEI (J Pollock), "Electric Power Research Institute Final Draft Report xxxxx, "Seismic Evaluation Guidance: Augmented Approach for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic," as an Acceptable Report 14Q0224-RPT-002 Revision 0 Attachment A Sheet A26 Preliminary for Owner's Review (11/14/14) Page 27 of 28 Alternative to the March 12, 2012, Information Request for Seismic Reevaluations," May 7, 2013

17) NTTF 2.3 Seismic Walkdown Submittals:

Seismic Walkdown Report, rev. 1, In Response to the 50.54(f) Information Request Regarding Fukushima Near-Term Task Force Recommendation 2.3: Seismic for the Point Beach Nuclear Plant Unit 1, NRC Docket No. 50-266, dated May 2014.

Seismic Walkdown Report, rev. 1, In Response to the 50.54(f) Information Request Regarding Fukushima Near-Term Task Force Recommendation 2.3: Seismic for the Point Beach Nuclear Plant Unit 2, NRC Docket No. 50-301, dated May 2014.

18) Point Beach Nuclear Plant Updated Final Safety Analysis Report (UFSAR), 2013

19) DG-C03, Revision 3, "Seismic Design Criteria Guideline"

20) Seismic Qualification Utilities Group (SQUG), "Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment", Rev. 2a

21) EPRI document 1019200, "Seismic Fragility Applications Guide Update"

ATTACHMENT A

NEXTERA ENERGY POINT BEACH, LLC
UNITS ONE AND TWO

EXPEDITED SEISMIC EVALUATION PROCESS (ESEP) REPORT

PBNP UNITS 1 AND 2
EXPEDITED SEISMIC EQUIPMENT LIST (ESEL)

TABLE A - UNITS 1 AND 2 EXPEDITED SEISMIC EQUIPMENT LIST

Tag ID	Description	Normal State	Desired State	Comments
	Turbine driven AFW pump & valves			
1P-29	Turbine-driven AFW pump	Standby	Operating	
2P-29	Turbine-driven AFW pump	Standby	Operating	
1AF-4006	SW supply to TDAFW pump	Closed	Open	
2AF-4006	SW supply to TDAFW pump	Closed	Open	
1AF-4000	TDAFW supply to B SG	Throttled	Throttle/Close	Only one SG will be used for decay heat removal and cooldown
1AF-4001	TDAFW supply to A SG	Throttled	Throttle/Close	Only one SG will be used for decay heat removal and cooldown
2AF-4000	TDAFW supply to B SG	Throttled	Throttle/Close	Only one SG will be used for decay heat removal and cooldown
2AF-4001	TDAFW supply to A SG	Throttled	Throttle/Close	Only one SG will be used for decay heat removal and cooldown
1AF-4002	TDAFW Recirc	Closed	Open/Close	Close when forward flow is adequate
2AF-4002	TDAFW Recirc	Closed	Open/Close	Close when forward flow is adequate
1MS-2018	A main steam isolation	Open	Close	Close to prevent uncontrolled cooldown - Fail closed valve
1MS-2017	B main steam isolation	Open	Close	Close to prevent uncontrolled cooldown - Fail closed valve

Tag ID	Description	Normal State	Desired State	Comments
2MS-2018	A main steam isolation	Open	Close	Close to prevent uncontrolled cooldown - Fail closed valve
2MS-2017	B main steam isolation	Open	Close	Close to prevent uncontrolled cooldown - Fail closed valve
1MS-5958	A SG blowdown isolation	Open	Close	Close to prevent loss of SG inventory - Fail closed valve
1MS-5959	B SG blowdown isolation	Open	Close	Close to prevent loss of SG inventory
2MS-5958	A SG blowdown isolation	Open	Close	Close to prevent loss of SG inventory
2MS-5959	B SG blowdown isolation	Open	Close	Close to prevent loss of SG inventory
1MS-2083	A SG Sample Isolation valve	Open	Close	Close to prevent loss of SG inventory
1MS-2084	B SG Sample Isolation valve	Open	Close	Close to prevent loss of SG inventory
2MS-2083	A SG Sample Isolation valve	Open	Close	Close to prevent loss of SG inventory
2MS-2084	B SG Sample Isolation valve	Open	Close	Close to prevent loss of SG inventory
RS-SA-09	U1 Radwaste Steam Trip valve	Open	Closed	Isolates non-seismic portion of steam supply piping
RS-SA-10	U2 Radwaste Steam Trip valve	Open	Closed	Isolates non-seismic portion of steam supply piping
1MS-2020	A Steam admission valve	Closed	Open	Only one SG will be used for decay heat removal and cooldown
1MS-2019	B Steam admission valve	Closed	Open	Only one SG will be used for decay heat removal and cooldown
2MS-2020	A Steam admission valve	Closed	Open	Only one SG will be used for decay heat removal and cooldown

Tag ID	Description	Normal State	Desired State	Comments
2MS-2019	B Steam admission valve	Closed	Open	Only one SG will be used for decay heat removal and cooldown
1MS-2082	TDAFW trip valve	Open	Open	Need the ability to re-open following low suction pressure trip
2MS-2082	TDAFW trip valve	Open	Open	Need the ability to re-open following low suction pressure trip
	SG Relief Valves			
1MS-2016	A SG atmospheric steam dump	Closed	Throttled	Local manual operation. Only one SG will be used for decay heat removal and cooldown
1MS-2015	B SG atmospheric steam dump	Closed	Throttled	Local manual operation. Only one SG will be used for decay heat removal and cooldown
2MS-2016	A SG atmospheric steam dump	Closed	Throttled	Local manual operation. Only one SG will be used for decay heat removal and cooldown
2MS-2015	B SG atmospheric steam dump	Closed	Throttled	Local manual operation. Only one SG will be used for decay heat removal and cooldown
1MS-2010	A SG safety valve	Closed	Open/Reseat	Expect lowest set safety valve to lift until ADV is manually opened
1MS-2005	B SG safety valve	Closed	Open/Reseat	Expect lowest set safety valve to lift until ADV is manually opened
2MS-2010	A SG safety valve	Closed	Open/Reseat	Expect lowest set safety valve to lift until ADV is manually opened
2MS-2005	B SG safety valve	Closed	Open/Reseat	Expect lowest set safety valve to lift until ADV is manually opened

Tag ID	Description	Normal State	Desired State	Comments
	Storage Tanks			
T-24A	CST	Intact	> 6 ft of water	
T-24B	CST	Intact normal level	> 6 ft of water	
1T-13	RWST	Intact normal level	Lower portion intact	
2T-13	RWST	Intact normal level	Lower portion intact	
1T-6A	BAST	Intact normal level	Intact normal level	Secondary connection for boric acid, primary is RWST
0T-6B	BAST	Intact normal level	Intact normal level	Secondary connection for boric acid, primary is RWST
2T-6C	BAST	Intact normal level	Intact normal level	Secondary connection for boric acid, primary is RWST
1T-34A	A Accumulator	Intact normal level	Intact normal level	Required for Mode 5 and 6 response
1T-34B	B Accumulator	Intact normal level	Intact normal level	Required for Mode 5 and 6 response
2T-34A	A Accumulator	Intact normal level	Intact normal level	Required for Mode 5 and 6 response
2T-34B	B Accumulator	Intact normal level	Intact normal level	Required for Mode 5 and 6 response
0T-30	Diesel Driven Fire Pump Fuel Oil Day Tank	Intact normal level	Intact normal level	
	RCS injection valves			
1SI-841A	Accumulator isolation valve	Open	Close	
1SI-841B	Accumulator isolation valve	Open	Close	
2SI-841A	Accumulator isolation valve	Open	Close	

Tag ID	Description	Normal State	Desired State	Comments
2SI-841B	Accumulator isolation valve	Open	Close	
1CV-1298	Regenerative HX outlet MOV	Open	Open	Need the ability to open the valve if closed
2CV-1298	Regenerative HX outlet MOV	Open	Open	Need the ability to open the valve if closed
1CV-1296	Aux charging	Closed	Open	AOV inside containment IA will not be available Valve lifts with a 248 psid
2CV-1296	Aux charging	Closed	Open	AOV inside containment IA will not be available Valve lifts with a 248 psid
1SI-835A	A Accumulator fill valve	Closed	Open	Required for Mode 5 and 6 response
1SI-835B	B Accumulator fill valve	Closed	Open	Required for Mode 5 and 6 response
2SI-835A	A Accumulator fill valve	Closed	Open	Required for Mode 5 and 6 response
2SI-835B	B Accumulator fill valve	Closed	Open	Required for Mode 5 and 6 response
	RCS letdown path valves			
1RC-570A	RV Head Vent Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown
1RC-570B	RV Head Vent Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown
1RC-575A	RV/T-1 PZR Vent Header to PRT Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown
1RC-575B	RV/T-1 PZR Gas Vent to Cont. Standpipe Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown
2RC-570A	RV Head Vent Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown

Tag ID	Description	Normal State	Desired State	Comments
2RC-570B	RV Head Vent Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown
2RC-575A	RV/T-1 PZR Vent Header to PRT Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown
2RC-575B	RV/T-1 PZR Gas Vent to Cont. Standpipe Solenoid	Closed	Open	Letdown path for boration prior to asymmetric cooldown
	RCS boundary CI valves			
1SC-951	Pressurizer Steam Sample	Closed	Closed	
1SC-953	Pressurizer Liquid Sample	Closed	Closed	
1SC-955	RCS Hot Leg Sample	Open	Closed	
2SC-951	Pressurizer Steam Sample	Closed	Closed	
2SC-953	Pressurizer Liquid Sample	Closed	Closed	
2SC-955	RCS Hot Leg Sample	Open	Closed	
1CV-371	Letdown Isolation valve	Open	Closed	
2CV-371	Letdown Isolation valve	Open	Closed	
1CV-313A	RCP Seal Return Isolation	Open	Closed	
2CV-313A	RCP Seal Return Isolation	Open	Closed	
	Batteries			
D-05	SR Station Battery (A, Red)	In Service	In Service	
D-06	SR Station Battery (B, Blue)	In Service	In Service	
D-105	SR Station Battery (A, White)	In Service	In Service	

Tag ID	Description	Normal State	Desired State	Comments
D-106	SR Station Battery (B, Yellow)	In Service	In Service	
D-305	SR Station Battery (Spare)	Standby	In Service	DC Load Management
	DC distribution panels			
D-01	D-05 Battery Bus (A, Red)	In Service	In Service	
D-02	D-06 Battery Bus (B, Blue)	In Service	In Service	
D-03	D-105 Battery Bus (A, White)	In Service	In Service	1DY-03
D-04	D-106 Battery Bus (B, Yellow)	In Service	In Service	2DY-04
D-11	DC Distribution (A, Red)	In Service	In Service	1DY-01, 1MS-2015, 1AF-4001, 1P-29 Control Pnl. 1C-328, D-16
D-12	DC Distribution (A, Red)	In Service	In Service	2DY-01, D-22
D-13	DC Distribution (B, Blue)	In Service	In Service	2MS-2020, 2AF-4000, 2P-29 Control Pnl. 2C-328, D-18
D-14	DC Distribution (B, Blue)	In Service	In Service	1C-20, 2C-20, (U1 and U2 Head Vent SOVs)
D-16	DC Distribution (A, Red)	In Service	In Service	1C-03 (1AF-4001 indication), 1C-04 (U1 PORV), C-01 (1SI 835A&B)
D-18	DC Distribution (B, Blue)	In Service	In Service	2C-03 (2AF-4000 indication), 2C-04 (U2 PORV), C-01 (2SI 835A&B)
D-21	DC Distribution (B, Blue)	In Service	In Service	1C-04 (U1 PORV)
D-22	DC Distribution (A, Red)	In Service	In Service	2C-04 (U2 PORV)
D-26	DC Distribution (A, Red)	In Service	In Service	1C-20, 2C-20, (U1 and U2 Head Vent SOVs)
D-27	DC Distribution (B, Blue)	In Service	In Service	D-21

Tag ID	Description	Normal State	Desired State	Comments
D-63	DC Distribution (A, White)	In Service	In Service	1MS-2020, 1AF-4000, 1AF-4006, 1MS-2082, 1AF-4002-S, 1P-29 Control Pnl. 1C-328
D-64	DC Distribution (B, Yellow)	In Service	In Service	2MS-2019, 2AF-4001, 2AF-4006, 2MS-2082, 2AF-4002-S, 2P-29 Control Pnl. 2C-328
D-301	Battery Switching Bus	Standby	In Service	DC Load Management
D-302	Battery Switching Bus	Standby	In Service	DC Load Management
	DC MCCs / Switchgear			
	Vital AC distribution panels			
1B-03	A Train 480V vital bus	Normal power supply	Power via portable diesel generator	1B-32, 1B-39
1B-04	B Train 480V vital bus	Normal power supply	Power via portable diesel generator	1B-42, 1B-49
2B-03	A Train 480V vital bus	Normal power supply	Power via portable diesel generator	2B-32, 2B-39
2B-04	B Train 480V vital bus	Normal power supply	Power via portable diesel generator	2B-42, 2B-49
1B-32	A Train 480V vital motor control center	Normal power supply	Power via portable diesel generator	For 1B42-3212H Contactor, 1SI-841A
1B-42	B Train 480V vital motor control center	Normal power supply	Power via portable diesel generator	For 1SI-841B

Tag ID	Description	Normal State	Desired State	Comments
2B-32	A Train 480V vital motor control center	Normal power supply	Power via portable diesel generator	For 2SI-841A
2B-42	B Train 480V vital motor control center	Normal power supply	Power via portable diesel generator	For 2B42-4212B Contactor, 2SI-841B
1B-39	480V motor control center	Normal power supply	Power via portable diesel generator	For D-07 battery charger
2B-49	480V motor control center	Normal power supply	Power via portable diesel generator	ForD-08 battery charger
2B-39	480V motor control center	Normal power supply	Power via portable diesel generator	ForD-107 and D-09 battery charger
1B-49	480V motor control center	Normal power supply	Power via portable diesel generator	For D-108 and D-09 battery charger
1B42-3212H	Battery Charger Contactor	Open	Closed	ForD-109 battery charger
2B42-4212B	Battery Charger Contactor	Open	Closed	ForD-109 battery charger
2B4212B-B811M	Battery Charger D-109 Transfer Switch	To 2B42	To 2B42	ForD-109 battery charger
1B42-391	Battery Charge Contactor	Open	Closed	For D-07 battery charger
1B42-491	Battery Charge Contactor	Open	Closed	For D-09 battery charger
1B42-494	Battery Charge Contactor	Open	Closed	For D-108 battery charger

Tag ID	Description	Normal State	Desired State	Comments
2B42-391	Battery Charge Contactor	Open	Closed	For D-09 battery charger
2B42-394	Battery Charge Contactor	Open	Closed	For D-107 battery charger
2B42-491	Battery Charge Contactor	Open	Closed	For D-08 battery charger
	Battery chargers			
D-07	Battery charger	Normal power supply	Power via portable diesel generator	Desire flexibility to use any of the battery chargers
D-08	Battery charger	Normal power supply	Power via portable diesel generator	Desire flexibility to use any of the battery chargers
D-09	Battery charger	Normal power supply	Power via portable diesel generator	Desire flexibility to use any of the battery chargers
D-107	Battery charger	Normal power supply	Power via portable diesel generator	Desire flexibility to use any of the battery chargers
D-108	Battery charger	Normal power supply	Power via portable diesel generator	Desire flexibility to use any of the battery chargers
D-109	Battery charger	Normal power supply	Power via portable diesel generator	Desire flexibility to use any of the battery chargers
	Inverters			
1DY-01	U1 Instrument Inverter (Red)	In Service	In Service	
2DY-01	U2 Instrument Inverter (Red)	In Service	In Service	

Tag ID	Description	Normal State	Desired State	Comments
1DY-03	U1 Instrument Inverter (White)	In Service	In Service	
2DY-04	U2 Instrument Inverter (Yellow)	In Service	In Service	
DY-0A	Spare Inverter (Red)	Stand By		Backs up normal inverters
DY-0C	Spare Inverter (White)	Stand By		Backs up normal inverters
DY-0D	Spare Inverter (Yellow)	Stand By		Backs up normal inverters
DY-13	Alternate Shutdown Inverter	In Service	Re-align	
	Instrument Racks			
1Y-01	Instrument Distribution Pnl (Red)	In Service	In Service	
1Y-101	Instrument Distribution Pnl (Red)	In Service	In Service	
2Y-01	Instrument Distribution Pnl (Red)	In Service	In Service	
2Y-101	Instrument Distribution Pnl (Red)	In Service	In Service	
1Y-03	Instrument Distribution Pnl (White)	In Service	In Service	
1Y-103	Instrument Distribution Pnl (White)	In Service	In Service	
2Y-04	Instrument Distribution Pnl (Yellow)	In Service	In Service	
2Y-104	Instrument Distribution Pnl (Yellow)	In Service	In Service	
1C-170	Red Spec 200 Instrument Cabinet	In Service	In Service	
1C-171B	White Spec 200 Instrument Cabinet	In Service	In Service	
2C-170	Red Spec 200 Instrument Cabinet	In Service	In Service	

Tag ID	Description	Normal State	Desired State	Comments
2C-173B	Yellow Spec 200 Instrument Cabinet	In Service	In Service	
1C-112	Control Channel I Panel (Red)	In Service	In Service	
1C-114	Control Channel II Panel (White)	In Service	In Service	
2C-112	Control Channel I Panel (Red)	In Service	In Service	
2C-117	Control Channel IV Panel (Yellow)	In Service	In Service	
1C-171A	White Spec 200 Instrument Cabinet	In Service	In Service	
2C-173A	Yellow Spec 200 Instrument Cabinet	In Service	In Service	
1C-111	Control Channel I Panel (Red)	In Service	In Service	
1C-113	Control Channel II Panel (White)	In Service	In Service	
2C-111	Control Channel I Panel (Red)	In Service	In Service	
1C-109	SI And Auxiliary Coolant Sys Panel	In Service	In Service	
1C-129	RCS And SIS Panel	In Service	In Service	
2C-109	SI And Auxiliary Coolant Sys Panel	In Service	In Service	
1C-132	1N-32 Source Range	De-energized	In Service	
1C-133	1N-31 Source Range	De-energized	In Service	
2C-133	2N-31 Source Range	De-energized	In Service	
1C-205		Normal	Re-align	

Tag ID	Description	Normal State	Desired State	Comments
2C-205		Normal	Re-align	
C-207		Normal	Re-align	
	Transmitters			
1LT-460A	1HX-1A SG WR Level Transmitter	In Service	In Service	
1LT-460B	1HX-1A SG WR Level Transmitter	In Service	In Service	
1LT-470A	1HX-1B SG WR Level Transmitter	In Service	In Service	
2LT-460A	2HX-1A SG WR Level Transmitter	In Service	In Service	
2LT-470A	2HX-1B SG WR Level Transmitter	In Service	In Service	
2LT-470B	2HX-1B SG WR Level Transmitter	In Service	In Service	
1PT-468	HX-1A SG Steam Pressure Transmitter	In Service	In Service	
1PT-469	HX-1A SG Steam Pressure Transmitter	In Service	In Service	
1PT-483	HX-1B SG Steam Pressure Transmitter	In Service	In Service	
2PT-468	HX-1A SG Steam Pressure Transmitter	In Service	In Service	
2PT-479	HX-1B SG Steam Pressure Transmitter	In Service	In Service	
2PT-483	HX-1B SG Steam Pressure Transmitter	In Service	In Service	
1FT-4036	Aux Feedwater to 1HX-1A SG	In Service	In Service	
1FT-4002	1P-29 AFP Discharge Flow	In Service	In Service	

Tag ID	Description	Normal State	Desired State	Comments
2FT-4037	Aux Feedwater To 2HX-1B SG	In Service	In Service	
2FT-4002	2P-29 AFP Discharge Flow	In Service	In Service	
LT-4038	T-24A CST Level Transmitter	In Service	In Service	
LT-4041	T-24B CST Level Transmitter	In Service	In Service	
1PT-420A	U1 RC Loop A Intermediate Leg WR Press	In Service	In Service	
1PT-420C	U1 RC Loop A Hot Leg WR Pressure	In Service	In Service	
2PT-420B	U2 RC Loop B Intermediate Leg WR Press	In Service	In Service	
2PT-420C	U2 RC Loop A Hot Leg WR Pressure	In Service	In Service	
1LT-426	1T-1 Pzr NR Level Transmitter	In Service	In Service	
1LT-427	1T-1 Pzr NR Level Transmitter	In Service	In Service	
2LT-426	2T-1 Pzr NR Level Transmitter	In Service	In Service	
1LT-494	R-1 RV Wide Range Level	In Service	In Service	
1LT-496	R-1 RV Narrow Range Level	In Service	In Service	
2LT-495	R-1 RV Wide Range Level	In Service	In Service	
2LT-497	R-1 RV Narrow Range Level	In Service	In Service	

Tag ID	Description	Normal State	Desired State	Comments
1TE-00037	Incore Thermocouple at K-11	In Service	In Service	
1TE-00019	Incore Thermocouple at B-5	In Service	In Service	
2TE-00023	Incore Thermocouple at D-7	In Service	In Service	
2TE-00038	Incore Thermocouple at L-10	In Service	In Service	
1TE-450A	RC Loop A Cold Leg Temperature RTD	In Service	In Service	
1TE-451C	RC Loop B Cold Leg Temperature RTD	In Service	In Service	
1TE-450D	RC Loop A Hot Leg Temperature RTD	In Service	In Service	
1TE-451B	RC Loop B Hot Leg Temperature RTD	In Service	In Service	
2TE-450C	RC Loop A Cold Leg Temperature RTD	In Service	In Service	
2TE-451A	RC Loop B Cold Leg Temperature RTD	In Service	In Service	
2TE-451C	RC Loop B Cold Leg Temperature RTD	In Service	In Service	
2TE-450B	RC Loop A Hot Leg Temperature RTD	In Service	In Service	
2TE-451B	RC Loop B Hot Leg Temperature RTD	In Service	In Service	
2TE-451D	RC Loop B Hot Leg Temperature RTD	In Service	In Service	
1PT-940	T-34A SI Accumulator Pressure	In Service	In Service	
1PT-941	T-34A SI Accumulator Pressure	In Service	In Service	

Tag ID	Description	Normal State	Desired State	Comments
1PT-936	T-34B SI Accumulator Pressure	In Service	In Service	
1PT-937	T-34B SI Accumulator Pressure	In Service	In Service	
2PT-940	T-34A SI Accumulator Pressure	In Service	In Service	
2PT-936	T-34B SI Accumulator Pressure	In Service	In Service	
1N-31	U1 NI Source Range	De-energized	In Service	
1N-32	U1 NI Source Range	De-energized	In Service	
1N-40	U1 NI Wide Range	In Service	Re-align	
2N-31	U2 Ni Source Range	De-energized	In Service	
2N-40	U2 NI Wide Range	In Service	Re-align	
1PT-968	U1 Containment WR Pressure	In Service	In Service	
2PT-968	U2 Containment WR Pressure	In Service	In Service	
2PT-969	U2 Containment WR Pressure	In Service	In Service	
1TE-3292	El 66' U1 Containment Temperature	In Service	In Service	
2TE-3293	El 66' U2 Containment Temperature	In Service	In Service	
	Fire Protection			
P-35B	Diesel Driven Fire Pump	Standby	Operating	Replacement and seismic upgrade reference EC259770
P-35B-E	Diesel Driven Fire Pump Engine	Standby	Operating	Replacement and seismic upgrade reference EC259770

Tag ID	Description	Normal State	Desired State	Comments
FP-448	Fire water header isolation	Open	Close	New valve reference EC259770
FP-536	Fire water to SW cross connection	Close	Open	New valve reference EC259770
FP-3715	Diesel Fire Pump Relief Valve	Close	Open as required	Replacement and seismic upgrade reference EC259770
T-30	Diesel Fire Pump Fuel Tank	Intact normal level	Intact normal level	Replacement and seismic upgrade reference EC259770
D-600	Diesel Driven Fire Pump Battery Rack	In Service	In Service	Replacement and seismic upgrade reference EC259770
C-601	Diesel Driven Fire Pump Control Panel	In Service	In Service	Replacement and seismic upgrade reference EC259770
	Service Water			
1SW-2880	Unit 1 Turbine Hall Supply	Open	Close	MOV will be hand cranked closed
2SW-2880	Unit 2 Turbine Hall Supply	Open	Close	MOV will be hand cranked closed
SW-4478	Water Treatment	Open	Close	MOV will be hand cranked closed
SW-2817	Water Treatment	Open	Close	MOV will be hand cranked closed
SW-4479	Service and Aux. Building	Open	Close	MOV will be hand cranked closed
SW-2816	Service and Aux. Building	Open	Close	MOV will be hand cranked closed
	Relay/Contactor			
1-62/04044	1MS-2082, 1P-29 Trip/Throttle Valve	Functional	Functional	Relay would seal in if contacts bounce close. This would result in tripping P-29 Trip/Throttle valve 1MS-2082 closed. Valve could then be manually reset from the CR. (MS -2082 would trip closed on any TDR momentary contact closure and the TDR

Tag ID	Description	Normal State	Desired State	Comments
				would not have to seals in)
1SMS-2019	1MS-2019, 1P-29 Steam Supply MOV	Functional	Functional	If contactor contacts bounced close when the valve is full open, the contactor would seal in and fully close the valve. The valve would then automatically re-open.
1SMS-2020	1MS-2020, 1P-29 Steam Supply MOV	Functional	Functional	If contactor contacts bounced close when the valve is full open, the contactor would seal in and fully close the valve. The valve would then automatically re-open.
1SAF-4006	1AF-4006, 1P29 SW Suction MOV	Functional	Functional	If contactor contacts bounced close when the valve is full open, the contactor would seal in and fully close the valve. The valve would stay open until manually closed using the control switch. This may result in CST inventory wasted via the SW overboard path.
1-62/4044C	1AF-4006, 1P29 SW Suction MOV	Functional	Functional	This relay does not seal in, but a momentary contact closure would result in the open contactor sealing in causing the valve to fully open and remain open until manually closed using the control switch. This may result in CST inventory wasted via the SW overboard path.
1-4077LLL-X	1AF-4006, 1P29 SW Suction MOV 2AF-4006, 2P29 SW Suction MOV	Functional	Functional	This relay does not seal in, but a momentary contact closure would result in the open contactor sealing in causing the valve to fully open and remain open until manually closed using the control switch. This may result in CST inventory wasted via the

Tag ID	Description	Normal State	Desired State	Comments
				SW overboard path.
2-4078LLL-X	1AF-4006, 1P29 SW Suction MOV 2AF-4006, 2P29 SW Suction MOV	Functional	Functional	This relay does not seal in, but a momentary contact closure would result in the open contactor sealing in causing the valve to fully open and remain open until manually closed using the control switch. This may result in CST inventory wasted via the SW overboard path.
1SAF-4067	1AF-4067, 2P53 SW Suction MOV	Functional	Functional	If contactor contacts bounced close when the valve is full open, the contactor would seal in and fully close the valve. The valve would stay open until manually closed using the control switch. This may result in CST inventory wasted via the SW overboard path.
2-62/04044	2MS-2082, 2P-29 Trip/Throttle Valve	Functional	Functional	Relay would seal in if contacts bounce close. This would result in tripping P-29 Trip/Throttle valve 2MS-2082 closed. Valve could then be manually reset from the CR. (MS -2082 would trip closed on any TDR momentary contact closure and the TDR would not have to seals in)
2SMS-2019	2MS-2019, 2P-29 Steam Supply MOV	Functional	Functional	If contactor contacts bounced close when the valve is full open, the contactor would seal in and fully close the valve. The valve would then automatically re-open.
2SMS-2020	2MS-2020, 2P-29 Steam Supply MOV	Functional	Functional	If contactor contacts bounced close when the valve is full open, the contactor would seal in and fully close the valve. The valve would then

Tag ID	Description	Normal State	Desired State	Comments
				automatically re-open.
2SAF-4006	2AF-4006, 2P29 SW Suction MOV	Functional	Functional	This relay does not seal in, but a momentary contact closure would result in the open contactor sealing in causing the valve to fully open and remain open until manually closed using the control switch. This may result in CST inventory wasted via the SW overboard path.
2-62/4044C	2AF-4006, 2P29 SW Suction MOV	Functional	Functional	This relay does not seal in, but a momentary contact closure would result in the open contactor sealing in causing the valve to fully open and remain open until manually closed using the control switch. This may result in CST inventory wasted via the SW overboard path.
2SAF-4067	2AF-4067, 2P53 SW Suction MOV	Functional	Functional	If contactor contacts bounced close when the valve is full open, the contactor would seal in and fully close the valve. The valve would stay open until manually closed using the control switch. This may result in CST inventory wasted via the SW overboard path.
	Rack/Panel			
1C-03	Main Control Board	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.
1C-04	Main Control Board	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.

Tag ID	Description	Normal State	Desired State	Comments
C-01	Main Control Board	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.
C-02	Main Control Board	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.
2C-03	Main Control Board	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.
2C-04	Main Control Board	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.
1C-20	ASIP Panel	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.
2C-20	ASIP Panel	In Service	In Service	Contains Various Circuit Breakers. Some controls and/or indicators used for FLEX.
1C-197	P-29 AFP SUCTION PRESSURE CONTROL PANEL	In Service	In Service	Contains seal in relay or contactor.
1SMS-2019	Motor Starter	In Service	In Service	Contains seal in relay or contactor.
1SMS-2020	Motor Starter	In Service	In Service	Contains seal in relay or contactor.
1SAF-4006	Motor Starter	In Service	In Service	Contains seal in relay or contactor.
1SAF-4067	Motor Starter	In Service	In Service	Contains seal in relay or contactor.

Tag ID	Description	Normal State	Desired State	Comments
2C-197	P-29 AFP SUCTION PRESSURE CONTROL PANEL	In Service	In Service	Contains seal in relay or contactor.
2SMS-2019	Motor Starter	In Service	In Service	Contains seal in relay or contactor.
2SMS-2020	Motor Starter	In Service	In Service	Contains seal in relay or contactor.
2SAF-4006	Motor Starter	In Service	In Service	Contains seal in relay or contactor.
2SAF-4067	Motor Starter	In Service	In Service	Contains seal in relay or contactor.

ATTACHMENT B

NEXTERA ENERGY POINT BEACH, LLC
UNITS ONE AND TWO

EXPEDITED SEISMIC EVALUATION
PROCESS (ESEP) REPORT

ESEP HCLPF VALUES AND FAILURE MODES TABULATION

Note: Refer to section 6.6 for discussion regarding this table of ESEL HCLPF values.

Equipment ID	Failure Mode	HCLPF	Additional Discussion
0DY-13	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
0T-30	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
0T-6B	Anchorage	≥ 0.229	
1-4077LLL-X	Functional Failure	≥ 0.229	
1-62/4044C	Functional Failure	≥ 0.229	
1-62-4044	Functional Failure	≥ 0.229	
1AF-4000	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
1AF-4001	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
1AF-4002	Screened	≥ 0.229	
1AF-4006	Screened	≥ 0.229	
1B-03	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1B-04	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1B-32	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1B-39	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1B391	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1B-42	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1B42-3212H	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1B-49	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1B491	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1B494	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1C-03	Systems Interaction	0.139	Adjacent block walls (Wall # 111-4N/23 & 111-2/23) control the equipment HCLPF capacity. Modification of block wall is required.
1C-04	Systems Interaction	0.139	Adjacent block walls (Wall # 111-4N/23 & 111-2/23) control the equipment HCLPF capacity. Modification of block wall is required.
1C-109	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1C-111	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1C-112	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1C-113	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1C-114	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.

Equipment ID	Failure Mode	HCLPF	Additional Discussion
1C-129	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-132	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-133	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-170	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-171A	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-171B	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-197	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-20	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1C-205	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1CV-1296	Screened	≥ 0.229	
1CV-1298	Equipment Capacity	≥ 0.229	Operator weight & offset do not meet the criteria of NP-6041. Valve yoke stresses have been shown to be acceptable for the RLGM.
1CV-313A	Screened	≥ 0.229	
1CV-371	Screened	≥ 0.229	
1DY-01	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1DY-03	Anchorage	≥ 0.229	
1FT-4002	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1FT-4036	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1LT-426	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1LT-427	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1LT-460A	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1LT-460B	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1LT-470A	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1LT-494	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1LT-496	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1MS-2005	Screened	≥ 0.229	
1MS-2010	Screened	≥ 0.229	
1MS-2015	Screened	≥ 0.229	
1MS-2016	Screened	≥ 0.229	
1MS-2017	Screened	≥ 0.229	
1MS-2018	Screened	≥ 0.229	
1MS-2019	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
1MS-2020	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
1MS-2082	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.

Equipment ID	Failure Mode	HCLPF	Additional Discussion
1MS-2083	Screened	≥ 0.229	
1MS-2084	Screened	≥ 0.229	
1MS-5958	Screened	≥ 0.229	
1MS-5959	Screened	≥ 0.229	
1N-31	Screened	≥ 0.229	1N-31 is a drawer in cabinet 1C-133. See 1C-133 for acceptability of anchorage for cabinet 1C-133.
1N-32	Screened	≥ 0.229	1N-32 is a drawer in cabinet 1C-132. See 1C-132 for acceptability of anchorage for cabinet 1C-132.
1N-40	Screened	≥ 0.229	This component is located in a high radiation area and is not easily accessible. For ALARA purposes, this component was not walked down. The component itself is inherently rugged and is judged not to be a concern. Anchorage screened by large available margin in existing design basis calculation.
1P-29	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-420A	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1PT-420C	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1PT-468	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-469	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-483	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-936	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-937	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-940	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-941	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
1PT-968	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1RC-570A	Screened	≥ 0.229	
1RC-570B	Screened	≥ 0.229	
1RC-575A	Screened	≥ 0.229	
1RC-575B	Screened	≥ 0.229	
1SAF-4006	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1SAF-4006 (Relay)	Functional Failure	≥ 0.229	
1SAF-4067	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1SAF-4067 (Relay)	Functional Failure	≥ 0.229	
1SC-951	Screened	≥ 0.229	

Equipment ID	Failure Mode	HCLPF	Additional Discussion
1SC-953	Screened	≥ 0.229	Walkdown identified missing bolts in the operator support anchorage. AR 01998370 was written to address the issue. One bolt has been installed and the AR has been closed. One bolt is sufficient to prevent movement of the operator relative to the tube.
1SC-955	Screened	≥ 0.229	
1SI-835A	Screened	≥ 0.229	
1SI-835B	Screened	≥ 0.229	
1SI-841A	Screened	≥ 0.229	
1SI-841B	Screened	≥ 0.229	
1SMS-2019	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1SMS-2019 (Relay)	Functional Failure	≥ 0.229	
1SMS-2020	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1SMS-2020 (Relay)	Functional Failure	≥ 0.229	
1SW-2880	Screened	≥ 0.229	
1T-13	Anchorage	≥ 0.229	The evaluation of the RWSTs uses alternate criteria in determining the RLGM for the tank as discussed in Section 5.2. The HCLPF listed is for comparison to the other equipment HCLPF values which used the typical RLGM (1.91 x SSE).
1T-34A	Anchorage	≥ 0.229	
1T-34B	Anchorage	≥ 0.229	
1T-6A	Anchorage	≥ 0.229	
1TE-00019	Screened	≥ 0.229	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.
1TE-00037	Screened	≥ 0.229	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.
1TE-3292	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1TE-450A	Screened	≥ 0.229	
1TE-450D	Screened	≥ 0.229	
1TE-451B	Screened	≥ 0.229	
1TE-451C	Screened	≥ 0.229	
1Y-01	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.

Equipment ID	Failure Mode	HCLPF	Additional Discussion
1Y-03	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
1Y-101	Screened	≥ 0.229	Anchorage screened by engineering judgment.
1Y-103	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2-4078LLL-X	Functional Failure	≥ 0.229	
2-62/4044C	Functional Failure	≥ 0.229	
2-62-4044	Functional Failure	≥ 0.229	
2AF-4000	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
2AF-4001	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
2AF-4002	Screened	≥ 0.229	
2AF-4006	Screened	≥ 0.229	
2B-03	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2B-04	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2B-32	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2B-39	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2B391	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
2B394	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2B-42	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2B4212B-B811M	Anchorage	≥ 0.229	
2B42-4212B	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2B-49	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2B491	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2C-03	Systems Interaction	0.139	Adjacent block walls (Wall # 111-4N/23 & 111-2/23) control the equipment HCLPF capacity. Modification of block wall is required.
2C-04	Systems Interaction	0.139	Adjacent block walls (Wall # 111-4N/23 & 111-2/23) control the equipment HCLPF capacity. Modification of block wall is required.
2C-109	Anchorage	0.229	The anchorage has a lower HCLPF value than the adjacent block wall. As such, adjacent block wall does not control the equipment HCLPF capacity.
2C-111	Anchorage	0.229	The anchorage has a lower HCLPF value than the adjacent block wall. As such, adjacent block wall does not control the equipment HCLPF capacity.
2C-112	Anchorage	0.229	The anchorage has a lower HCLPF value than the adjacent block wall. As such, adjacent block wall does not control the equipment HCLPF capacity.
2C-117	Anchorage	≥ 0.229	
2C-133	Anchorage	≥ 0.229	

Equipment ID	Failure Mode	HCLPF	Additional Discussion
2C-170	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2C-173A	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2C-173B	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2C-197	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2C-20	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2C-205	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2CV-1296	Screened	≥ 0.229	
2CV-1298	Equipment Capacity	≥ 0.229	Operator weight & offset do not meet the criteria of NP-6041. Valve yoke stresses have been shown to be acceptable for the RLGM.
2CV-313A	Screened	≥ 0.229	
2CV-371	Screened	≥ 0.229	
2DY-01	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2DY-04	Anchorage	≥ 0.229	
2FT-4002	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2FT-4037	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2LT-426	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2LT-460A	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2LT-470A	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2LT-470B	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2LT-495	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2LT-497	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2MS-2005	Screened	≥ 0.229	
2MS-2010	Screened	≥ 0.229	
2MS-2015	Screened	≥ 0.229	
2MS-2016	Screened	≥ 0.229	
2MS-2017	Screened	≥ 0.229	
2MS-2018	Screened	≥ 0.229	
2MS-2019	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
2MS-2020	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
2MS-2082	Screened	≥ 0.229	Operator offset acceptable based on a comparison to existing SQUG documentation & analysis.
2MS-2083	Screened	≥ 0.229	
2MS-2084	Screened	≥ 0.229	
2MS-5958	Screened	≥ 0.229	
2MS-5959	Screened	≥ 0.229	
2N-31	Anchorage	≥ 0.229	

Equipment ID	Failure Mode	HCLPF	Additional Discussion
2N-40	Screened	≥ 0.229	This component is located in a high radiation area and is not easily accessible. For ALARA purposes, this component was not walked down. The component itself is inherently rugged and is judged not to be a concern. Anchorage screened by large available margin in existing design basis calculation.
2P-29	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2PT-420B	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2PT-420C	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2PT-468	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2PT-479	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2PT-483	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2PT-936	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2PT-940	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
2PT-968	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2PT-969	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2RC-570A	TBD	TBD	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage.
2RC-570B	TBD	TBD	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage.
2RC-575A	TBD	TBD	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage.
2RC-575B	TBD	TBD	Equipment added to ESEL after Unit 2 Containment walkdown. Equipment is scheduled to be walked down during next Unit 2 outage.
2SAF-4006	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
2SAF-4006 (Relay)	Functional Failure	≥ 0.229	
2SAF-4067	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
2SAF-4067 (Relay)	Functional Failure	≥ 0.229	
2SC-951	Screened	≥ 0.229	
2SC-953	Screened	≥ 0.229	Walkdown identified missing bolts in the operator support anchorage. AR 01955412 was written to address the issue. The bolts have been installed and the AR has been closed.
2SC-955	Screened	≥ 0.229	
2SI-835A	Screened	≥ 0.229	
2SI-835B	Screened	≥ 0.229	

Equipment ID	Failure Mode	HCLPF	Additional Discussion
2SI-841A	Screened	≥ 0.229	
2SI-841B	Screened	≥ 0.229	
2SMS-2019	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
2SMS-2019 (Relay)	Functional Failure	≥ 0.229	
2SMS-2020	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2SMS-2020 (Relay)	Functional Failure	≥ 0.229	
2SW-2880	Screened	≥ 0.229	
2T-13	Anchorage	≥ 0.229	The evaluation of the RWSTs uses alternate criteria in determining the RLGM for the tank as discussed in Section 5.2. The HCLPF listed is for comparison to the other equipment HCLPF values which used the typical RLGM (1.91 x SSE).
2T-34A	Anchorage	≥ 0.229	
2T-34B	Anchorage	≥ 0.229	
2T-6C	Anchorage	≥ 0.229	
2TE-00023	Screened	≥ 0.229	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.
2TE-00038	Screened	≥ 0.229	For ALARA purposes, this item was not walked down. Based upon the inherent seismic ruggedness of thermocouples and by comparison to a number of evaluations for similar thermocouples (see 1TE-450A, 1TE-450D, 1TE-451B, 1TE-451C, 2TE-450B, 2TE-450C, 2TE-451A, 2TE-451B, 2TE-451C, and 2TE-451D), the adequacy of this equipment is judged to be acceptable. No further action is required.
2TE-3293	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2TE-450B	Screened	≥ 0.229	
2TE-450C	Screened	≥ 0.229	
2TE-451A	Screened	≥ 0.229	Item is inaccessible because it is in a LHRA. Equipment judged acceptable upon review of documentation and photo provided in A-46 SEWS SQ-001052 and by comparison to similar equipment (2TE-450C).
2TE-451B	Screened	≥ 0.229	
2TE-451C	Screened	≥ 0.229	Item is inaccessible because it is in a LHRA. Equipment judged acceptable upon review of documentation and photo provided in A-46 SEWS SQ-001056 and by comparison to similar equipment (2TE-450C).
2TE-451D	Screened	≥ 0.229	
2Y-01	Systems Interaction	0.139	Adjacent block wall (Wall # 111-2/23) controls the equipment HCLPF capacity. Modification is required.

Equipment ID	Failure Mode	HCLPF	Additional Discussion
2Y-04	Systems Interaction	0.139	Adjacent block wall (Wall # 111-2/23) controls the equipment HCLPF capacity. Modification is required.
2Y-101	Screened	≥ 0.229	Anchorage screened by engineering judgment.
2Y-104	Screened	≥ 0.229	Anchorage screened by engineering judgment.
C-01	Systems Interaction	0.139	Adjacent block walls (Wall # 111-4N/23 & 111-2/23) control the equipment HCLPF capacity. Modification of block wall is required.
C-02	Systems Interaction	0.139	Adjacent block walls (Wall # 111-4N/23 & 111-2/23) control the equipment HCLPF capacity. Modification of block wall is required.
C-207	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
C-601	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
D-01	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-02	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-03	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-04	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-05	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-06	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-07	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-08	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-09	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-105	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-106	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-107	Anchorage	≥ 0.229	
D-108	Anchorage	≥ 0.229	
D-109	Anchorage	≥ 0.229	
D-11	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-12	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-13	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-14	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-16	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-18	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.

Equipment ID	Failure Mode	HCLPF	Additional Discussion
D-21	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-22	Systems Interaction	≥ 0.229	Adjacent block wall controls the equipment HCLPF capacity.
D-26	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-27	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-301	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-302	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
D-305	Anchorage	0.229	
D-600	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
D-63	Anchorage	≥ 0.229	The anchorage has a lower HCLPF value than the adjacent block wall. As such, adjacent block wall does not control the equipment HCLPF capacity.
D-64	Anchorage	≥ 0.229	The anchorage has a lower HCLPF value than the adjacent block wall. As such, adjacent block wall does not control the equipment HCLPF capacity.
DY-0A	Screened	≥ 0.229	Anchorage screened by large available margin in existing design basis calculation.
DY-0C	Anchorage	≥ 0.229	
DY-0D	Anchorage	≥ 0.229	
FP-3715	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
FP-448	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
FP-536	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
LT-4038	Systems Interaction	0.158	Adjacent block wall (WCC block wall) controls the equipment HCLPF capacity. Modification is required.
LT-4041	Systems Interaction	0.158	Adjacent block wall (WCC block wall) controls the equipment HCLPF capacity. Modification is required.
P-35B	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
P35B-E	TBD	TBD	Equipment not yet installed. Evaluation required after installation.
RS-SA-09	Screened	≥ 0.229	
RS-SA-10	Screened	≥ 0.229	
SW-2816	Screened	≥ 0.229	
SW-2817	Screened	≥ 0.229	
SW-4478	Screened	≥ 0.229	
SW-4479	Screened	≥ 0.229	
T-24A	Systems Interaction	0.158	Adjacent block wall (WCC block wall) controls the equipment HCLPF capacity. Modification of block wall is required. Anchorage is acceptable after the approved anchorage modification is installed.

Equipment ID	Failure Mode	HCLPF	Additional Discussion
T-24B	Systems Interaction	0.158	Adjacent block wall (WCC block wall) controls the equipment HCLPF capacity. Modification of block wall is required. Anchorage is acceptable after the approved anchorage modification is installed.
T-30	TBD	TBD	Equipment not yet installed. Evaluation required after installation.