

SEISMIC WALKDOWN REPORT

**IN RESPONSE TO THE 50.54(f) INFORMATION REQUEST
REGARDING
FUKUSHIMA NEAR-TERM TASK FORCE RECOMMENDATION 2.3:
SEISMIC**

for the

**ST. LUCIE PLANT UNIT 2
NRC Docket No. 50-389**

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Executive Summary

The purpose of this report is to provide information as requested by the Nuclear Regulatory Commission (NRC) in its March 12, 2012 letter issued to all power reactor licensees and holders of construction permits in active or deferred status. (Ref. 5) In particular, this report provides information requested to address Enclosure 3, Recommendation 2.3: Seismic, of the March 12, 2012 letter. (Ref. 5)

The 50.54(f) letter requires, in part, all U.S. nuclear power plants to perform seismic walkdowns to identify and address degraded, non-conforming or unanalyzed conditions and to verify the current plant configuration is within the current seismic licensing basis. This report documents the seismic walkdowns performed at St. Lucie Plant Unit 2 in response, in part, to the 50.54(f) letter issued by the NRC.

The Nuclear Energy Institute (NEI), supported by industry personnel, cooperated with the NRC to prepare guidance for conducting seismic walkdowns as required in the 50.54(f) letter, Enclosure 3, Recommendation 2.3: Seismic. (Ref. 5) The guidelines and procedures prepared by NEI and endorsed by the NRC were published through the Electric Power Research Institute (EPRI) as EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012; henceforth, referred to as the "EPRI guidance document." (Ref. 1) St. Lucie has utilized this NRC endorsed guidance as the basis for the seismic walkdowns and this report. (Ref. 1)

The EPRI guidance document was used to perform the engineering walkdowns and evaluations described in this report. In accordance with the EPRI guidance document, the following topics are addressed in the subsequent sections of this report.

- Seismic Licensing Basis
- Personnel Qualifications
- Selection of Systems, Structures, and Components (SSC)
- Seismic Walkdowns and Area Walk-Bys
- Seismic Licensing Basis Evaluations
- IPEEE Vulnerabilities Resolution Report
- Peer Review

Seismic Licensing Basis

The design basis earthquake (DBE) for the St. Lucie Plant site is 0.10g horizontal ground acceleration. The vertical earthquake is defined as 2/3 of the horizontal earthquake acceleration. (Ref. 2 section 3.7)

Personnel Qualifications

The walkdown team consisted of experienced site personnel with Civil, Operations and PRA backgrounds. The site personnel were supplemented by two vendors with significant experience in the areas of seismic design and the performance of seismic walkdowns. The

personnel who performed the key activities required to fulfill the objectives and requirements of the 50.54(f) letter are qualified and trained as required in the EPRI guidance document (Ref. 1). Personnel qualifications are discussed in section 3 of this report.

Selection of SSCs

One hundred (100) components were selected for the walkdown effort, including spent fuel pool items. These components were selected as described in detail in the EPRI guidance document, Section 3: Selection of SSCs. (Ref. 1)

Seismic Walkdowns and Area Walk-Bys

Section 5, Appendix C, and Appendix D of this report documents the equipment Seismic Walkdowns and the Area Walk-Bys. The online seismic walkdowns for St. Lucie Plant Unit 2 were performed September 24-28, 2012. The walkdown team consisted of two 2-person Seismic Walkdown Engineer (SWE) teams.

The seismic walkdown team inspected 96 of the 100 components on the SWEL (comprised of SWEL 1 and SWEL 2). Walkdowns for 4 components were deferred due to accessibility issues given energized equipment. These 4 remaining Unit 2 items will be walked down during a unit outage or another time when the equipment is accessible, as appropriate. Anchorage verification was required for a minimum of 39 components. (Ref. 1) A total of 41 anchorage configurations were confirmed to be installed in accordance with the station documentation.

During the seismic walkdowns at St. Lucie Unit 2, several Action Requests (ARs) were issued for a variety of conditions, which are detailed in Tables 5-2 and 5-3. After evaluation through the Corrective Action Program (CAP), it was determined that none of the conditions identified in the ARs were adverse seismic conditions that challenged the licensing basis of the plant.

Seismic Licensing Basis Evaluations

Conditions identified during the walkdowns were documented on the SWCs, AWCs, and entered into the CAP. Conditions that required seismic licensing basis evaluations were completed and documented within Section 6: Licensing Basis Evaluations of this report. Tables 5-2 and 5-3 in the report provide a summary of the conditions and the action completion status.

IPEEE Vulnerabilities

No vulnerabilities were identified as a result of the effort that addressed the Individual Plant Examination of External Events (IPEEE).

Peer Reviews

The Peer Review of the walkdowns consisted of team made up of two representatives and two structural/seismic engineers. The structural/seismic engineers made up the SWE teams, but also served to peer review each other's work. Section 8 and Appendix F of this report contains a summary of the Peer Review. The Peer Review determined that the objectives and requirements of the 50.54(f) letter are met. Further, it was concluded by the peer reviews that

the efforts completed and documented within this report are in accordance with the EPRI guidance document.

Summary

In summary, seismic walkdowns have been completed at the St. Lucie Plant Unit 2 in accordance with the NRC endorsed walkdown methodology. All potentially degraded, nonconforming, or unanalyzed conditions identified as a result of the seismic walkdowns have been entered into the corrective action program.

Evaluations of the identified conditions are complete and documented within the CAP. These evaluations determined the Seismic Walkdowns resulted with no adverse anchorage conditions, no adverse seismic spatial interactions, and no other adverse seismic conditions associated with the items on the SWEL that challenged the licensing basis of the plant. Similarly, the Area Walk-Bys resulted with no adverse seismic conditions associated with other SSCs located in the vicinity of the SWEL item(s).

The Seismic Walkdowns identified several minor issues predominantly pertaining to maintenance. No planned or newly identified protection or mitigation features have resulted from the efforts to address the 50.54(f) letter.

Follow-on activities required to complete the efforts to address Enclosure 3 of the 50.54(f) letter include inspection of 4 electrical cabinets. These inspections are deferred because the cabinets were inaccessible due to the potential electrical hazard from energized buswork.

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Introduction

1.1 Background

In response to Near-Term Task Force (NTTF) Recommendation 2.3, the Nuclear Regulatory Commission (NRC) issued a 10CFR50.54(f) letter on March 12, 2012 requesting that all licensees perform seismic walkdowns to identify and address plant degraded, non-conforming, or unanalyzed conditions, with respect to the current seismic licensing basis. The Nuclear Energy Institute (NEI), through the Electric Power Research Institute (EPRI), prepared industry guidance to assist licensees in responding to this NRC request. The industry guidance document, EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012 (Ref. 1), was endorsed by the NRC on May 31, 2012. St. Lucie has committed to using this NRC-endorsed guidance as the basis completing the walkdown effort.

1.2 Plant Overview

Florida Power & Light Company's (FPL) St. Lucie site consists of two pressurized water reactor (PWR) generating units located on Hutchinson Island in St. Lucie County, Florida approximately 7 miles to the south of the city of Ft. Pierce. The eastern boundary of the site is the Atlantic Ocean and the western boundary is the Indian River, a tidal lagoon. Other prominent natural features within 50 miles of the site include Lake Okeechobee, 30 miles to the west-southwest of the site and a portion of the Everglades approximately 24 miles to the south of the site. The plant's nuclear steam supply system (NSSS) is a pressurized water reactor designed by Combustion Engineering Incorporated. The net electrical output is approximately 890 Mwe per unit. The containment structure and balance of plant are designed by Ebasco Services Incorporated.

1.3 Approach

The EPRI Seismic Walkdown Guidance (Ref. 1) was used for the St. Lucie seismic walkdowns and evaluations described in this report. In accordance with Reference 1, the following topics are addressed in the subsequent sections of this report:

- Seismic Licensing Basis
- Personnel Qualifications
- Selection of SSCs
- Seismic Walkdowns and Area Walk-Bys
- Seismic Licensing Basis Evaluations
- IPEEE Vulnerabilities Resolution Report
- Peer Review

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Seismic Licensing Basis

The licensing basis for Seismic Category I (SC-1) equipment at St. Lucie 2 Plant is defined in the UFSAR (Ref. 2) Section 3.7. Site design ground motion response spectra for the Operating Basis Earthquake (OBE) and Safe Shutdown Earthquake (SSE) are shown in UFSAR Figures 3.7-1 to 3.7-4 and adhere to Regulatory Guide 1.60, Design Response Spectra for Seismic Design of Nuclear Power Plants. Damping values for SC-1 equipment are listed in UFSAR Table 3.7-2 and conform to Regulatory Guide 1.61, Damping Values for Seismic Design of Nuclear Power Plants. *The SSE was set to 0.10g by requirement of 10CFR100, Appendix S. The vertical earthquake amplitude varies from 2/3 of the horizontal component below approximately 9 Hz to equal to the horizontal spectrum above approximately 9 Hz. All building and soil-structure interaction analysis is fully three-dimensional. Amplified floor response spectra are developed in accordance with Regulatory Guide 1.122 and modal and directional responses follow Regulatory Guide 1.92.*

In compliance with General Design Criterion 2, plant structures, systems and components which are important to safety are designed to remain functional in the event of a SSE if they are necessary to assure:

- the integrity of the reactor coolant pressure boundary,
- the capability to shut down the reactor and maintain it in a safe shutdown condition, or
- the capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the guidelines established for design basis accidents.

Per UFSAR Section 3.9 Mechanical equipment was qualified by testing and analysis. Manufacturers were required to test equipment to floor response spectra provided for the location where the equipment was located or by analysis where stresses were limited to 90% of material yield stress for the SSE loading cases. Mechanical equipment is qualified by either testing or analysis or a combination thereof in accordance with ASME Section III requirements through 1973 Summer Addenda. Component supports are designed in accordance with AISC, 7th Edition.

For ASME Code Class 1, 2 and 3 piping St. Lucie 2 performed dynamic analysis and followed the requirements and stress limits of ASME Section III 1971 Edition up to 1973 Summer Addenda.

As required by the Safety Evaluation Report (SER) commitment, seismic qualification of seismic Category I instrumentation and electrical equipment is in accordance with IEEE 344-1971, "IEEE Guide for Seismic Qualification of Class 1E Electric Equipment for Nuclear Power

Generating Stations" and multi-axis and multi-frequency testing unless specific requirements are met that demonstrate single-frequency or single-axis testing is sufficient. However, as indicated in Tables 3.10-1 and 2 of the UFSAR, St. Lucie 2 (Ref. 2) has purchased Class 1E equipment with qualifications exceeding the SER commitments as far as the state-of-the-art knowledge was available at the time of the purchase order. St. Lucie 2 does not conform to Regulatory Guide 1.100 (Ref. 2).

For concrete structures and components, the basic code for determining the section strengths is ACI 318-71(Ref. 6). Steel design and construction followed AISC, "Manual of Steel Construction," 7th Edition (Ref. 7).

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Personnel Qualifications

3.1 Overview

This section of the report identifies the personnel who participated in the NTTF 2.3 Seismic Walkdown efforts. A description of the responsibilities of each Seismic Walkdown participant's role(s) is provided in Section 2 of the EPRI Seismic Walkdown Guidance (Ref. 1). Resumes contained in Appendix A provide detailed personnel qualification information.

3.2 Project Personnel

Table 3-1 below summarizes the names and corresponding roles of personnel who participated in the NTTF 2.3 Seismic Walkdown effort.

Table 3-1: Personnel Roles

Name	Equipment Selection Engineer	Plant Operations	Seismic Walkdown Engineer (SWE)	Licensing Basis Reviewer	IPEEE Reviewer	Peer Reviewer
St. Lucie (NextEra Energy)						
G. Tullidge	X					
A. Restrepo	X					
M. Bladek		X				X
A. Terezakis		X				
D. West				X	X	X
E. Hollowell				X	X	X
S. Ramani				X	X	
Stevenson & Associates						
S. W. Baker			X	X		
H. A. Young			X	X		

3.3 Equipment Selection Personnel

The SWEL development was performed by a member of the St. Lucie PRA Group. The SWEL was reviewed by personnel from the PRA Group, Operations, and Engineering. Résumés are provided in Appendix A.

3.4 Seismic Walkdown Engineers

The seismic walkdown team consisted of two seismic walkdown engineers (SWEs) from Stevenson and Associates (S&A). Other St. Lucie professional staff participated in some of the walkdowns as part of the peer review process. Resumes are included in Appendix A.

S&A is recognized internationally as a leading seismic consultant to the nuclear industry and as a regular contributor to the advancement of earthquake engineering knowledge through funded research projects. The professional staff has expertise and capabilities in earthquake engineering, structural dynamics, and structural design. S&A has performed seismic evaluations of US nuclear power plants, using either Seismic Probabilistic Risk Assessment (PRA) or Seismic Margin Assessment, to address US Nuclear Regulatory Commission (NRC) Individual Plant Evaluation for External Events (IPEEE) for over 35 US and European plants.

3.5 Licensing Basis Reviewers

The Licensing Basis Reviewers for St. Lucie consisted of the two SWEs from S&A. St. Lucie engineers had the lead in licensing basis determinations, with support from the S&A engineers.

3.6 IPEEE Reviewers

The IPEEE Reviewers for St. Lucie consisted of the PRA engineers, who participated in the SWEL preparation, as well as personnel from Engineering who participated in the seismic walkdowns.

3.7 Peer Review Team

The Peer Reviewer Team is listed, along with their roles and qualifications, in the *Peer Review Report* included in Appendix F.

3.8 Additional Personnel

Various other Operations personnel also provided support to the walkdown by reviewing the list of components for accessibility and accompanying the SWTs to open cabinet doors for accessibility to anchorage.

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Selection of SSCs

The Seismic Walkdown Equipment List is documented in the *SWEL Selection Report*, provided in Appendix B. This report describes how the SWEL was developed to meet the requirements of EPRI Seismic Walkdown Guidance (Ref. 1). The final SWEL (both SWEL 01 & SWEL 02) is included in the SWEL Selection Report in Appendix B.

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Seismic Walkdowns and Area Walk-Bys

5.1 Overview

The St. Lucie 2 Seismic Walkdowns and Area Walk-Bys were conducted by two trained Seismic Walkdown Engineers in accordance with the EPRI Seismic Walkdown Guidance (Ref. 1). The walkdowns occurred September 24-28, 2012. Selected electrical equipment cabinets that were not completely inspected or were not opened at all during the inspections due to unavailability were deferred to a future unit outage or another time when the equipment is accessible, as appropriate. The Seismic Walkdowns and Area Walk-Bys are discussed in more detail in the following sections.

5.2 Seismic Walkdowns

The Seismic Walkdowns focused on the seismic adequacy of the items on the SWEL as provided in Appendix B of this report. The Seismic Walkdowns also evaluated the potential for nearby SSCs to cause adverse seismic interactions with the SWEL items. The Seismic Walkdowns focused on the following adverse seismic conditions associated with the subject item of equipment:

- Adverse anchorage conditions
- Adverse seismic spatial interactions
- Other adverse seismic conditions

The results of the Seismic Walkdowns have been documented on the Seismic Walkdown Checklist (SWC) provided in the EPRI guidance document, Appendix C. Seismic Walkdowns were performed and a SWC completed for 96 of the 100 items identified on the St. Lucie Plant Unit 2 SWEL. The completed SWCs along with any comments are provided in Appendix C of this report. Drawings and other plant records are cited in some of the SWCs, but are not included with the SWCs because they are readily retrievable documents through the station's document management system.

Seismic Walkdowns are deferred for the remaining 4 items until safe access conditions can be provided. These items could not be walked down during the 180-day period following the issuance of the 10CFR50.54(f) letter due to their being inaccessible because they were energized and required for safe plant operation. Appendix E of this report identifies the inaccessible equipment along with the plan for future Seismic Walkdowns.

The following subsections describe the approach followed by the SWEs to identify potentially adverse anchorage conditions, adverse seismic interactions, and other adverse seismic conditions during the Seismic Walkdowns.

5.2.1 Adverse Anchorage Conditions

Guidance for identifying anchorage that could be degraded, non-conforming, or unanalyzed relied on visual inspections of the anchorage and verification of anchorage configuration. Details for these two types of evaluations are provided in the following two subsections.

The evaluation of potentially adverse anchorage conditions described in this subsection applies to the anchorage connections that attach the identified item of equipment to the civil structure on which it is mounted. For example, the welded connections that secure the base of a Motor Control Center (MCC) to the steel embedment in the concrete floor would be evaluated in this subsection. Evaluation of the connections that secure components within the MCC is covered later in the subsection "Other Adverse Seismic Conditions."

Visual Inspections

The purpose of the visual inspections was to identify whether any of the following potentially adverse anchorage conditions were present:

- Bent, broken, missing, or loose hardware
- Corrosion that is more than mild surface oxidation
- Visible cracks in the concrete near the anchors
- Other potentially adverse seismic conditions

Based on the results of the visual inspection, the SWEs judged whether the anchorage was potentially degraded, non-conforming, or unanalyzed. The results of the visual inspection were documented on the SWC, as appropriate. If there was clearly no evidence of degraded, nonconforming, or unanalyzed conditions, then it was indicated on the checklist and a licensing basis evaluation was not necessary. However, if it was not possible to judge whether the anchorage is degraded, nonconforming, or unanalyzed, then the condition was entered into the Corrective Action Program as a potentially adverse seismic condition.

Additionally, any significant comments are noted on the SWCs. Drawings and other plant design documents are cited in some of the SWCs, but they are not included with the SWCs because they are readily available in the plant's electronic document management system.

5.2.2 Anchorage Configuration Confirmation

As required by the EPRI Seismic Walkdown Guidance (Ref. 1, page 4-3), at least 50% of the items were confirmed to be anchored consistent with design drawings. Line-mounted equipment (e.g., valves mounted on pipelines without separate anchorage) was not evaluated for anchorage adequacy and was not counted in establishing the 50% sample size.

Examples of documentation that was considered to verify that the anchorage installation configurations are consistent with the plant documentation include the following:

- Design drawings
- Seismic qualification reports of analyses or shake table tests

The table of contents for Appendix C indicates the anchorage verification status for components as follows:

N/A: components that are line-mounted and/or are not anchored to the civil structure and therefore do not count in the anchorage confirmation total.

Y: components that are anchored to the civil structure which were confirmed to be consistent with design drawings and/or other plant documentation

N: components which had anchorage but were not chosen for anchorage configuration confirmations.

See Table 5-1 below for the accounting of the 50% anchorage configuration confirmations, and the individual SWC forms in Appendix C for the specific drawings used in each confirmation.

Table 5-1: Anchorage Configuration Confirmation

Total SWEL Items	SWEL Items without Anchorage (N/A)	Minimum Required to Confirm	Total Items Confirmed
A	B	$(A - B) / 2$	
100	22	39	41

5.2.3 Adverse Seismic Spatial Interactions

An adverse seismic spatial interaction is the physical interaction between the SWEL item and a nearby SSC caused by relative motion between the two during an earthquake. An inspection was performed in the area adjacent to and surrounding the SWEL item to identify any seismic interaction conditions that could adversely affect the capability of that SWEL item to perform its intended safety-related functions.

The three types of seismic spatial interaction effects that were considered are:

- Proximity
- Failure and falling of SSCs (Seismic II over I)
- Flexibility of attached lines and cables

Detailed guidance for evaluating each of these types of seismic spatial interactions is described in the EPRI guidance document, Appendix D: Seismic Spatial Interaction.

The Seismic Walkdown Engineers exercised their judgment to identify seismic interaction hazards. Section 5.2.5 provides a summary of issues identified during the Seismic Walkdowns.

5.2.4 Other Adverse Seismic Conditions

In addition to adverse anchorage conditions and adverse seismic interactions, described above, other potentially adverse seismic conditions that could challenge the seismic adequacy of a SWEL item were evaluated. Examples of the types of conditions that could pose potentially adverse seismic conditions include the following:

- Degraded conditions
- Loose or missing fasteners that secure internal or external components to equipment
- Large, heavy components mounted on a cabinet that are not typically included by the original equipment manufacturer
- Cabinet doors or panels that are not latched or fastened
- Other adverse conditions

Any identified other adverse seismic conditions are documented on the items' SWC and Table 5-2, as applicable.

5.2.5 Issues Identification during Seismic Walkdowns

Table 5-2 provides a summary of issues identified during the equipment Seismic Walkdowns. The equipment Seismic Walkdowns resulted in several conditions requiring action and each of these was entered into the station's CAP by St. Lucie Plant site personnel (PSL). All of the identified concerns were assessed and concluded to have no current operability issues.

Table 5-2: Table of Actions Resulting from Seismic Walkdown Inspection

No.	Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered into CAP (Y/N)	Current Status
Anchorage issues					
1	RWT	Significant paint chipping and discoloration on anchor bolts, indicative of corrosion. Unknown due to the heavy application of paint whether bolt diameters are effectively reduced. Verification of bolt diameter via cleaning is recommended.	Per PSL, AR issued to assess condition. Based on capacity of existing anchorage and visible degradation, no current operability issues. AR action to clean, inspect and coat and/or repair bolts.	Y	Action being tracked in CAP
Seismic interaction issues					
2	480V MCC 2B7	Measured approx. 3/8" gap in weak direction (N - S) of MCC to concrete wall. Verify from ISRS whether gap is sufficient.	Licensing Basis Evaluation concluded that gap is adequate. See Section 6. No current operability issue.	N	Closed
3	4.16 KV SWGR 2AB	Noted unstable sign that could impact door.	Corrected in the field by Operations by moving the sign to a safe distance. Per PSL, AR generated to document condition. AR action to update OPS procedures for storage/location of signs. No current operability issues.	Y	Closed
4	125V DC BUS 2B	Observed ~5/8" gap in front-to-back direction to concrete wall to the North.	Licensing Basis Evaluation concluded that gap is adequate. See Section 6. No current operability issue.	N	Closed

No.	Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered into CAP (Y/N)	Current Status
Other conditions					
5	4.16 KV SWGR 2B3	2B3-08 fuse on S wall missing nut on back. Verify whether nut required (and if so ensure installed) prior to bring back in service.	Per PSL, AR issued to address condition. Fuse is seismically insensitive. Fuse is mounted vertically and is in tight contact w/ cabinet frame, indicating bolt is tight. AR issued to verify if bolt is properly torqued and to add nut, if required. No current operability issue.	Y	Action being tracked in CAP
7	125V DC BUS 2B	3 missing panel bolts (breaker cover) in middle cabinet observed.	Per PSL, AR issued to address condition. Remaining bolts sufficient to support cover. No adverse seismic concern. AR action issued to install missing bolts. No current operability issues.	Y	Action being tracked in CAP
8	HVE-6A Plenum	Temperature indicator MIS - 25 - 1 mounted on the side of plenum unit has a loose nut on the mounting bolt.	Per PSL, AR issued to address condition. The indicator is low mass and the three remaining bolts have enough capacity to maintain structural integrity. No current operability issues. AR action issued to replace missing bolt.	Y	Action being tracked in CAP

No.	Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered into CAP (Y/N)	Current Status
9	ICW PP 2C	Noted missing panel bolts for various external screens and an unfastened latch.	Per PSL, six bolts support packing cover, bolt that is not installed would distort screen. No adverse seismic concern.	N	Closed
10	DG 2B S/U AIR TK 2B1	Noted approx. 3/16" gap between mounting skirt and base frame channel where E mounting bolt is located. Bolt head and nut are flush with members but gap between members is present. There is no adverse seismic concern since there are sufficient compression and tension load paths but PSL notified for an apparent unintended condition.	Per PSL, condition reviewed by PSL Engineering, and no unintended consequences identified. Bolt head and nut are flush with members but gap between members is present. There is no adverse seismic concern since there are sufficient compressions and tension load paths but PSL notified for an apparent unintended condition. Per PSL, condition reviewed by PSL Engineering, and no unintended consequences identified. No current operability issues.	N	Closed

No.	Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered into CAP (Y/N)	Current Status
11	HVE-41A	Missing external structural bolt on W side of unit.	Per PSL, AR issued to document condition. Because the missile shield bears on the vertical columns, the missing bolt does not adversely impact missile resistance of the vertical missile shield. The remaining 5 bolts are adequate to prevent any adverse seismic interaction. missing bolt is for the missile shield and serves no seismic design purpose. AR issued to document condition.	Y	Closed
12	125V DC BUS MA	Missing 1 of 2 panel latches.	Per PSL, AR issued to address condition. The box contains only fuses that are seismically insensitive. The remaining latch is sufficient to maintain the light weight as closed. AR action issued to repair latch. No current operability issues.	Y	Action being tracked in CAP

No.	Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered into CAP (Y/N)	Current Status
13	120V INSTR BUS 2MC	Missing latch on outside but all other latches present	Per PSL, AR issued to address condition. One of the five latches is missing on one side of box. Opposite side is hinged. Remaining latches sufficient to maintain cover as secure. AR action issued to repair the latch. No current operability issues.	Y	Action being tracked in CAP
Documentation still needed					
14	480PZ BUS2A3	Switchgear bolted to 2AB Xfmr to the south. Verify whether condition analyzed so as not to invalidate individual equipment seismic qualifications.	Per PSL, The electrical bus and transformer were purchased together as a unit. Drawings show them mounted together. Since they are purchased from the vendor for the as-found configuration, it follows that the transformer and bus are qualified for the as-found configuration. No unanalyzed condition.	N	Closed
15	STA SVC XFMR 2A-2	Verify whether bolting to 480V 2B2 to the north is an analyzed condition..	Per PSL, items were purchased together from the vendor. By similarity to No. 14 above, there is no unanalyzed condition.	N	Closed

No.	Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered into CAP (Y/N)	Current Status
16	480V SWGR 2B2	Verify whether bolting to 480V 2B2 to the north is an analyzed condition.	Per PSL, items are purchased together from the vendor. By similarity to No. 14 above, there is no unanalyzed condition.	N	Closed
17	STA SVC XFMR 2B-2	Verify whether bolting to 480V 2B2 to the north is an analyzed condition.	Per PSL, items are purchased together from the vendor. By similarity to No. 14 above, there is no unanalyzed condition.	N	Closed
18	480PZR XFMR 2A3	Switchgear bolted to 2AB Xfmr to the south. Verify whether condition analyzed.	Per PSL, items are purchased together from the vendor. By similarity to No. 14 above, there is no unanalyzed condition.	N	Closed
19	STA SVC XFMR 2B-2	Verify anchorage as 4 plug welds at corners to embeds per configuration documentation.	Per PSL, anchorage verified per plant drawings.	N	Closed

5.3 Area Walk-Bys

The purpose of the Area Walk-Bys is to identify potentially adverse seismic conditions associated with other SSCs located in the vicinity of the SWEL items. Vicinity is generally defined as the room containing the SWEL item. If the room is very large (e.g., Turbine Hall), then the vicinity is identified based on judgment, e.g., on the order of about 35 feet from the SWEL item. This vicinity is described on the Area Walk-By Checklist (AWC), shown in Appendix D of this report. A total of 39 AWCs were completed for St. Lucie 2. It is noted that additional AWCs will be completed, as required, as deferred and supplemental inspections are completed.

The key examination factors that were considered during Area Walk-Bys include the following:

- Anchorage conditions (if visible without opening equipment)
- Significantly degraded equipment in the area
- A visual assessment (from the floor) of cable/conduit raceways and HVAC ducting (e.g., condition of supports or fill conditions of cable trays)
- Potentially adverse seismic interactions including those that could cause flooding, spray, and fires in the area
- Other housekeeping items that could cause adverse seismic interaction (including temporary installations and equipment storage)

Scaffold construction was inspected to meet the station administrative procedure for the control of scaffolding. Seismic housekeeping was examined to meet the station procedure for the control of temporary equipment, temporary power, and job setup and plant storage

The Area Walk-Bys are intended to identify adverse seismic conditions that are readily identified by visual inspection, without necessarily stopping to open cabinets or taking an extended look. If a potentially adverse seismic condition was identified during the Area Walk-By, then additional time was taken, as necessary, to evaluate adequately whether there was an adverse condition and to document any findings.

The results of the Area Walk-Bys are documented on the AWCs included in Appendix D of this report. A separate AWC was filled out for each area inspected. A single AWC was completed for areas where more than one SWEL item was located.

Additional details for evaluating the potential for adverse seismic interactions that could cause flooding, spray, or fire in the area are provided in the following two subsections.

Seismically-Induced Flooding/Spray Interactions

Seismically-induced flooding/spray interactions are the effect of possible ruptures of vessels or piping systems that could spray, flood or cascade water into the area where SWEL items are located. This type of seismic interaction was considered during the IPEEE program. Those prior evaluations were considered, as applicable, as information for the Area Walk-Bys.

One area of particular concern to the industry is threaded fire protection piping with long unsupported spans. If adequate seismic supports are present or there are isolation valves near

the tanks or charging sources, flooding may not be a concern. Numerous failures have been observed in past earthquakes resulting from sprinkler head impact. Less frequent but commonly observed failures have occurred due to flexible headers and stiff branch pipes, non-ductile mechanical couplings, seismic anchor motion and failed supports.

Examples where seismically-induced flooding/spray interactions could occur include the following:

- Fire protection piping with inadequate clearance around fusible-link sprinkler heads
- Non-ductile mechanical and threaded piping couplings can fail and lead to flooding or spray of equipment
- Long, unsupported spans of threaded fire protection piping
- Flexible headers with stiffly supported branch lines
- Non-Seismic Category I tanks

The SWEs exercised their judgment to identify only those seismically-induced interactions that could lead to flooding or spray. No concerns associated with fire protection piping or spray of equipment were identified at St. Lucie 2.

Seismically-Induced Fire Interactions

Seismically-induced fire interactions can occur when equipment or systems containing hazardous/flammable material fail or rupture. This type of seismic interaction was considered during the IPEEE program. Those prior evaluations were considered, as applicable, as information for the Area Walk-Bys.

Examples where seismically-induced fire interactions could occur include the following:

- Hazardous/flammable material stored in inadequately anchored drums, inadequately anchored shelves, or unlocked cabinets
- Natural gas lines and their attachment to equipment or buildings
- Bottles containing acetylene or similar flammable chemicals
- Hydrogen lines and bottles

Another example where seismically-induced fire interaction could occur is when there is relative motion between a high voltage item of equipment (e.g., 4160 volt transformer) and an adjacent support structure when they have different foundations. This relative motion can cause high voltage busbars, which pass between the two, to short out against the grounded bus duct surrounding the busbars and cause a fire.

The Seismic Walkdown Engineers exercised their judgment to identify only those seismically-induced interactions that could lead to fires. No such interactions were found at St. Lucie 2.

5.3.1 Issue Identification during Area Walk-bys

Table 5-3 provides a summary of issues identified during the Area Walk-bys. The Area Walk-bys resulted in several conditions requiring action and each of these was entered into the station's CAP by St. Lucie Plant site personnel (PSL). All of the identified concerns were assessed and concluded to have no current operability issues.

Table 5-3: Table of Actions Resulting from Area Walk-by Inspections

No.	Area	Potentially Adverse Seismic Condition	Resolution	Entered in CAP (Y/N)	Current Status
Seismic housekeeping issues					
1	AW13 - CTRL ROOM, AW38 - RAB 62' CTRL ROOM AC ROOM, AW38 - RAB 62' CTRL ROOM AC ROOM, AW10 - RAB 1' CHG PP 2A ROOM, AW34 - FHB 48' FUEL POOL COOLING ROOM, AW33 - RAB 43' HVAC EQUIPMENT ROOM, AW32 - RAB 43' 4A PLENUM, AW25 - TRSL 36' SOUTH ROOM, AW24 - TRSL 36' NORTH ROOM, AW22 - TRSL 19.5' NORTH ROOM, AW21 - TRSL 19.5' SOUTH ROOM, AW17 - RAB 43' NORTHWEST B SWGR ROOM, AW15 - RAB 43' SOUTHWEST B SWGR ROOM, AW03 - DIESEL GEN B ROOM, AW01 - RCB 62' EAST, AW01 - RCB 62' WEST	General housekeeping and temporary scaffolding issues noted due to out - of - service equipment related to the outage.	Per PSL, system and start-up readiness walkdowns will ensure that scaffold is removed or is in accordance with plant procedures prior to returning equipment to service.	N	Closed
Other seismic interaction issues					

No.	Area	Potentially Adverse Seismic Condition	Resolution	Entered in CAP (Y/N)	Current Status
2	AW13 - CTRL ROOM	<p>There is a gap of less than 1/32" between the Reactor Protection System (RPS) cabinets and an adjacent printer table on the cabinet's north side. The gap is in the side - to - side direction of the cabinet, which is reasonably considered rigid. The table is anchored as well. Printer atop the table is approximately 4" from cabinet, which is adequate spacing to preclude impact due to sliding. Verify whether the small gap is adequate or if the impact condition has been previously analyzed.</p>	<p>Licensing Basis Evaluation (Section 6) cannot readily show gap acceptability. Per PSL, AR was generated to resolve issue. RPS was out of service at time of discovery. Printer table was reworked to provide adequate clearance. No current operability issue.</p>	Y	Closed

No.	Area	Potentially Adverse Seismic Condition	Resolution	Entered in CAP (Y/N)	Current Status
3	AW17 - RAB 43' NORTHWEST B SWGR ROOM	Verify whether 480V Load Center 2B - 5 with transformer and switchgear flush is an analyzed condition.	Per PSL, The electrical bus and transformer were purchased together as a unit. Drawings show them mounted together. Since they are purchased from the vendor for the as-found configuration, it follows that the transformer and bus are qualified for the as-found configuration. No unanalyzed condition.	N	Closed

No.	Area	Potentially Adverse Seismic Condition	Resolution	Entered in CAP (Y/N)	Current Status
4	AW20 - RAB 43' EAST A SWGR ROOM	PSB - 1 Relay Cabinet 2A has negligible (~1/32") gap to masonry wall to N.	Per PSL Systems, cabinet impacting masonry wall is not an adverse seismic concern given internal component safety functionality. AR generated to document evaluation of the condition.	Y	Closed
5	AW20 - RAB 43' EAST A SWGR ROOM	Transformer PP201A / PP201 has ~1/16" gap to bolt on concrete starter wall. Verify whether gap is adequate.	Licensing Basis Evaluation concluded that gap is adequate. See Section 6. No current operability issue.	N	Closed
Other conditions					
6	AW28 - INTK 21' ICW PUMP ROOM	Wall - mounted Unistrut support for conduit box northeast of ICW PP 2C on east wall is severely corroded. Support is structurally ineffective. Box does not have label or appear safety - related. Similar concern for box west of ICW PP 2A on west wall.	Per PSL, push button boxes abandoned per Plant Modification Package. No hazard.	N	Closed

No.	Area	Potentially Adverse Seismic Condition	Resolution	Entered in CAP (Y/N)	Current Status
7	AW12 – CST	Noted significant corrosion on junction box B2R39 indicative of anchor strength loss.	Per PSL, B2R39 is NNS. Item is not located over or adjacent to Safety Related SSCs. No current operability issue. Work request issued to repair degraded condition.	N	Action being tracked in CAP
8	AW18 - RAB 43' NORTHWEST A SWGR ROOM	Door on N side of Annunciator Logic Terminals Cabinet 2 ALC - 2 is open due to hinge damage. Equipment is out of service;	Per PSL, AR issued to document condition. Per PSL Engineering, door has been verified by to be in a closed secure condition. AR issued to repair latch. In addition, cabinet verified to be Quality-Related, Seismic Category 2:1. No current operability issues.	Y	Action being tracked in CAP

No.	Area	Potentially Adverse Seismic Condition	Resolution	Entered in CAP (Y/N)	Current Status
9	AW22 - TRSL 19.5' NORTH ROOM	Small tubing support and angle indicative of potential strength loss due to corrosion approx. 6' south of west end of AFW PP C (overhead tubing). SWT judged tubing to be adequate if support failed due to tubing flexibility and low mass; therefore no seismic concern.	Per PSL, condition was discovered during in-progress outage work and that condition has been corrected.	N	Closed
10	AW03 - DIESEL GEN B ROOM	Noted approx. 3/16" gap between mounting skirt and base frame channel on start up air tanks. Bolt head and nut are flush with members but gap between members is present. There is no adverse seismic concern since there are sufficient compression and tension load paths but PSL notified for an apparent unintended condition	Per PSL, condition reviewed by PSL Engineering, and no unintended consequences identified.	N	Closed

6

Licensing Basis Evaluations

Potentially adverse conditions identified during the walkdowns were documented on the seismic walkdown and area walk-by checklists, as appropriate, and entered into the corrective action process. For those conditions that required a seismic licensing basis evaluation, the evaluations were completed and documented within the corresponding condition reports. The seismic licensing basis evaluations and results are also shown in the following table.

Table 6-1: Licensing Basis Evaluations

Equipment/Area ID	Potentially Adverse Seismic Condition	Licensing Basis Evaluation	Status
480V MCC 2B7	Measured approx. 3/8" gap in front-to-back direction (N - S) of MCC to concrete wall. Verify from ISRS whether gap is sufficient.	Per PSL Doc. 2998-20070, MCC front-to-back frequency is indicated as 6-7 Hz. At 4% damping, horizontal spectral acceleration at 6 Hz (lower bound) at MP 3 of DGB is 0.85g. Upper-bound estimated displacement for cantilevered structure with 1.6 modal participation factor is then $(1.6 * 0.85g * 386.4 \text{ in/s}^2/g) / (2 * \pi * 6 \text{ Hz})^2 = 0.37 \text{ in}$. Therefore, gap is adequate.	Closed
125V DC BUS 2B	Observed ~5/8" gap in front-to-back direction to concrete wall to the North.	For a lower bound frequency estimate of 5 Hz (reasonable for floor-mounted distribution panel) at 4% damping on the 43' elevation of the RAB (M.P. 3), the horizontal ISRS is 0.7g (STD-C-004). Upper-bound estimated displacement for cantilevered structure with 1.6 modal shape factor is then $(1.6 * 0.70g * 386.4 \text{ in/s}^2/g) / (2 * \pi * 5 \text{ Hz})^2 = 0.44 \text{ in}$. Therefore the 5/8" gap is adequate.	Closed

AW13 - CTRL ROOM	There is a gap of less than 1/32" between the Reactor Protection System cabinets and an adjacent printer table on the cabinet's north side. The gap is in the side - to - side direction of the cabinet, which is reasonably considered rigid. The table is anchored as well. Printer atop the table is approximately 4" from cabinet, which is adequate spacing to preclude impact due to sliding.	Per STR - 4698, SSE side - to - side maximum cabinet deflection is 0.144 inches (based upon frequency of 7 Hz). Point of contact with printer table is ~34" above floor whereas RPS cabinet is ~90" tall. Therefore, SSE deflection at point of interest is 0.0544 in ($=34"/90" * 0.144$). This exceeds the 1/32" gap. AR was generated to resolve the issue since Licensing Basis Evaluation could not readily show gap acceptability. Printer table was modified to provide sufficient gap. No current operability issue.	Action being tracked in CAP
AW20 - RAB 43' EAST A SWGR ROOM	Transformer PP201A / PP201 has ~1/16" gap to bolt on concrete starter wall.	Given squat transformer shape and motion along strong axis, a lower bound frequency of 10 Hz is reasonable. Per STD - C - 004, the spectral acceleration at El. 42.5 of the RAB (M.P. 3) at 4% damping is 0.35g. An upper bound estimate for displacement with a modal shape factor of 1.6 for cantilever action is then: $1.6 * 0.35g * 386.4 \text{ in}/(\text{s}^2 * g) / (2 * \pi * 10 \text{ Hz})^2 = 0.055$ ". Therefore the 1/16" gap is adequate.	Closed

7

IPEEE Vulnerabilities Resolution Report

The seismic assessment performed for the St. Lucie IPEEE Report (Ref. 4) was reviewed and no seismic vulnerabilities were identified. No plant improvements were required as a result of the seismic portion of the IPEEE. (See page 2 of the NRC SER on IPEEE (Ref. 10)). There were no vulnerabilities identified during the IPEEE report, and no scenario or event sequence has been identified which is considered to be a severe accident vulnerability.

8

Peer Review

The *Peer Review Report* is included as Appendix F. This includes the peer review of the SWEL selection, peer review of the seismic walkdown, and peer review of this final report.

9

References

Reference drawings related to SWEL items are provided in the Seismic Walkdown Checklists and if applicable, in the Area-Walkdown Checklists.

1. EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012.
2. St. Lucie Plant 2 Updated Final Safety Analysis Report (UFSAR), Amendment 18, January, 2008.
3. ASME, Section III
4. Seismic Individual Plant Examination for External Events (IPEEE)
5. IEEE 344-1971
6. ACI 318-71
7. AISC 7th Edition, 1971

A

Personnel Resumes and SWE Certificates

A.1 Introduction

Resumes for the following personnel that contributed to the seismic walkdown and/or peer review are included in this Appendix:

FPL, St. Lucie Plant: M. Bladek, E. Hollowell, S. Ramani, A. Restrepo, A. Terezakis, G. Tullidge, D. West

Stevenson & Associates: S. W. Baker, H. A. Young

EPRI Walkdown Training Course certificates are included for each of the designated SWEs.

A.2 Resumes & Certifications

Seth Baker

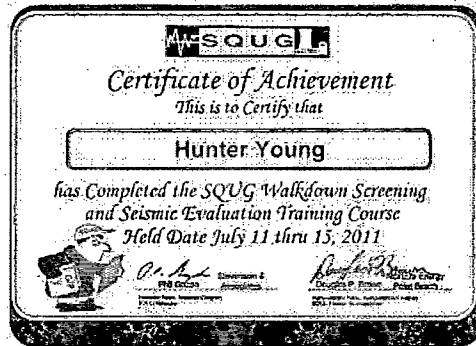
Mr. Baker is a Senior Engineer I in the S&A Boston office, where he joined in 2008. He has performed seismic and other dynamic evaluations on a variety of nuclear structures including steel frame buildings, equipment frames, and electrical cabinets, as well as having designed several structural modifications. He has completed the NTTF Recommendation 2.3 Training Course and has subsequently performed seismic walkdowns on seven US nuclear units. Mr. Baker holds an MS in Civil Engineering from Stanford University, a BS in Civil Engineering from the Worcester Polytechnic Institute, and is a registered E.I.T in Massachusetts.



Hunter A. Young, P.E.

Mr. Young is a Senior Engineer in the S&A Phoenix office with specialization in the dynamic analysis and design of structures and equipment for seismic, blast, fluid, and wind loads. He has managed and led seismic walkdowns and fragility analyses of structures and components for use in probabilistic risk assessments. Mr. Young has

performed the seismic analyses of braced steel frames, concrete foundations, masonry walls, large storage tanks, and electrical and mechanical equipment anchorages. In addition, Mr. Young has executed the walkdown and analysis of tank structures and their associated leakpath piping to assess loss of inventory in the event of beyond design basis seismic events using manual and finite element methods. Mr. Young has a Master of Engineering in Structural Engineering from the Massachusetts Institute of Technology and BSCE from the University of Notre Dame. He is a licensed P.E. (civil) in California and has completed the SQUG Walkdown training course.



Sharam Ramani

Mr. Ramani is a Civil/Mechanical Design Engineering Supervisor at Saint Lucie Nuclear Station (PSL). He has more than 30 years of nuclear experience, with most of that at PSL Nuclear Design Engineering group. He directs and coordinates major and minor civil/mechanical engineering activities to support safe and reliable nuclear plant operation. Has ability to extrapolate and communicate to management on complex problems /resolutions to justify continued operation. He evaluates regulatory guidance to determine applicability to components and evaluates design basis to ensure compliance. Mr. Ramani has a Civil Engineering degree from University of Massachusetts.

Dan West

Mr. West is a Staff Engineer in the St. Lucie Plant Engineering department. He has over 32 years of varied nuclear engineering experience at St. Lucie and is currently the site lead for the Fukushima response. He previously worked for General Electric at the Knolls Atomic Power Laboratory in the US Navy nuclear propulsion program. Mr. West has a B.S. in Marine Engineering from the US Merchant Marine Academy and an MBA from the Florida Institute of Technology. He held an SRO license on the St. Lucie Units from 1982 to 1988.

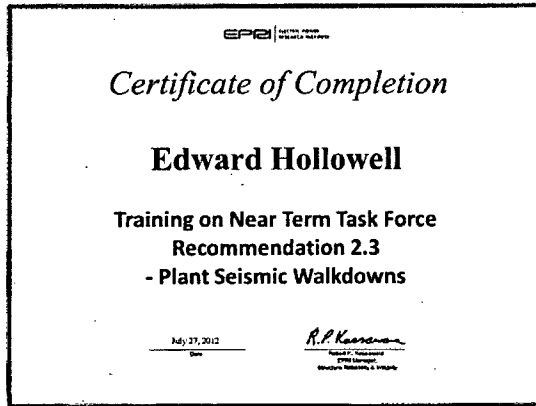
Michael Bladek

Mr. Bladek is Assistant Operations Manager in the St. Lucie Plant Operations Department with the responsibility for the PSL Operations Department support organization including the corrective action program, NRC inspection support, performance indicators, industry benchmarking and evaluation support. He has 27 year career in operations he has held various positions in St. Lucie and Turkey Point Plant Operation departments from Shift Manager to Field Operator. He has a Bachelor of

Science Degree from the University of Maryland in Nuclear Science. Mr. Bladek holds a current Senior Reactor Operators license at St. Lucie Plant.

Edward Hollowell

Mr. Hollowell is a currently a Principal Engineer at St Lucie Nuclear Station (PSL). He has more than 30 years of Civil Engineering experience in the Nuclear Industry. He has been part of FPL Civil design engineering group for 22 years, with 18 years of experience in seismic related structural design at PSL. Mr. Hollowell has a Bachelor of Science Degree in Structural Engineering and Construction Technology from Penn State University. He recently completed the EPRI Seismic Walkdown Engineer (SWE) training (see certificate below).



Andy Terezakis

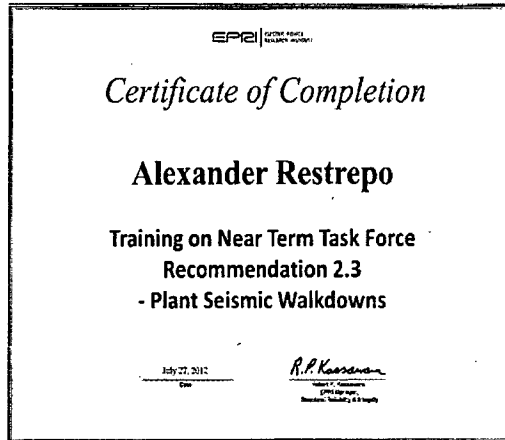
Mr. Terezakis is currently a Senior Licensed Reactor Control Operator in the Operations Support Group at St. Lucie and is a member of the St. Lucie Fukushima Response Team. He has 31 years of nuclear plant experience at St. Lucie that includes over 29 years in Operations. Mr. Terezakis has maintained an SRO license at St. Lucie for over 20 years and has a BS in Nuclear Science and Engineering from the University of Maryland.

George Tullidge

Mr. Tullidge is a Staff Engineer in the PRA Group at NextEra Energy Juno Beach office. He has over 30 years of commercial nuclear power experience. Mr. Tullidge has a degree in Physics from Pennsylvania State University. His years of experience include Operations, Maintenance, and Engineering. He also held an active Senior Reactor Operator license at St. Lucie and was a qualified Operations Shift Manager.

Alexander Restrepo

Mr. Restrepo is an Engineer I in the PRA Group at NextEra Energy, working primarily on Turkey Point Nuclear Station. He has three years of Operations experience at Turkey Point and two years of PRA experience. He has completed the necessary requirements and qualifications for a PRA engineer. Recently he completed Training on the Near Term task Force Recommendation 2.3 – Plant Seismic Walkdowns. He holds a BS and MS in Nuclear Engineering, both from the University of Florida.



B

SWEL Selection Report

Florida Power & Light

Selection of the St. Lucie Plant Unit 2
Seismic Walkdown Equipment List (SWEL)
for the Requirement 2.3 Walkdown

St. Lucie Nuclear Station

Revision 0

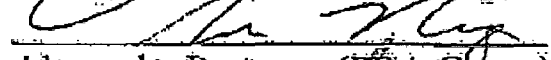
November 2012

Prepared by


George Tullidge (PRA Group)

11/12/12
Date

Reviewed by


Alexander Restrepo (PRA Group)

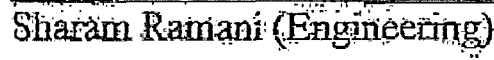
11/12/12
Date

Reviewed by


Andy Terezakos (Operations)

11/12/12
Date

Reviewed by


Sharam Ramani (Engineering)

11/13/12
Date

B.1 Introduction

This document contains the information used to develop the Seismic Walkdown Equipment List (SWEL) at St. Lucie (PSL) in accordance with EPRI Report 1025286, "Seismic Walkdown Guidance," dated June 2012 [1].

The selection process was completed by applying separate screening criteria to develop SWELs 1 and 2. The documentation is sequenced by first providing the screening criteria requirements, and then applying the screening criteria to the development and implementation of the seismic walkdown equipment list (SWEL).

B.2 Process

The general process focused first on building a Master Component List, with attributes to support the sample selection process (Sections 3 and 4). This list was obtained by generating a NAMS query of the entire PSL Equipment Database for all components along with data such as system code, component type, location, etc. Then the screening criteria below were applied to arrive at a final SWEL 1 and SWEL 2 comprised of approximately 100 items for each Unit.

The process also included identifying a set of plant locations around which the walkdown was organized (Section 5). The plant locations were also used to support the "walk-by" process to assess cable trays and ventilation ducts and the potential for seismic spatial interactions (Section 6).

Finally, Section 6 identifies several evaluations that supported the identification of targets for the walkdown and the specific attributes that needed to be examined.

Because the SWEL needs to address a number of attributes, the selection was performed and reviewed by a team that included representatives from PRA, Operations, and Engineering.

B.3 SWEL 1 Screening Criteria

The final SWEL 1 is listed in Attachment 1.

B.3.1 Screening Criteria 1 – Seismic Category 1

Requirement

The scope of SSCs (Systems, Structures, and Components) in the plant are limited to those that are designed to Seismic Category (SC) I requirements. This is done because only such items have a defined seismic licensing basis against which to evaluate the as-installed configuration. Selecting these items is intended to comply with the request in the NRC 50.54(f) Letter, under the "Requested Actions" section, to "verify current plant configuration with the current license basis."

Application

An equipment list from the PSL equipment database was obtained via a Nuclear Asset Management System (NAMS) query. The Seismic Class 1 SSCs were queried from the report by choosing only those SSCs designated as Seismic Class I.

B.3.2 Screening Criteria 2 – Equipment or Systems

Requirement

The scope of SSCs included selecting only those that do not regularly undergo inspections to confirm that their configuration continues to be consistent with the plant licensing basis. Cable/conduit raceways and HVAC ductwork were not included as “equipment” in the SWEL 1, and were instead left to be reviewed during area walk-bys of the spaces containing items on the SWEL 1. Also omitted were SC 1 structures, containment penetrations, and SC1 piping systems.

B.3.3 Screening Criteria 3 – Supports 5 Safety Functions

Requirement

The scope of SSCs to be included in SWEL 1, are those SSCs associated with maintaining the five safety functions. These five safety functions include the four safe shutdown functions (reactor reactivity control, reactor coolant pressure control, reactor coolant inventory control, and decay heat removal, which includes the Ultimate Heat Sink), plus the containment functions.

Application

Since the PRA risk model represents the five safety functions listed above, a list of all PRA component tags was compared to the remaining SSCs. Items not included in the PRA model were removed.

B.3.4 Screening Criteria 4 – Sample Considerations

Requirement

It was expected that SWEL 1, taken as a whole, would include representative items from some of the variations within each of the following five attributes:

- A variety of types of systems
- Major new and replacement equipment
- A variety of types of equipment
- A variety of environments
- Equipment enhanced due to vulnerabilities identified during the IPEEE program

Application

The equipment analyzed in this program was used as a base and compared to the screening criteria above. The remaining components in the Master Component List were reordered according to system code, component type, and then location in order to obtain a broad sample. Operations personnel were consulted with to identify new or replaced equipment that were on the truncated Master Component List.

B.4 SWEL 2 Screening Criteria

SWEL 2 began with the same Master Component List as SWEL 1. An initial screening was done retaining only SSCs related to the Spent Fuel Pool system. Screening criteria 1, 2, and 3 for SWEL 2 were performed identical to that of screening criteria 1, 2, and 4 for SWEL 1, respectively. The final SWEL 2 is incorporated into the PSL 2 SWEL.

B.4.1 Screening Criteria 4 – Cause Rapid Drain-Down

Requirement

The EPRI guidance requires assessment of the potential for Spent Fuel Pool (SFP) rapid drain down, specifically the identification of SFP penetrations below approximately 10 feet above the top of the fuel assemblies.

Application

Components were included in this screening based on their importance in maintaining spent fuel pool inventory and cooling.

B.5 Walk-By Table

Each location was also subjected to a walk-by, an examination (in less detail) of the other SSCs, as well as an inspection for other seismic issues:

- Several other passive component types: cable trays & ventilation ducts.
- Seismic-induced fire. This includes all flammable materials in each location such as hydrogen lines, gas bottles (acetylene, hydrogen), natural gas lines, and hazardous/flammable material stored in the location.
- Seismic-induced flood. This includes all flood/spray sources (tanks, piping) originating in each location, based on the Internal Flood PRA. Note, the flood sources of interest are only those originating in the location, not those coming from another location. The potential for flood propagation will be addressed in the seismic/flood analysis.
- Spatial interactions (2 / 1). This includes adverse physical interaction due to proximity, failing of other components or structures (e.g., cranes), and flexibility of attached lines and cables.

B.6 Evaluations

The following evaluations were performed prior to and during the walkdown to assess specific issues that may add to the walkdown scope or the inspection criteria.

B.6.1 Configuration Verification

The EPRI guidance identifies two types of inspection for the walkdown: (a) visual inspection and (b) configuration verification. Visual inspection is typically what is performed in a walkdown, looking for obvious degraded conditions in equipment anchorage. However, configuration verification is a more involved inspection consistent with the existing plant documentation of the design basis. This is required in at least 50% of the SWEL items with anchorage.

B.6.2 New Equipment

The EPRI Guidance directs that the SWEL should include a “robust sampling of the major new or replacement equipment installed within the past 15 years (i.e., since the approximate completion of the seismic IPEEE evaluation)”. Based on discussion with Operations and Engineering, major new or replacement equipment was identified and noted as such in the SWEL spreadsheet.

B.6.3 Modifications

The walkdown team allowed for changes to be made to the SWEL mid-walkdown. Many components were changed from 'B' train to 'A' train as the former was the protected train, precluding the thorough inspection of some components.

B.7 References

- B.7.1 IPEEE Report for St. Lucie, L-94-318, Dec. 1994
- B.7.2 EPRI TR-1025286, "Seismic Walkdown Guidance," June 2012

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
1	TCV-14-4B	TEMPERATURE CONTROL VALVE FOR COMPONENT COOLING WTR HX 2B OUTLET	VL	14	Component Cooling Water	7	CCW/15/S-B/W-4	N	3	
2	MV-14-2	MOTOR OPERATED VALVE FOR CCW PUMP 2C DISCH TO CCW HX 2B CROSSOVER	VL	14	Component Cooling Water	8	CCW/15/S-CW-3	N	3	
3	MV-14-4	MOTOR OPERATED VALVE FROM RETURN HEADER B TO CCW PUMP 2C SUCTION	VL	14	Component Cooling Water	8	CCW/15/S-D/W-2	Y	3	
4	HCV-14-8B	HAND CNTL VLV FOR CCW HX 2B OUTLET A LOOP CROSSOVER TO SPLY HDR N	VL	14	Component Cooling Water	8	CCW/17/N-B/W-2	Y	3	
5	SS-21-1B (CNTL PNL)	SS-21-1B CONTROL PANEL	IN	21	Circ Wtr- Intake Cooling Wtr	20	CCW/24/S-AW-4	Y	3	
6	SS-21-1B	STRAINER FOR CCW HX 2B ICW INLET	FI	21	Circ Wtr- Intake Cooling Wtr	0	CCW/26/S-AW-4	Y	3	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
7	CCW PP 2B	COMPONENT COOLING WATER PUMP 2B	PU	14	Component Cooling Water	5	CCW/26/S-B/E-2	Y	3	Item 3
8	CCW HX 2B	COMPONENT COOLING WATER HEAT EXCHANGER 2B	HT	14	Component Cooling Water	21b	CCW/28/S-AW-4	Y	3	Item 29
9	COND STOR TK	CONDENSATE STORAGE TANK	AC	12	Condensate	21a	CST/19/N-700/E-1167	Y	4	Item 9
10	480V MCC 2B7	480V MCC FOR DIESEL GEN BLDG MISC POWER SUPPLIES	MS	47	480V Electrical	1	DGB/23	Y	6	Item 17 Sim (2A7)
11	PP-212 Transformer	480-120/208V, 60HZ, 45KVA, 3 PHASE TRANSFORMER FOR PP-212	EL	48	120/208V Elec	4	DGB/23/DG 2B	Y	6	
12	PP-212 Distribution Panel	120/208V POWER DISTRIBUTION PANEL ESS-SB	EL	48	120/208V Elec	14	DGB/23/DG 2B	Y	6	
13	DG 2B CNTL PNL	CONTROL PANEL FOR DIESEL GENERATOR 2B	IN	59	Diesel Generator	20	DGB/24/S WALL	Y	6	Item 16 Sim (2A)
14	DSL GEN 2B	DIESEL GENERATOR 2B	GE	59	Diesel Generator	17	DGB/26/DG 2B	Y	6	Item 13 Sim (2A)
15	DG DO DAYTK 2B1	DIESEL GENERATOR	AC	59	Diesel Generator	21a	DGB/27/DG ENG 2B1	Y	6	Item 11SIM

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
		DIESEL OIL DAY TANK 2B1								(2A1)
16	SKBK LUBO AC PP 2B1 (SKB LO AC P 2B1)	SOAKBACK LUBE OIL AC PUMP 2B1	PU	59	Diesel Generator	5	DGB/DG ENG 2B1	Y	6	
17	SKBK LUBO DC PP 2B1 (SKB LO DC P 2B1)	SOAKBACK LUBE OIL DC PUMP 2B1	PU	59	Diesel Generator	5	DGB/DG ENG 2B1	Y	6	
18	DG ENG 2B2 (LUBO CLR)	LUBE OIL COOLER FOR DIESEL ENGINE 2B2	HT	59	Diesel Generator	21b	DGB/DG ENG 2B2	Y	6	
19	DG ENG 2B2 (RDTR)	RADIATOR FOR DIESEL GENERATOR ENGINE 2B2	HT	59	Diesel Generator	21b	DGB/DG ENG 2B2	Y	6	
20	DG 2B S/U AIR TK 2B1 (DG 2B SU/AR 2B1)	DIESEL GENERATOR 2B START-UP AIR TANK 2B1	AC	59	Diesel Generator	21a	DGB/S/U AIR SKID 2B	Y	6	Item 14 Sim (2A)
21	DG FO XFR PP 2B	DIESEL GENERATOR FUEL OIL TRANSFER PUMP 2B	PU	17	Turbine Lube Oil/DSL Fuel Oil	5	DOST/19/N615/E1772	Y	3	Item 1
22	DOST 2B	DIESEL OIL STORAGE TANK 2B	AC	17	Turbine Lube Oil/DSL Fuel	21a	DOST/19/N629/E1780	Y	3	Item 6

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
					Oil					
23	FUEL POOL PP 2A	FUEL POOL PUMP 2A	PU	4	Fuel Pool Cooling & Purification	5	FHB/15/S-FH6/E-RAC	N	4	
24	FUEL POOL PP 2B	FUEL POOL PUMP 2B	PU	4	Fuel Pool Cooling & Purification	5	FHB/15/S-FH6/E-RAC	N	4	
25	FUEL POOL HX 2A	FUEL POOL HEAT EXCHANGER 2A	HT	4	Fuel Pool Cooling & Purification	21b	FHB/20/N-FH7/W-RAA	N	4	
26	FT-14-2	FLOW TRANSMITTER FOR CCW FROM FUEL POOL HX OUTLET	IX	14	Component Cooling Water	18	FHB/24/S-FH7/W-RAA	N	3,4	
27	HVE-16A	CENTRIFUGAL FAN FOR FUEL POOL EXHAUST SYSTEM	BL	25	HVAC-Plumb & Drain/Leak	9	FHB/48/S-FH6/W-RAA	N	4	
28	MV-21-2	MOTOR OPERATED VALVE FOR ICW TRAIN B SUPPLY TO TCW HX'S	VL	21	Circ Wtr-Intake Cooling Wtr	8	INTK/11/N-4/W-C	Y	3	
29	MV-21-3	MOTOR OPERATED VALVE FOR ICW TRAIN A	VL	21	Circ Wtr-Intake Cooling Wtr	8	INTK/11/N-4/W-C	Y	3	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
		SUPPLY TO TCW HX'S								
30	ICW PP 2C	INTAKE COOLING WATER PUMP 2C	PU	21	Circ Wtr- Intake Cooling Wtr	6	INTK/21/S-4/W-C	Y	6	Item 4
31	HVE-41A	PROPELLER FAN FOR INTAKE STRUCTURE EXHAUST	BL	25	HVAC- Plumb & Drain/Leak	9	INTK/37/S-4/E-C	Y	6	
32	IRS HYDRZN PP 2A (IRS HYDRZN P 2A)	IODINE REMOVAL SYSTEM HYDRAZINE PUMP 2A	PU	7	Containment Spray	5	RAB/0/N-RA3/W-RAK	Y	5	
33	BAM PP 2A	BORIC ACID MAKE-UP PUMP 2A	PU	2	Chem & Vol Ctrl Sys	5	RAB/0/N-RA4/E-RAE	Y	6	Item 5
34	IRS HYDRZN STOR TK (IRS HYDZ STG TK)	IODINE REMOVAL SYSTEM HYDRAZINE STORAGE TANK	AC	7	Containment Spray	21a	RAB/0/S-RA3/E-RAL	Y	4	
35	CHG PP 2A	CHARGING PUMP 2A	PU	2	Chem & Vol Ctrl Sys	5	RAB/1/N-RA3/E-RAE	Y	5	Item 2
36	480V MCC 2B2 (480MCC 2B2)	480V MCC 2B2	EL	47	480V Electrical	1	RAB/1/S-RA3/E-RAG	Y	1,2,3	
37	CNTMT SPR PP 2B	CONTAINMENT SPRAY PUMP 2B	PU	7	Containment Spray	6	RAB/-10/N-RA3/W-RAG	Y	1	
38	BAMT 2B	BORIC ACID MAKE-UP TANK 2B	AC	2	Chem & Vol Ctrl Sys	21a	RAB/18/N-RA4/E-RAE	Y	1	Item 7

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
39	4.16 KV SWGR 2AB (4KV SWGR 2AB)	4.16 KV SWGR 2AB	EL	52	4.16 KV Electrical	1	RAB/19/S-RA2/W- RAG	Y	5	
40	480V SWGR 2AB	480V SWITCHGEAR 2AB	EL	47	480V Electrical	1	RAB/19/S-RA2/W- RAG	N	5	
41	SE-07-3B	SOLENOID VALVE ISOLATION FOR HYDRAZINE PUMP 2B DISCHARGE	VL	7	Containment Spray	8	RAB/2/S-RA3/E-RAL	Y	5	
42	SDC HX 2A	SHUTDOWN COOLING HEAT EXCHANGER 2A	HT	3	Safety Injection	21b	RAB/3/N-RA3/E-RAJ	Y	4	
43	FT-3301	FLOW TRANSMITTER FOR LPSI HEADER 2B FLOW	IX	3	Safety Injection	18	RAB/4/S-RA3/E-RAH	N	5	
44	FT-3325	FLOW TRANSMITTER FOR HPSI TO HOT LEG 2B	IX	3	Safety Injection	18	RAB/4/S-RA3/W-RAE	N	3	
45	ISOL PNL 2A (2A TRANSFER PNL)	ISOLATION PANEL 2A -Control Room Inaccessibility Transfer Panel	CK	52	4.16 KV Electrical	14	RAB/43/2A Switchgear	Y	6	
46	125V BATT 2A	125V DC BATTERY 2A	BA	50	125V DC	15	RAB/43/N-RA1/W- RAH	Y	6	Item 23/24
47	125V BATT 2B	125V DC BATTERY 2B	BA	50	125V DC	15	RAB/43/N-RA1/W-RAI	Y	6	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
48	STA SVC XFMR 2A-2 (SVC XFMR 2A-2)	STATION SERVICE TRANSFORMER 2A-2	TR	47	480V Electrical	4	RAB/43/N-RA2/E-RAI	Y	6	Item 21
49	HVS-4A	CENTRIFUGAL FAN FOR RAB MAIN SUPPLY SYSTEM	BL	25	HVAC-Plumb & Drain/Leak	9	RAB/43/N-RA2/W-RAD	N	5	
50	HVE-6A Plenum	FILTER PLENUM	BL	25	HVAC-Plumb & Drain/Leak	10	RAB/43/N-RA2/W-RAE-43'	Y	5	
51	HVE-6B	CENTRIFUGAL FAN FOR SHIELD BUILDING VENTILATION SYSTEM	BL	25	HVAC-Plumb & Drain/Leak	9	RAB/43/N-RA2/W-RAE-43'	Y	5	
52	RX TRIP SWGR	REACTOR TRIP SWITCHGEAR	CK	63	Reactor Protection	2	RAB/43/N-RA2/W-RAJ	Y	6	
53	HVE-9A	CENTRIFUGAL FAN FOR ECCS VENTILATION SYSTEM	BL	25	HVAC-Plumb & Drain/Leak	9	RAB/43/N-RA3/E-RAF	N	5	
54	HSCP 2A (COMPONENT - IN/PANEL)	HOT SHUTDOWN CONTROL PANEL 2A	IN	69	Safeguards Panels	20	RAB/43/N-RA4/W-RAK	Y	4	
55	125V DC BUS MA	125V DC BUS POWER DISTRIBUTION PANEL RPS-MA	EL	50	125V DC	14	RAB/43/RA1/RAJ	Y	6	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
56	120V INSTR BUS 2MC (120 INSBUS 2MC)	120V AC INSTRUMENT BUS 2MC DISTRIBUTION PANEL	EL	49	120V Vital AC	14	RAB/43/RA1/RAK	Y	6	
57	125V DC BUS 2B	125V DC BUS POWER DISTRIBUTION PANEL ESS-SB	EL	50	125V DC	14	RAB/43/RA3/RAK	Y	6	Item 25 Sim (2A)
58	480V MCC 2B6 (480MCC 2B6)	480V MCC 2A6	EL	47	480V Electrical	1	RAB/43/S-RA1/E-RAI	Y	6	Item 19
59	480PZ BUS2A3	480V PRZR BUS 2A3	EL	47	480V Electrical	2	RAB/43/S-RA1/E-RAJ	Y	6	Item 22
60	480PZR XFMR 2A3	480V PRESSURIZER TRANSFORMER 2A3	TR	47	480V Electrical	4	RAB/43/S-RA1/E-RAJ	Y	6	
61	480V MCC 2AB	480V MCC FOR RAB MISC POWER SUPPLIES	MS	47	480V Electrical	5	RAB/43/S-RA1/W-RAK	Y	6	
62	4.16 KV SWGR 2B3 (4KV SWGR 2B3)	4.16 KV SWITCHGEAR 2B3	CK	52	4.16 KV Electrical	2	RAB/43/S-RA2/W-RAH	Y	6	Item 20
63	BATT CHGR 2B	BATTERY CHARGER 2B (68 KVA)	BA	50	125V DC	16	RAB/43/S-RA3/W-RAK	Y	6	
64	STC INVTR 2B	STATIC INVERTER 2B (10 KVA)	GE	49	120V Vital AC	16	RAB/43/S-RA3/W-RAK	Y	6	Item 26 Sim

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
										(2A)
65	480V SWGR 2B2 (480 SWGR 2B2)	480V SWGR 2B2	EL	47	480V Electrical	1	RAB/43/S-RA4/W-RAI	N	6	
66	STA SVC XFMR 2B-2 (SVC XFMR 2B- 2)	STATION SERVICE TRANSFORMER 2B-2	TR	47	480V Electrical	4	RAB/43/S-RA4/W-RAI	Y	6	
67	PT-07-4B1	PRESSURE TRANSMITTER CONTAINMENT PRESSURE	IX	7	Containment Spray	18	RAB/47/N-RA1/E-RAE	Y	5	
68	LPSI PP 2B	LOW PRESSURE SAFETY INJECTION PUMP 2B	PU	3	Safety Injection	6	RAB/6/S-RA2/W-RAH	Y	1	
69	RTGB-206	REACTOR TURBINE GENERATOR CONTROL BOARD 206	IN	69	Safeguards Panels	20	RAB/62/CNTL RM	Y	6	
70	HVA/ACC-3A	AIR HANDLING UNIT FOR CONTROL ROOM AREA SUPPLY	BL	25	HVAC- Plumb & Drain/Leak	11	RAB/62/N-RA2/E-RAJ	N	6	
71	ESC SB	ENGINEERED SAFEGUARD	IN	69	Safeguards Panels	20	RAB/62/N-RA2/W- RAK	Y	3,4	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
		LOGIC CABINET SB								
72	HVCB SA	HEATING AND VENTILATION CONTROL BOARD	IN	69	Safeguards Panels	20	RAB/62/S-RA3/W-RAJ	Y	6	
73	HVCB SB	HEATING AND VENTILATION CONTROL BOARD	IN	69	Safeguards Panels	20	RAB/62/S-RA3/W-RAJ	Y	6	
74	QSPDS 2B (ICC CNTL CAB SB)	INADEQUATE CORE CLG CONTROL CABINET SB	IN	70	Data Acquisit Remote Term Unit	20	RAB/62/S-RA3/W-RAJ	N	6	
75	HPSI PP 2A	HIGH PRESSURE SAFETY INJECTION PUMP 2A	PU	3	Safety Injection	5	RAB/-7/S-RA2/E-RAG	Y	4	
76	HVS-1D	CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION	BL	25	HVAC-Plumb & Drain/Leak	11	RCB/45/N-22/W-51	Y	5	
77	HVS-1A	CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION	BL	25	HVAC-Plumb & Drain/Leak	11	RCB/45/N-34/E-42	Y	5	
78	HVS-1B	CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM	BL	25	HVAC-Plumb & Drain/Leak	11	RCB/45/S-42/E-34	Y	5	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
		DURING NORMAL OPERATION								
79	SIT 2A1	SAFETY INJECTION TANK 2A1	AC	3	Safety Injection	21a	RCB/62/N-61/W-8	Y	4	
80	SIT 2B1	SAFETY INJECTION TANK 2B1	AC	3	Safety Injection	21a	RCB/62/S-57/E-16	Y	4	
81	AFW PP 2C	AUXILIARY FEEDWATER PUMP 2C	PU	9	Feedwater	5	TRSL/20/N-T3/W-TA	Y	4	
82	AFW PP 2A	AUXILIARY FEEDWATER PUMP 2A	PU	9	Feedwater	5	TRSL/20/N-T5/W-TA	Y	4	
83	AFW PP2B	AUXILIARY FEEDWATER PUMP 2B	PU	9	Feedwater	5	TRSL/20/S-T5/W-TA	Y	4	
84	MV-09-14	MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B DISCH	VL	9	Feedwater	8	TRSL/21/N-T5/E-TB	Y	4	
85	MV-09-13	MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B DISCH	VL	9	Feedwater	8	TRSL/21/S-T4/E-TB	Y	4	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
86	MV-08-3	THROTTLE/TRIP VALVE FOR AUXILIARY FEEDWATER PUMP 2C	VL	8	Main Steam	8	TRSL/22/N-T3/W-TA	Y	4	
87	MV-08-13	MOTOR OPERATED ISOLATION VALVE FOR SG 2A MAIN STEAM TO AFW PP 2C	VL	8	Main Steam	8	TRSL/28/N-T2/W-TA	Y	4	
88	HCV-09-1A	MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-3	VL	9	Feedwater	7	TRSL/36/N-T2/W-TA	Y	5	
89	HCV-09-1B	MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-3	VL	9	Feedwater	7	TRSL/36/N-T2/W-TA	N	5	
90	HCV-08-1A	MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2A	VL	8	Main Steam	7	TRSL/36/N-T3/E-TB	Y	5	
91	HCV-08-1B	MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2B	VL	8	Main Steam	7	TRSL/36/N-T5/E-TB	Y	5	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
92	HCV-09-2A	MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-4	VL	9	Feedwater	7	TRSL/36/N-T6/W-TA	Y	6	
93	HCV-09-2B	MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-4	VL	9	Feedwater	7	TRSL/36/N-T6/W-TA	Y	6	
94	MV-09-10	MOTOR OPERATED VALVE FROM AUX FW PP 2B DISCHARGE TO STEAM GEN 2B	VL	9	Feedwater	8	TRSL/43/N-T6/E-TB	Y	4	
95	MV-09-9	MOTOR OPERATED VALVE FROM AUX FW PP 2A DISCHARGE TO STEAM GEN 2A	VL	9	Feedwater	8	TRSL/43/S-T1/E-TB	Y	4	
96	MV-09-12	MOTOR OPERATED VALVE FROM AUX FW PP 2C DISCHARGE TO STEAM GEN 2B	VL	9	Feedwater	7	TRSL/43/S-T5/E-TB	Y	4	
97	MSIV ACCUM 2B	MAIN STEAM ISOLATION VALVE ACCUMULATOR 2B	AC	18	Service Air/ Instrument Air	21a	TRSL/44/S-T5/E-TB	Y	5	

St. Lucie Unit 2 Seismic Walkdown Equipment List (SWEL)

Item #	Tag	Equipment Name	EQUIP. TYP	SYS#	Sys. Descrip	Equip. Class	Location Description	Risk Sig.	Safety Function	GL88-20 Item No.
98	MV-08-14	MOTOR OPERATED ISOLATION VALVE FOR MV-08-18A ATMOSPHERIC DUMP VLV	VL	8	Main Steam	8	TRSL/45/N-T3/W-TA	Y	5	
99	MV-08-19A	MOTOR OPERATED ATMOSPHERIC DUMP VALVE FOR STM GEN 2A MAIN STEAM	VL	8	Main Steam	8	TRSL/45/N-T3/W-TA	Y	5	
100	RWT	REFUELING WATER TANK	AC	7	Containment Spray	21a	YD/19/N-584/E-1704	Y	3,5	Item 10

C

Seismic Walkdown Checklists (SWCs)

Table C-1: Summary of Seismic Walkdown Checklists

- Anchorage Configuration Confirmation Performed

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
## CCW HX 2B	COMPONENT COOLING WATER HEAT EXCHANGER 2B	Component Cooling Water	AW29 - CCW 26' AREA	(21) Tanks and Heat Exchangers	62
## CCW PP 2B	COMPONENT COOLING WATER PUMP 2B	Component Cooling Water	AW29 - CCW 26' AREA	(05) Horizontal Pumps	64
HCV-14-8B	HAND CNTL VLV FOR CCW HX 2B OUTLET A LOOP CROSSOVER TO SPLY HDR N	Component Cooling Water	AW29 - CCW 26' AREA	(08) Motor-Operated and Solenoid-Operated Valves	66
MV-14-2	MOTOR OPERATED VALVE FOR CCW PUMP 2C DISCH TO CCW HX 2B CROSSOVER	Component Cooling Water	AW29 - CCW 26' AREA	(08) Motor-Operated and Solenoid-Operated Valves	69
MV-14-4	MOTOR OPERATED VALVE FROM RETURN HEADER B TO CCW PUMP 2C SUCTION	Component Cooling Water	AW29 - CCW 26' AREA	(08) Motor-Operated and Solenoid-Operated Valves	72
## SS-21-1B	STRAINER FOR CCW HX 2B ICW INLET	Component Cooling Water	AW29 - CCW 26' AREA	(00) Other	75
## SS-21-1B (CNTL PNL)	SS-21-1B CONTROL PANEL	Component Cooling Water	AW29 - CCW 26' AREA	(20) Instrumentation and Control Panels and Cabinets	77
TCV-14-4B	TEMPERATURE CONTROL VALVE FOR COMPONENT COOLING WTR HX 2B OUTLET	Component Cooling Water	AW29 - CCW 26' AREA	(07) Fluid-Operated Valves	79

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #	
##	COND STOR TK	CONDENSATE STORAGE TANK	Condensate Storage Tank	AW12 - CST	(21) Tanks and Heat Exchangers	82
	480V MCC 2B7	480V MCC FOR DIESEL GEN BLDG MISC POWER SUPPLIES	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(01) Motor Control Centers	Deferred
##	DG 2B CNTL PNL	CONTROL PANEL FOR DIESEL GENERATOR 2B	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(20) Instrumentation and Control Panels and Cabinets	84
##	DG 2B S/U AIR TK 2B1	DIESEL GENERATOR 2B START-UP AIR TANK 2B1	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(21) Tanks and Heat Exchangers	86
	DG DO DAYTK 2B1	DIESEL GENERATOR DIESEL OIL DAY TANK 2B1	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(21) Tanks and Heat Exchangers	88
	DG ENG 2B2 (LUBO CLR)	LUBE OIL COOLER FOR DIESEL ENGINE 2B2	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(21) Tanks and Heat Exchangers	90
	DG ENG 2B2 (RDTR)	RADIATOR FOR DIESEL GENERATOR ENGINE 2B2	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(21) Tanks and Heat Exchangers	93
	DSL GEN 2B	DIESEL GENERATOR 2B	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(17) Engine-Generators	95
	PP-212 Distribution Panel	120/208V POWER DISTRIBUTION PANEL ESS-SB	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(04) Transformers	97
	PP-212 XFMR	480-120/208V, 60HZ, 45KVA, 3 PHASE TRANSFORMER FOR PP-212	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(04) Transformers	99
##	SKBK LUBO AC PP 2B1	SOAKBACK LUBE OIL AC PUMP 2B1	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(05) Horizontal Pumps	102
	SKBK LUBO DC PP 2B1	SOAKBACK LUBE OIL DC PUMP 2B1	Diesel Generator Building	AW03 - DIESEL GEN B ROOM	(05) Horizontal Pumps	104
##	DG FO XFR PP 2B	DIESEL GENERATOR FUEL OIL TRANSFER PUMP 2B	Diesel Oil Storage Tank	AW11 - DOST 19' 2B ROOM	(05) Horizontal Pumps	106
##	DOST 2B	DIESEL OIL STORAGE TANK 2B	Diesel Oil Storage Tank	AW11 - DOST 19' 2B ROOM	(21) Tanks and Heat Exchangers	109
##	FT-14-2	FLOW TRANSMITTER FOR CCW FROM FUEL POOL HX OUTLET	Fuel Handling Building	AW30 - FHB 20' FUEL POOL HX 2A ROOM	(00) Other	111

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
## FUEL POOL HX 2A	FUEL POOL HEAT EXCHANGER 2A	Fuel Handling Building	AW30 - FHB 20' FUEL POOL HX 2A ROOM	(21) Tanks and Heat Exchangers	113
## FUEL POOL PP 2B	FUEL POOL PUMP 2B	Fuel Handling Building	AW31 - FHB 20' FUEL POOL PUMP ROOM	(05) Horizontal Pumps	116
## FUEL POOL PP 2B	FUEL POOL PUMP 2B	Fuel Handling Building	AW31 - FHB 20' FUEL POOL PUMP ROOM	(05) Horizontal Pumps	118
## HVE-16A	CENTRIFUGAL FAN FOR FUEL POOL EXHAUST SYSTEM	Fuel Handling Building	AW34 - FHB 48' FUEL POOL COOLING ROOM	(09) Fans	120
MV-21-2	MOTOR OPERATED VALVE FOR ICW TRAIN B SUPPLY TO TCW HX'S	Intake	AW27 - INTK 11' MECH VALVE PIT	(08) Motor-Operated and Solenoid-Operated Valves	122
MV-21-3	MOTOR OPERATED VALVE FOR ICW TRAIN A SUPPLY TO TCW HX'S	Intake	AW27 - INTK 11' MECH VALVE PIT	(08) Motor-Operated and Solenoid-Operated Valves	124
## ICW PP 2C	INTAKE COOLING WATER PUMP 2C	Intake	AW28 - INTK 21' ICW PUMP ROOM	(06) Vertical Pumps	126
## HVE-41A	PROPELLER FAN FOR INTAKE STRUCTURE EXHAUST	Intake	AW26 - INTK 37' INTAKE STRUCTURE ROOF	(09) Fans	128
CNTMT SPR PP 2B	CONTAINMENT SPRAY PUMP 2B	Reactor Auxiliary Building	AW08 - RAB - 10' CNTMT SPRAY PUMP ROOM 2B	(06) Vertical Pumps	131
## HPSI PP 2A	HIGH PRESSURE SAFETY INJECTION PUMP 2A	Reactor Auxiliary Building	AW37 - RAB - 7' HPSI 2A ROOM	(05) Horizontal Pumps	133
LPSI PP 2B	LOW PRESSURE SAFETY INJECTION PUMP 2B	Reactor Auxiliary Building	AW06 - RAB - 6' LPSI PUMP 2B ROOM	(06) Vertical Pumps	135
## IRS HYDRZN PP 2A	IODINE REMOVAL SYSTEM HYDRAZINE PUMP 2A	Reactor Auxiliary Building	AW04 - RAB - 0.5' NEAR HYDRAZINE TANK	(05) Horizontal Pumps	138
## IRS HYDRZN STOR TK	IODINE REMOVAL SYSTEM HYDRAZINE STORAGE TANK	Reactor Auxiliary Building	AW04 - RAB - 0.5' NEAR HYDRAZINE TANK	(21) Tanks and Heat Exchangers	140

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
SE-07-3B	SOLENOID VALVE ISOLATION FOR HYDRAZINE PUMP 2B DISCHARGE	Reactor Auxiliary Building	AW04 - RAB - 0.5' NEAR HYDRAZINE TANK	(08) Motor-Operated and Solenoid-Operated Valves	143
480V MCC 2B2	480V MCC 2B2	Reactor Auxiliary Building	AW07 - RAB - 0.5' CORRIDOR NEAR 480V MCC 2B2	(01) Motor Control Centers	145
## FT-3301	FLOW TRANSMITTER FOR LPSI HEADER 2B FLOW	Reactor Auxiliary Building	AW07 - RAB - 0.5' CORRIDOR NEAR 480V MCC 2B2	(00) Other	148
## FT-3325	FLOW TRANSMITTER FOR HPSI TO HOT LEG 2B	Reactor Auxiliary Building	AW07 - RAB - 0.5' CORRIDOR NEAR 480V MCC 2B2	(00) Other	150
## BAM PP 2A	BORIC ACID MAKE-UP PUMP 2A	Reactor Auxiliary Building	AW09 - RAB - 0.5' BAMT ROOM	(05) Horizontal Pumps	152
## CHG PP 2A	CHARGING PUMP 2A	Reactor Auxiliary Building	AW10 - RAB 1' CHG PP 2A ROOM	(05) Horizontal Pumps	155
## SDC HX 2A	SHUTDOWN COOLING HEAT EXCHANGER 2A	Reactor Auxiliary Building	AW05 - RAB 3' SDC HEAT EXCHANGER 2A ROOM	(21) Tanks and Heat Exchangers	157
4.16 KV SWGR 2AB	4.16 KV SWGR 2AB	Reactor Auxiliary Building	AW14 - RAB 19' MG SET ROOM	(01) Motor Control Centers	159
480V SWGR 2AB	480V SWITCHGEAR 2AB	Reactor Auxiliary Building	AW14 - RAB 19' MG SET ROOM	(01) Motor Control Centers	Deferred
## BAMT 2B	BORIC ACID MAKE-UP TANK 2B	Reactor Auxiliary Building	AW36 - RAB 19.5' BAMT ROOM	(21) Tanks and Heat Exchangers	161
## 4.16 KV SWGR 2B3	4.16 KV SWITCHGEAR 2B3	Reactor Auxiliary Building	AW15 - RAB 43' SOUTHWEST B SWGR ROOM	(02) Low Voltage Switchgear	163
## 480V MCC 2B6	480V MCC 2A6	Reactor Auxiliary Building	AW15 - RAB 43' SOUTHWEST B SWGR ROOM	(01) Motor Control Centers	166
480V SWGR 2B2	480V SWGR 2B2	Reactor Auxiliary Building	AW15 - RAB 43' SOUTHWEST B SWGR ROOM	(01) Motor Control Centers	Deferred
STA SVC XFMR 2B-2	STATION SERVICE TRANSFORMER 2B-2	Reactor Auxiliary Building	AW15 - RAB 43' SOUTHWEST B SWGR ROOM	(04) Transformers	168

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
## HSCP 2A	HOT SHUTDOWN CONTROL PANEL 2A	Reactor Auxiliary Building	AW16 - RAB 43' REMOTE SHUTDOWN PANEL ROOM	(20) Instrumentation and Control Panels and Cabinets	171
125V DC BUS 2B	125V DC BUS POWER DISTRIBUTION PANEL ESS-SB	Reactor Auxiliary Building	AW17 - RAB 43' NORTHWEST B SWGR ROOM	(14) Distribution Panels	173
## BATT CHGR 2B	BATTERY CHARGER 2B (68 KVA)	Reactor Auxiliary Building	AW17 - RAB 43' NORTHWEST B SWGR ROOM	(16) Inverters	176
## STC INVTR 2B	STATIC INVERTER 2B (10 KVA)	Reactor Auxiliary Building	AW17 - RAB 43' NORTHWEST B SWGR ROOM	(16) Inverters	180
120V INSTR BUS 2MC	120V AC INSTRUMENT BUS 2MC DISTRIBUTION PANEL	Reactor Auxiliary Building	AW18 - RAB 43' NORTHWEST A SWGR ROOM	(14) Distribution Panels	180
125V DC BUS MA	125V DC BUS POWER DISTRIBUTION PANEL RPS-MA	Reactor Auxiliary Building	AW18 - RAB 43' NORTHWEST A SWGR ROOM	(14) Distribution Panels	182
480PZ BUS2A3	480V PRZR BUS 2A3	Reactor Auxiliary Building	AW18 - RAB 43' NORTHWEST A SWGR ROOM	(02) Low Voltage Switchgear	Deferred
480PZR XFMR 2A3	480V PRESSURIZER TRANSFORMER 2A3	Reactor Auxiliary Building	AW18 - RAB 43' NORTHWEST A SWGR ROOM	(04) Transformers	184
480V MCC 2AB	480V MCC FOR RAB MISC POWER SUPPLIES	Reactor Auxiliary Building	AW18 - RAB 43' NORTHWEST A SWGR ROOM	(05) Horizontal Pumps	186
RX TRIP SWGR	REACTOR TRIP SWITCHGEAR	Reactor Auxiliary Building	AW18 - RAB 43' NORTHWEST A SWGR ROOM	(02) Low Voltage Switchgear	188
## 125V BATT 2A	125V DC BATTERY 2A	Reactor Auxiliary Building	AW19 - RAB 43' DC BATT ROOM 2A	(15) Batteries on Racks	190
ISOL PNL 2A	ISOLATION PANEL 2A -Control Room Inaccessibility Transfer Panel	Reactor Auxiliary Building	AW20 - RAB 43' EAST A SWGR ROOM	(14) Distribution Panels	192
STA SVC XFMR 2A-2	STATION SERVICE TRANSFORMER 2A-2	Reactor Auxiliary Building	AW20 - RAB 43' EAST A SWGR ROOM	(04) Transformers	195

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
HVS-4A	CENTRIFUGAL FAN FOR RAB MAIN SUPPLY SYSTEM	Reactor Auxiliary Building	AW32 - RAB 43' 4A PLENUM	(09) Fans	198
HVE-6A Plenum	FILTER PLENUM	Reactor Auxiliary Building	AW33 - RAB 43' HVAC EQUIPMENT ROOM	(10) Air Handlers	200
HVE-6B	CENTRIFUGAL FAN FOR SHIELD BUILDING VENTILATION SYSTEM	Reactor Auxiliary Building	AW33 - RAB 43' HVAC EQUIPMENT ROOM	(09) Fans	203
HVE-9A	CENTRIFUGAL FAN FOR ECCS VENTILATION SYSTEM	Reactor Auxiliary Building	AW33 - RAB 43' HVAC EQUIPMENT ROOM	(09) Fans	205
## PT-07-4B1	PRESSURE TRANSMITTER CONTAINMENT PRESSURE	Reactor Auxiliary Building	AW33 - RAB 43' HVAC EQUIPMENT ROOM	(00) Other	207
## 125V BATT 2B	125V DC BATTERY 2B	Reactor Auxiliary Building	AW35 - RAB 43' DC BATT ROOM 2B	(15) Batteries on Racks	209
HVA/ACC-3A	AIR HANDLING UNIT FOR CONTROL ROOM AREA SUPPLY	Reactor Auxiliary Building	AW38 - RAB 62' CTRL ROOM AC ROOM	(11) Chillers	211
ESC SB	ENGINEERED SAFEGUARD LOGIC CABINET SB	Reactor Auxiliary Building	AW13 - CTRL ROOM	(20) Instrumentation and Control Panels and Cabinets	214
HVCB SA	HEATING AND VENTILATION CONTROL BOARD	Reactor Auxiliary Building	AW13 - CTRL ROOM	(20) Instrumentation and Control Panels and Cabinets	216
HVCB SB	HEATING AND VENTILATION CONTROL BOARD	Reactor Auxiliary Building	AW13 - CTRL ROOM	(20) Instrumentation and Control Panels and Cabinets	218
QSPDS 2B	INADEQUATE CORE CLG CONTROL CABINET SB	Reactor Auxiliary Building	AW13 - CTRL ROOM	(20) Instrumentation and Control Panels and Cabinets	220
RTGB-206	REACTOR TURBINE GENERATOR CONTROL BOARD 206	Reactor Auxiliary Building	AW13 - CTRL ROOM	(20) Instrumentation and Control Panels and Cabinets	223

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
HVS-1A	CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION	Reactor Containment Building	AW01 - RCB 62' EAST	(11) Chillers	226
HVS-1D	CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION	Reactor Containment Building	AW01 - RCB 62' EAST	(11) Chillers	229
## SIT 2A1	SAFETY INJECTION TANK 2A1	Reactor Containment Building	AW01 - RCB 62' EAST	(21) Tanks and Heat Exchangers	232
HVS-1B	CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION	Reactor Containment Building	AW02 - RCB 62' WEST	(11) Chillers	234
## SIT 2B1	SAFETY INJECTION TANK 2B1	Reactor Containment Building	AW02 - RCB 62' WEST	(21) Tanks and Heat Exchangers	237
## AFW PP 2A	AUXILIARY FEEDWATER PUMP 2A	TRSL	AW21 - TRSL 19.5' SOUTH ROOM	(05) Horizontal Pumps	239
## AFW PP 2B	AUXILIARY FEEDWATER PUMP 2B	TRSL	AW21 - TRSL 19.5' SOUTH ROOM	(05) Horizontal Pumps	241
MV-09-13	MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B DISCH	TRSL	AW21 - TRSL 19.5' SOUTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	243
MV-09-14	MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B DISCH	TRSL	AW21 - TRSL 19.5' SOUTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	246
## AFW PP 2C	AUXILIARY FEEDWATER PUMP 2C	TRSL	AW22 - TRSL 19.5' NORTH ROOM	(05) Horizontal Pumps	249

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
MV-08-13	MOTOR OPERATED ISOLATION VALVE FOR SG 2A MAIN STEAM TO AFW PP 2C	TRSL	AW22 - TRSL 19.5' NORTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	252
MV-08-3	THROTTLE/TRIP VALVE FOR AUXILIARY FEEDWATER PUMP 2C	TRSL	AW22 - TRSL 19.5' NORTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	255
## MSIV ACCUM 2B	MAIN STEAM ISOLATION VALVE ACCUMULATOR 2B	TRSL	AW23 - TRSL 36' SOUTHWEST OUTSIDE NEAR MSIV ACCUM.	(21) Tanks and Heat Exchangers	257
HCV-08-1A	MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2A	TRSL	AW24 - TRSL 36' NORTH ROOM	(07) Fluid-Operated Valves	260
HCV-09-1A	MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-3	TRSL	AW24 - TRSL 36' NORTH ROOM	(07) Fluid-Operated Valves	262
HCV-09-1B	MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-3	TRSL	AW24 - TRSL 36' NORTH ROOM	(07) Fluid-Operated Valves	264
MV-08-14	MOTOR OPERATED ISOLATION VALVE FOR MV-08-18A ATMOSPHERIC DUMP VLV	TRSL	AW24 - TRSL 36' NORTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	266
MV-08-19A	MOTOR OPERATED ATMOSPHERIC DUMP VALVE FOR STM GEN 2A MAIN STEAM	TRSL	AW24 - TRSL 36' NORTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	269
MV-09-10	MOTOR OPERATED VALVE FROM AUX FW PP 2B DISCHARGE TO STEAM GEN 2B	TRSL	AW24 - TRSL 36' NORTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	272

Tag ID	Component Description	Building Name	Room ID's	Equipment Class	Page #
MV-09-9	MOTOR OPERATED VALVE FROM AUX FW PP 2A DISCHARGE TO STEAM GEN 2A	TRSL	AW24 - TRSL 36' NORTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	275
HCV-08-1B	MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2B	TRSL	AW25 - TRSL 36' SOUTH ROOM	(07) Fluid-Operated Valves	278
HCV-09-2A	MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-4	TRSL	AW25 - TRSL 36' SOUTH ROOM	(07) Fluid-Operated Valves	280
HCV-09-2B	MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-4	TRSL	AW25 - TRSL 36' SOUTH ROOM	(07) Fluid-Operated Valves	282
MV-09-12	MOTOR OPERATED VALVE FROM AUX FW PP 2C DISCHARGE TO STEAM GEN 2B	TRSL	AW25 - TRSL 36' SOUTH ROOM	(08) Motor-Operated and Solenoid-Operated Valves	284
## RWT	REFUELING WATER TANK	Yard	AW39 - YD 19' RWT	(21) Tanks and Heat Exchangers	287

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: CCW HX 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: COMPONENT COOLING WATER HEAT EXCHANGER 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): CCW, 28.00 ft, AW29

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|---|-----|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-671</i> | Yes |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: CCW HX 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: COMPONENT COOLING WATER HEAT EXCHANGER 2B

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: CCW PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: COMPONENT COOLING WATER PUMP 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): CCW, 26.00 ft, AW29

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-671

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: CCW PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: COMPONENT COOLING WATER PUMP 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-14-8B

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

HAND CNTL VLV FOR CCW HX 2B OUTLET A LOOP CROSSOVER TO

Equipment Description: SPLY HDR N

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): CCW, 17.00 ft, AW29

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable
Operator mounted to building steel.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-14-8B

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: HAND CNTL VLV FOR CCW HX 2B OUTLET A LOOP CROSSOVER TO SPLY HDR N

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes
Adjacent scaffold well braced and anchored.

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
The valve operator is on long stem to pipe. The operator is anchored at the 26' elevation, while the valve itself is on the 15' elevation (approx). Both the 26' and 15' in-line connections are rigid and the building itself is inherently stiff. This results in minimal demand due to low differential displacement. The configuration of the valve stem is therefore seismically adequate.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-14-8B

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

HAND CNTL VLV FOR CCW HX 2B OUTLET A LOOP CROSSOVER TO

Equipment Description: SPLY HDR N

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-14-2

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CCW PUMP 2C DISCH TO CCW HX 2B

Equipment Description: CROSSOVER

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): CCW, 15.00 ft, AW29

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|----------------|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-14-2

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CCW PUMP 2C DISCH TO CCW HX 2B

Equipment Description: CROSSOVER

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
The valve operator is on long stem to pipe. The operator is anchored at the 26' elevation, while the valve itself is on the 15' elevation (approx). Both the 26' and 15' in-line connections are rigid and the building itself is inherently stiff. This results in minimal demand due to low differential displacement. The configuration of the valve stem is therefore seismically adequate.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-14-2

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CCW PUMP 2C DISCH TO CCW HX 2B

Equipment Description: CROSSOVER

Seismic Walkdown Checklist (SWC)Equipment ID No.: MV-14-4Equipment Class: (8) Motor-Operated and Solenoid-Operated ValvesMOTOR OPERATED VALVE FROM RETURN HEADER B TO CCW PUMPEquipment Description: 2C SUCTIONProject: St Lucie 2 SWELLocation (Bldg, Elev, Room/Area): CCW, 15.00 ft, AW29

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-14-4

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM RETURN HEADER B TO CCW PUMP

Equipment Description: 2C SUCTION

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
Surrounding scaffold is well braced and anchored with good clearance.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
The valve operator is on long stem to pipe. The operator is anchored at the 26' elevation, while the valve itself is on the 15' elevation (approx). Both the 26' and 15' in-line connections are rigid and the building itself is inherently stiff. This results in minimal demand due to low differential displacement. The configuration of the valve stem is therefore seismically adequate.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-14-4

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM RETURN HEADER B TO CCW PUMP

Equipment Description: 2C SUCTION

Seismic Walkdown Checklist (SWC)Equipment ID No.: SS-21-1BEquipment Class: (0) OtherEquipment Description: STRAINER FOR CCW HX 2B ICW INLETProject: St Lucie 2 SWELLocation (Bldg, Elev, Room/Area): CCW, 26.00 ft, AW29

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|--|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-814</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SS-21-1B

Equipment Class: (0) Other

Equipment Description: STRAINER FOR CCW HX 2B ICW INLET

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures?

<i>Overhead hoist is well supported.</i> | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.
Missing tag; confirmed by PSL.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SS-21-1B (CNTL PNL)

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: SS-21-1B CONTROL PANEL

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): CCW, 24.00 ft, AW29

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with CRN-05182-13579</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SS-21-1B (CNTL PNL)

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: SS-21-1B CONTROL PANEL

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures?

<i>An unsecured hoist chain is approximately 4' east of the panel. Chain will not be able to close the gap, therefore no seismic concern exists.</i> | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Seismic Walkdown Checklist (SWC)

Equipment ID No.: TCV-14-4B

Equipment Class: (7) Fluid-Operated Valves

TEMPERATURE CONTROL VALVE FOR COMPONENT COOLING WTR HX

Equipment Description: 2B OUTLET

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): CCW, 15.00 ft, AW29

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|----------------|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: TCV-14-4B

Equipment Class: (7) Fluid-Operated Valves

TEMPERATURE CONTROL VALVE FOR COMPONENT COOLING WTR HX

Equipment Description: 2B OUTLET

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
<i>The valve operator is on long stem to pipe. The operator is anchored at the 26' elevation, while the valve itself is on the 15' elevation (approx). Both the 26' and 15' in-line connections are rigid and the building itself is inherently stiff. This results in minimal demand due to low differential displacement. The configuration of the valve stem is therefore seismically adequate.</i> | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: TCV-14-4B

Equipment Class: (7) Fluid-Operated Valves

TEMPERATURE CONTROL VALVE FOR COMPONENT COOLING WTR HX

Equipment Description: 2B OUTLET

Seismic Walkdown Checklist (SWC)

Equipment ID No.: COND STOR TK

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: CONDENSATE STORAGE TANK

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): CST, 19.00 ft, AW12

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|--|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-682 Sh. 1</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: COND STOR TK

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: CONDENSATE STORAGE TANK

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG 2B CNTL PNL

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: CONTROL PANEL FOR DIESEL GENERATOR 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 24.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG 2B CNTL PNL

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: CONTROL PANEL FOR DIESEL GENERATOR 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG 2B SU AIR TK 2B1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DIESEL GENERATOR 2B START-UP AIR TANK 2B1

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 23.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Noted 3/16" gap between east mounting bolt of tank skirt to mounting channel. Three other bolts are present and taught. No structural issues exist since all bolts can take tension. PSL was alerted.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG 2B SU AIR TK 2B1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DIESEL GENERATOR 2B START-UP AIR TANK 2B1

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG DO DAYTK 2B1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DIESEL GENERATOR DIESEL OIL DAY TANK 2B1

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 27.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Noted approx 1/8" gap between west flange of tank leg where mounting bolt is securing the items. Other side of west flange is flush and bears compression. Nut is tight so tension capacity is adequate. No seismic issues.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable
Day tank is mounted to the diesel skid frame.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG DO DAYTK 2B1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DIESEL GENERATOR DIESEL OIL DAY TANK 2B1

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Noted an approx. 1/4" gap between west center of tank and air tubing that if impacted may cause tubing to rupture at connection. Given low response of the building, and the short span between saddles, the gap is judged as adequate.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG DO DAYTK 2B1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DIESEL GENERATOR DIESEL OIL DAY TANK 2B1

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG ENG 2B2 (LUBO CLR)

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: LUBE OIL COOLER FOR DIESEL ENGINE 2B2

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 23.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

 2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

 4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable
-

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG ENG 2B2 (LUBO CLR)

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: LUBE OIL COOLER FOR DIESEL ENGINE 2B2

- | | | |
|----|---|----------------|
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG ENG 2B2 (LUBO CLR)

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: LUBE OIL COOLER FOR DIESEL ENGINE 2B2

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:

Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG ENG 2B2 (RDTR)

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: RADIATOR FOR DIESEL GENERATOR ENGINE 2B2

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 23.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG ENG 2B2 (RDTR)

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: RADIATOR FOR DIESEL GENERATOR ENGINE 2B2

Interaction Effects

- | | | |
|-----|---|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Overhead hoist is well supported. No seismic concerns.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DSL GEN 2B

Equipment Class: (17) Engine-Generators

Equipment Description: DIESEL GENERATOR 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 26.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DSL GEN 2B

Equipment Class: (17) Engine-Generators

Equipment Description: DIESEL GENERATOR 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
Noted small clearances on intake/outtake metal panels. Very minimal demand due to heavy structure, low elevation and rigid opening. No issue.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Heavily supported hoists overhead with chains either tied off or not near soft targets.
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: PP-212 Distribution Panel

Equipment Class: (14) Distribution Panels

Equipment Description: 120/208V POWER DISTRIBUTION PANEL ESS-SB

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 23.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: PP-212 Distribution Panel

Equipment Class: (14) Distribution Panels

Equipment Description: 120/208V POWER DISTRIBUTION PANEL ESS-SB

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: PP-212 XFMR

Equipment Class: (4) Transformers

Equipment Description: PP-212 Transformer

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 23.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: PP-212 XFMR

Equipment Class: (4) Transformers

Equipment Description: PP-212 Transformer

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

An approx. 1/16" gap from back of transformer to wall. Transformer is squat and rigid in the direction of motion. Given the low response at this elevation in the DGB, it is reasonable to conclude that the 1/16" gap exceeds the transformer's relative displacement.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: PP-212 XFMR

Equipment Class: (4) Transformers

Equipment Description: PP-212 Transformer

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SKBK LUBO AC PP 2B1

Equipment Class: (5) Horizontal Pumps

Equipment Description: SOAKBACK LUBE OIL AC PUMP 2B1

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 23.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage is consistent with drawing 2998-G-667 Sh. 4

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SKBK LUBO AC PP 2B1

Equipment Class: (5) Horizontal Pumps

Equipment Description: SOAKBACK LUBE OIL AC PUMP 2B1

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SKBK LUBO DC PP 2B1

Equipment Class: (5) Horizontal Pumps

Equipment Description: SOAKBACK LUBE OIL DC PUMP 2B1

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DGB, 23.00 ft, AW03

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SKBK LUBO DC PP 2B1

Equipment Class: (5) Horizontal Pumps

Equipment Description: SOAKBACK LUBE OIL DC PUMP 2B1

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG FO XFR PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DIESEL GENERATOR FUEL OIL TRANSFER PUMP 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DOST, 19.00 ft, AW11

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-683

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG FO XFR PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DIESEL GENERATOR FUEL OIL TRANSFER PUMP 2B

- | | | |
|----|--|-----|
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |
|----|--|-----|

Interaction Effects

- | | | |
|----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
|----|--|-----|

Heavy scaffold overhead is frequently kicked back to adjacent wall in all directions with engineering evaluation that confirms procedural adherence. Small clearances noted by rigid bracing precludes impact. No adverse seismic concerns exist.

- | | | |
|----|--|-----|
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
|----|--|-----|

- | | | |
|----|--|-----|
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
|----|--|-----|

- | | | |
|-----|---|-----|
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |
|-----|---|-----|

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
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	Hunter A. Young		11/16/12
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Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DG FO XFR PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DIESEL GENERATOR FUEL OIL TRANSFER PUMP 2B

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DOST 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DIESEL OIL STORAGE TANK 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): DOST, 19.00 ft, AW11

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Noted warped washer on north side, but nut is tight. No adverse seismic conditions.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor grout cracks, no structural concern.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage is consistent with drawing 2998-G-683

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: DOST 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DIESEL OIL STORAGE TANK 2B

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FT-14-2

Equipment Class: (0) Other

Equipment Description: FLOW TRANSMITTER FOR CCW FROM FUEL POOL HX OUTLET

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): FHB, 24.00 ft, AW30

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable
Mounted to steel frame.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-B-231 Sh. S-70

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FT-14-2

Equipment Class: (0) Other

Equipment Description: FLOW TRANSMITTER FOR CCW FROM FUEL POOL HX OUTLET

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FUEL POOL HX 2A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: FUEL POOL HEAT EXCHANGER 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): FHB, 20.00 ft, AW30

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Sliding end saddle has nut backed off approx 1/16" which is acceptable to allow thermal growth. No seismic capacity is sacrificed and no adverse seismic condition exists.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with 2889-G-605 Sh. 1

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FUEL POOL HX 2A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: FUEL POOL HEAT EXCHANGER 2A

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FUEL POOL HX 2A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: FUEL POOL HEAT EXCHANGER 2A

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FUEL POOL PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: FUEL POOL PUMP 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): FHB, 15.00 ft, AW31

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2889-G-605 Sh. 1

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FUEL POOL PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: FUEL POOL PUMP 2A

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes
*Hoist chain improperly tied off but swinging chain will not impact soft targets.
 Therefore no seismic concerns.*

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FUEL POOL PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: FUEL POOL PUMP 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): FHB, 15.00 ft, AW31

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|---|-----|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2889-G-605 Sh. 1</i> | Yes |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FUEL POOL PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: FUEL POOL PUMP 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-16A

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR FUEL POOL EXHAUST SYSTEM

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): FHB, 48.00 ft, AW34

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-16A

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR FUEL POOL EXHAUST SYSTEM

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-21-2

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: MOTOR OPERATED VALVE FOR ICW TRAIN B SUPPLY TO TCW HX'S

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): INTK, 11.00 ft, AW27

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-21-2

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: MOTOR OPERATED VALVE FOR ICW TRAIN B SUPPLY TO TCW HX'S

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-21-3

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: MOTOR OPERATED VALVE FOR ICW TRAIN A SUPPLY TO TCW HX'S

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): INTK, 11.00 ft, AW27

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-21-3

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: MOTOR OPERATED VALVE FOR ICW TRAIN A SUPPLY TO TCW HX'S

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Seismic Walkdown Checklist (SWC)

Equipment ID No.: ICW PP 2C

Equipment Class: (6) Vertical Pumps

Equipment Description: INTAKE COOLING WATER PUMP 2C

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): INTK, 21.00 ft, AW28

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation?
<i>Surface corrosion noted. No indication of strength loss.</i> | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: ICW PP 2C

Equipment Class: (6) Vertical Pumps

Equipment Description: INTAKE COOLING WATER PUMP 2C

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
<i>Noted missing panel bolt for screens and unsecured screen latches. No seismic concerns. Six bolts support packing cover, bolt that is not installed would distort screen. No AR required.</i> | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-41A

Equipment Class: (9) Fans

Equipment Description: PROPELLER FAN FOR INTAKE STRUCTURE EXHAUST

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): INTK, 37.00 ft, AW26

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

Missing external structural bolt on W side of unit. Per PSL, missing bolt is for the missile shield and serves no seismic design purpose. AR was generated to resolve this issue.

Also noted missing lock nut on east end. Primary nut is in place, therefore no seismic concern exists. PSL was notified.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-41A

Equipment Class: (9) Fans

Equipment Description: PROPELLER FAN FOR INTAKE STRUCTURE EXHAUST

- | | | |
|----|--|-----|
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |
|----|--|-----|

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-41A

Equipment Class: (9) Fans

Equipment Description: PROPELLER FAN FOR INTAKE STRUCTURE EXHAUST

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: CNTMT SPR PP 2B

Equipment Class: (6) Vertical Pumps

Equipment Description: CONTAINMENT SPRAY PUMP 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, -10.00 ft, AW08

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: CNTMT SPR PP 2B

Equipment Class: (6) Vertical Pumps

Equipment Description: CONTAINMENT SPRAY PUMP 2B

Interaction Effects

- | | | |
|-----|---|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Overhead hoist is well supported. No seismic issues.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HPSI PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: HIGH PRESSURE SAFETY INJECTION PUMP 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, -7.00 ft, AW37

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-589

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HPSI PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: HIGH PRESSURE SAFETY INJECTION PUMP 2A

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: LPSI PP 2B

Equipment Class: (6) Vertical Pumps

Equipment Description: LOW PRESSURE SAFETY INJECTION PUMP 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, -6.00 ft, AW06

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: LPSI PP 2B

Equipment Class: (6) Vertical Pumps

Equipment Description: LOW PRESSURE SAFETY INJECTION PUMP 2B

potentially adverse seismic conditions?

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Overhead hoist is well supported with chains stored in a safe position.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|---|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
<i>Noted missing panel bolt for power supply box on south side of LPSI Pump.
No seismic concerns. PSL was notified.</i> | Yes |
|-----|---|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: LPSI PP 2B

Equipment Class: (6) Vertical Pumps

Equipment Description: LOW PRESSURE SAFETY INJECTION PUMP 2B

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: IRS HYDRZN PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: IODINE REMOVAL SYSTEM HYDRAZINE PUMP 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, -0.50 ft, AW04

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-589

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: IRS HYDRZN PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: IODINE REMOVAL SYSTEM HYDRAZINE PUMP 2A

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Heavy overhead cable trays are well supported.
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: IRS HYDRZN STOR TK

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: IODINE REMOVAL SYSTEM HYDRAZINE STORAGE TANK

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, -0.50 ft, AW04

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-589

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: IRS HYDRZN STOR TK

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: IODINE REMOVAL SYSTEM HYDRAZINE STORAGE TANK

Interaction Effects

- | | | |
|-----|---|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| | <i>Noted a temporary electrical cabinet, approx 7' tall with 3'x3' base, within the zone of influence of tank. Operations confirmed that the tank is inoperable during outage, so no adverse seismic conditions exist. No other soft targets present.</i> | |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| | <i>Heavy cable tray overhead is rigidly supported. No concern for fall hazard.</i> | |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: IRS HYDRZN STOR TK

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: IODINE REMOVAL SYSTEM HYDRAZINE STORAGE TANK

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SE-07-3B

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: SOLENOID VALVE ISOLATION FOR HYDRAZINE PUMP 2B DISCHARGE

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 2.00 ft, AW04

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SE-07-3B

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: SOLENOID VALVE ISOLATION FOR HYDRAZINE PUMP 2B DISCHARGE

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2B2

Equipment Class: (1) Motor Control Centers

Equipment Description: 480V MCC 2B2

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, -0.50 ft, AW07

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2B2

Equipment Class: (1) Motor Control Centers

Equipment Description: 480V MCC 2B2

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

1) Noted 1" gap between top of MCC and wall on east side. Per PSL Doc. 2998-20070, the MCC front-to-back frequency is indicated as 6-7 Hz. At 4% damping, horizontal spectral acceleration at 6 Hz (lower bound) at MP 5 of RAB is 1.15g. Upper-bound estimated displacement for cantilevered structure with 1.6 modal shape factor is then $(1.6 * 1.15g * 386.4 \text{ in/s}^2/g) / (2 * \pi * 6 \text{ Hz})^2 = 0.49 \text{ in}$. Therefore, gap is adequate.

2) Rod hung pipe support with approx 3-4" gap to the top of MCC. The pipe is rigidly supported at next support therefore preventing the rod hung section from closing the gap.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

Well supported overhead cable trays.

9. Do attached lines have adequate flexibility to avoid damage? Yes

Rigid conduit coming out of MCC. The next lateral support for the conduit is approx 10" away, which is adequately flexible. Therefore no seismic issue exists.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.
Operations confirmed that the MCC is non-safety related.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2B2

Equipment Class: (1) Motor Control Centers

Equipment Description: 480V MCC 2B2

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FT-3301

Equipment Class: (0) Other

Equipment Description: FLOW TRANSMITTER FOR LPSI HEADER 2B FLOW

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 4.00 ft, AW07

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-B-231 Sh. S70

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FT-3301

Equipment Class: (0) Other

Equipment Description: FLOW TRANSMITTER FOR LPSI HEADER 2B FLOW

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes
Rod-hung overhead pipe supported vertically approx 8' on center. No fall hazard.

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Heavy cable trays overhead are rigidly supported.

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FT-3325

Equipment Class: (0) Other

Equipment Description: FLOW TRANSMITTER FOR HPSI TO HOT LEG 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 4.00 ft, AW07

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with 2998-B-231 Sh S70

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: FT-3325

Equipment Class: (0) Other

Equipment Description: FLOW TRANSMITTER FOR HPSI TO HOT LEG 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
Rod-hung overhead piping is supported vertically at approx 8' on center, with ductile connections at top. No fall hazard.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: BAM PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: BORIC ACID MAKE-UP PUMP 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, -0.50 ft, AW09

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-590

Seismic Walkdown Checklist (SWC)

Equipment ID No.: BAM PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: BORIC ACID MAKE-UP PUMP 2A

- | | | |
|----|--|-----|
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |
|----|--|-----|

Interaction Effects

- | | | |
|----|---|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures?
<i>Scaffold within zone of influence is anchored and has low mass. No fall issue.</i> | Yes |
|----|---|-----|

- | | | |
|----|--|-----|
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
|----|--|-----|

- | | | |
|----|--|-----|
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
|----|--|-----|

- | | | |
|-----|---|-----|
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |
|-----|---|-----|

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
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	<u>Hunter A. Young</u>	<u>11/16/12</u>
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Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: BAM PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: BORIC ACID MAKE-UP PUMP 2A

Seismic Walkdown Checklist (SWC)Equipment ID No.: CHG PP 2AEquipment Class: (5) Horizontal PumpsEquipment Description: CHARGING PUMP 2AProject: St Lucie 2 SWELLocation (Bldg, Elev, Room/Area): RAB, 1.00 ft, AW10

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-589 and 2998-G-590</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: CHG PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: CHARGING PUMP 2A

Interaction Effects

- | | | |
|-----|---|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures?

<i>Overhead hoist is well supported.</i> | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Rod hung, flexible pipe is frequently supported vertically. No seismic concerns.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SDC HX 2A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SHUTDOWN COOLING HEAT EXCHANGER 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 3.00 ft, AW05

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-589

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SDC HX 2A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SHUTDOWN COOLING HEAT EXCHANGER 2A

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Noted scaffold nearby with less than desirable bracing. However, scaffolding is low mass, low in height, and anchored well enough to be judged as adequate with regard to seismic concerns.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 4.16 KV SWGR 2AB

Equipment Class: (1) Motor Control Centers

Equipment Description: 4.16 KV SWGR 2AB

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 19.00 ft, AW14

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Manufacturer sill channels embedded in concrete pad per 2998-G-591

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? No

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 4.16 KV SWGR 2AB

Equipment Class: (1) Motor Control Centers

Equipment Description: 4.16 KV SWGR 2AB

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? No
Noted unstable sign that could impact door. Corrected on spot by Operations by moving sign to a safe distance. AR was generated to track this issue. Equipment was operable during outage.
- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
- 9. Do attached lines have adequate flexibility to avoid damage? Yes
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: BAMT 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: BORIC ACID MAKE-UP TANK 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 18.00 ft, AW36

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-589

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: BAMT 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: BORIC ACID MAKE-UP TANK 2B

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 4.16 KV SWGR 2B3

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 4.16 KV SWITCHGEAR 2B3

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW15

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|--|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware?
<i>Manufacturer sill channel embedded.</i> | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Manufacturer sills embedded per drawing 2998-G-352</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 4.16 KV SWGR 2B3

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 4.16 KV SWITCHGEAR 2B3

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|---|-----|
| 11. | <p>Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?</p> <p><i>Cubicle 2B3-08 fuse on south wall was missing nut on back. AR was generated to resolve this issue. Per PSL, fuse is seismically insensitive. Fuse is mounted vertically and is in tight contact w/ cabinet frame, indicating bolt is tight. AR issued to verify if bolt is properly torqued and to add nut, if required. No current operability issue.</i></p> <p><i>Item out of service so some internal doors are open and spare parts rest inside. PSL to verify items are resolved prior to placing equipment in service. No Seismic Issue</i></p> <p><i>Cubicle 2B3-05 had piece of plastic at bottom. PSL to verify item removed. No seismic issue.</i></p> | Yes |
|-----|---|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 4.16 KV SWGR 2B3

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 4.16 KV SWITCHGEAR 2B3

Cubicle 2B3-10 is missing red light cover. No seismic concern.

Small plastic wrapper found inside cubicle 2B3-11. PSL to ensure trash is removed prior to placing equipment in service. No seismic concern.

Missing panel bolt on back of 2B3-06. No seismic concern.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2B6

Equipment Class: (1) Motor Control Centers

Equipment Description: 480V MCC 2A6

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW15

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|--|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-837 Sh. 1</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2B6

Equipment Class: (1) Motor Control Centers

Equipment Description: 480V MCC 2A6

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
MCC with open panels partially pulled off for servicing, confirmed as out of service per Operations. PSL to verify that all panels are secured prior to placing equipment in service. No issue.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: STA SVC XFMR 2B-2

Equipment Class: (4) Transformers

Equipment Description: STATION SERVICE TRANSFORMER 2B-2

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW15

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-837 Sh. 1

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: STA SVC XFMR 2B-2

Equipment Class: (4) Transformers

Equipment Description: STATION SERVICE TRANSFORMER 2B-2

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Verify whether bolting to 480V 2B2 to the north is an analyzed condition (check equipment qualification). Per PSL, items were purchased together from the vendor and therefore analyzed for that condition. No seismic concern.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Seismic Walkdown Checklist (SWC)Equipment ID No.: HSCP 2AEquipment Class: (20) Instrumentation and Control Panels and CabinetsEquipment Description: HOT SHUTDOWN CONTROL PANEL 2AProject: St Lucie 2 SWELLocation (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW16

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|--|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-591 Sh. 2</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HSCP 2A

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: HOT SHUTDOWN CONTROL PANEL 2A

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
In middle cabinet, 2 bolts missing on panels behind light. No adverse seismic concern, but notified PSL.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V DC BUS 2B

Equipment Class: (14) Distribution Panels

Equipment Description: 125V DC BUS POWER DISTRIBUTION PANEL ESS-SB

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW17

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V DC BUS 2B

Equipment Class: (14) Distribution Panels

Equipment Description: 125V DC BUS POWER DISTRIBUTION PANEL ESS-SB

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
- 5/8" gap front to back direction to concrete wall to north. For a lower bound frequency estimate of 5 Hz (reasonable for floor-mounted distribution panel) at 4% damping on the 43' elevation of the RAB (M.P. 3), the horizontal ISRS is 0.7g (STD-C-004). Upper-bound estimated displacement for cantilevered structure with 1.6 modal shape factor is then $(1.6 * 0.70g * 386.4 \text{ in/s}^2/g) / (2 * \pi * 5 \text{ Hz})^2 = 0.44 \text{ in}$. Therefore, gap is adequate.*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
- 3 missing panel bolts (broken corner) in middle cabinet. No adverse seismic concerns. AR was generate to resolve issue.*

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V DC BUS 2B

Equipment Class: (14) Distribution Panels

Equipment Description: 125V DC BUS POWER DISTRIBUTION PANEL ESS-SB

Hunter A. Young

11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: BATT CHGR 2B

Equipment Class: (16) Inverters

Equipment Description: BATTERY CHARGER 2B (68 KVA)

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW17

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|---|-----|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-837 Sh. 1</i> | Yes |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: BATT CHGR 2B

Equipment Class: (16) Inverters

Equipment Description: BATTERY CHARGER 2B (68 KVA)

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Seismic Walkdown Checklist (SWC)Equipment ID No.: STC INVTR 2BEquipment Class: (16) InvertersEquipment Description: STATIC INVERTER 2B (10 KVA)Project: St Lucie 2 SWELLocation (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW17

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|---|-----|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Per 2998-G-591 Sheet 2, Inverter welded with 3/16" fillet, 4" long @ each stiffener.</i> | Yes |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: STC INVTR 2B

Equipment Class: (16) Inverters

Equipment Description: STATIC INVERTER 2B (10 KVA)

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|---|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
<i>Could not open internals due to in-service equipment. Verify no adverse conditions exist when internals can be accessed.</i> | Yes |
|-----|---|-----|

Further inspection of inverters confirmed that significant dismantling would be required to open the panels, and since external anchorage was provided it is not required to inspect internals.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 120V INSTR BUS 2MC

Equipment Class: (14) Distribution Panels

Equipment Description: 120V AC INSTRUMENT BUS 2MC DISTRIBUTION PANEL

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW18

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 120V INSTR BUS 2MC

Equipment Class: (14) Distribution Panels

Equipment Description: 120V AC INSTRUMENT BUS 2MC DISTRIBUTION PANEL

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures?

<i>Scaffolding is flush with east edge at panel. Equipment out of service so no adverse condition but against procedure. PSL to verify scaffold is assessed prior to in-servicing.</i> | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?

<i>Missing latch on outside. All other latches present, so no adverse condition to. AR was generated to resolve issue.</i> | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V DC BUS MA

Equipment Class: (14) Distribution Panels

Equipment Description: 125V DC BUS POWER DISTRIBUTION PANEL RPS-MA

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW18

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V DC BUS MA

Equipment Class: (14) Distribution Panels

Equipment Description: 125V DC BUS POWER DISTRIBUTION PANEL RPS-MA

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes
Conduit fireproofing is flush against panel siding. No adverse seismic concerns because contact is near support and the panel and conduit are attached to the same support.
- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
- 9. Do attached lines have adequate flexibility to avoid damage? Yes
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes
1 of 2 panel latches is missing on the panels. Equipment is out of service so there are no adverse seismic concerns for the equipment. AR was generated to resolve this issue.

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480PZR XFMR 2A3

Equipment Class: (4) Transformers

Equipment Description: 480V PRESSURIZER TRANSFORMER 2A3

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW18

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480PZR XFMR 2A3

Equipment Class: (4) Transformers

Equipment Description: 480V PRESSURIZER TRANSFORMER 2A3

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Transformer is bolted to the Switchgear 2A3 to the north. PSL to provide documentation confirming connection has been analyzed and does not invalidate individual equipment seismic qualifications.

Per PSL, items were purchased together from the vendor and therefore analyzed for that condition. No seismic concern.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480PZR XFMR 2A3

Equipment Class: (4) Transformers

Equipment Description: 480V PRESSURIZER TRANSFORMER 2A3

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2AB

Equipment Class: (5) Horizontal Pumps

Equipment Description: 480V MCC FOR RAB MISC POWER SUPPLIES

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW18

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2AB

Equipment Class: (5) Horizontal Pumps

Equipment Description: 480V MCC FOR RAB MISC POWER SUPPLIES

- | | | |
|----|---|----------------|
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures?

<i>Padding provided between MCC and 2-4217 to the south. Gap is in the side to side direction and MCC frequency accordingly judged as large enough to preclude gap closure with padding. No seismic concern.</i> | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 480V MCC 2AB

Equipment Class: (5) Horizontal Pumps

Equipment Description: 480V MCC FOR RAB MISC POWER SUPPLIES

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RX TRIP SWGR

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: REACTOR TRIP SWITCHGEAR

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW18

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No
2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RX TRIP SWGR

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: REACTOR TRIP SWITCHGEAR

-
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes
4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Interaction Effects

-
7. Are soft targets free from impact by nearby equipment or structures? Yes
Scaffold nearby well-anchored with good clearance.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Heavy cable tray overhead rigidly supported.
9. Do attached lines have adequate flexibility to avoid damage? Yes
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RX TRIP SWGR

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: REACTOR TRIP SWITCHGEAR

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V BATT 2A

Equipment Class: (15) Batteries on Racks

Equipment Description: 125V DC BATTERY 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW19

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V BATT 2A

Equipment Class: (15) Batteries on Racks

Equipment Description: 125V DC BATTERY 2A

- | | | |
|----|--|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-594</i> | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Interaction Effects

- | | | |
|----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V BATT 2A

Equipment Class: (15) Batteries on Racks

Equipment Description: 125V DC BATTERY 2A

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
No foam spacers between battery cells. Condition is analyzed as acceptable per PCM-034-995

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: ISOL PNL 2A

Equipment Class: (14) Distribution Panels

Equipment Description: ISOLATION PANEL 2A -Control Room Inaccessibility Transfer Panel

Project: St Lucie 2 SWEL

Seismic Walkdown Checklist (SWC)

Equipment ID No.: ISOL PNL 2A

Equipment Class: (14) Distribution Panels

Equipment Description: ISOLATION PANEL 2A -Control Room Inaccessibility Transfer Panel

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW20

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No
2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes
4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Interaction Effects

Seismic Walkdown Checklist (SWC)

Equipment ID No.: ISOL PNL 2A

Equipment Class: (14) Distribution Panels

Equipment Description: ISOLATION PANEL 2A -Control Room Inaccessibility Transfer Panel

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date: 11/16/12	
	Hunter A. Young	11/16/12	

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: STA SVC XFMR 2A-2

Equipment Class: (4) Transformers

Equipment Description: STATION SERVICE TRANSFORMER 2A-2

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW20

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: STA SVC XFMR 2A-2

Equipment Class: (4) Transformers

Equipment Description: STATION SERVICE TRANSFORMER 2A-2

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Station Service Transformer 2A-2 is bolted to 480V load Center to South & 480V switchgear to North. PSL is to verify that as observed condition has been analyzed.

Per PSL, items were purchased together from the vendor and therefore analyzed for that condition. No seismic concern.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: STA SVC XFMR 2A-2

Equipment Class: (4) Transformers

Equipment Description: STATION SERVICE TRANSFORMER 2A-2

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-4A

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR RAB MAIN SUPPLY SYSTEM

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW32

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-4A

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR RAB MAIN SUPPLY SYSTEM

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
Temporary scaffolding in the vicinity. Equipment is out of service due to outage. PSL to resolve prior to placing equipment in service. No seismic concerns.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-6A Plenum

Equipment Class: (10) Air Handlers

Equipment Description: FILTER PLENUM

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW33

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-6A Plenum

Equipment Class: (10) Air Handlers

Equipment Description: FILTER PLENUM

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|---|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
<i>MAS-25-1 temperature indicator mounted on side of plenum with loose nut on mounting bolt. Indicator is light and has enough capacity in the three remaining bolts to preclude seismic hazard. AR was generated to resolve the issue.</i> | Yes |
|-----|---|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-6B

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR SHIELD BUILDING VENTILATION SYSTEM

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW33

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-6B

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR SHIELD BUILDING VENTILATION SYSTEM

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes
Temporary scaffolding is braced to equipment skid. Equipment is out of service due to outage, therefore no seismic concern. PSL to verify scaffolding procedure adherence prior to placing equipment in service.
- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
- 9. Do attached lines have adequate flexibility to avoid damage? Yes
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Shaft cover missing bolt on west side. No seismic concern. AR was generated to resolve issue.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-9A

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR ECCS VENTILATION SYSTEM

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW33

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|----------------|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVE-9A

Equipment Class: (9) Fans

Equipment Description: CENTRIFUGAL FAN FOR ECCS VENTILATION SYSTEM

Interaction Effects

- | | | |
|-----|---|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures?

<i>Temporary scaffolding is braced off equipment that is out of service due to outage. No seismic concerns. PSL to verify scaffold procedure adherence prior to placing equipment in service.</i> | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Heavy cable trays overhead with rugged support. No seismic concerns.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Seismic Walkdown Checklist (SWC)

Equipment ID No.: PT-07-4B1

Equipment Class: (0) Other

Equipment Description: PRESSURE TRANSMITTER CONTAINMENT PRESSURE

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 47.00 ft, AW33

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-B-231 Sh. S70

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: PT-07-4B1

Equipment Class: (0) Other

Equipment Description: PRESSURE TRANSMITTER CONTAINMENT PRESSURE

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V BATT 2B

Equipment Class: (15) Batteries on Racks

Equipment Description: 125V DC BATTERY 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 43.00 ft, AW35

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-594

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 125V BATT 2B

Equipment Class: (15) Batteries on Racks

Equipment Description: 125V DC BATTERY 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
No foam spacers between battery cells. Condition is analyzed as acceptable per PCM-034-995

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVA ACC-3A

Equipment Class: (11) Chillers

Equipment Description: AIR HANDLING UNIT FOR CONTROL ROOM AREA SUPPLY

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 62.00 ft, AW38

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVA ACC-3A

Equipment Class: (11) Chillers

Equipment Description: AIR HANDLING UNIT FOR CONTROL ROOM AREA SUPPLY

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Chiller transformers with approx 3/8" gap confirmed to have internal transverse stiffeners in weak direction. Therefore gap is adequate.

Temporary scaffolding in area due to outage. All equipment in the area confirmed as out-of-service per Operations. No seismic concerns. PSL to verify procedure adherence prior to placing equipment in service.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVA ACC-3A

Equipment Class: (11) Chillers

Equipment Description: AIR HANDLING UNIT FOR CONTROL ROOM AREA SUPPLY

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: ESC SB

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: ENGINEERED SAFEGUARD LOGIC CABINET SB

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 62.00 ft, AW13

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware?
<i>Anchorage verified from 2889-G-837 Sht. 1.</i> | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: ESC SB

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: ENGINEERED SAFEGUARD LOGIC CABINET SB

Interaction Effects

- | | | |
|-----|---|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Drop ceiling overhead with tiles. Ceiling verified to pose no seismic interaction hazard per IPEEE for Unit 2.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVCB SA

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: HEATING AND VENTILATION CONTROL BOARD

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 62.00 ft, AW13

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Cannot view anchorage due to carpeting. Anchorage of equipment confirmed by 8770-G-837 Sht. 1 & 2.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVCB SA

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: HEATING AND VENTILATION CONTROL BOARD

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Suspended ceiling with tiles overhead. Ceiling verified to pose no seismic interaction hazard per IPEEE for Unit 2.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVCB SB

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: HEATING AND VENTILATION CONTROL BOARD

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 62.00 ft, AW13

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Cannot view anchorage due to carpeting. Anchorage of equipment confirmed by 8770-G-837 Sht. 1 & 2.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVCB SB

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: HEATING AND VENTILATION CONTROL BOARD

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Suspended ceiling with tiles overhead. Ceiling verified to pose no seismic interaction hazard per IPEEE for Unit 2.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: QSPDS 2B

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: INADEQUATE CORE CLG CONTROL CABINET SB

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 62.00 ft, AW13

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor grout cracks. Not a seismic concern.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage is consistent with drawing 2998-G-591 Sh. 6 Rev. 001

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: QSPDS 2B

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: INADEQUATE CORE CLG CONTROL CABINET SB

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Suspended ceiling with tiles overhead. Ceiling verified to pose no seismic interaction hazard per IPEEE for Unit 2.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RTGB-206

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: REACTOR TURBINE GENERATOR CONTROL BOARD 206

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RAB, 62.00 ft, AW13

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|----------------|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware?

<i>Cannot view anchorage due to carpeting. Anchorage of equipment confirmed by 8770-G-837 Sht. 1 & 2.</i> | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RTGB-206

Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: REACTOR TURBINE GENERATOR CONTROL BOARD 206

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Suspended ceiling with tiles overhead. Ceiling verified to pose no seismic interaction hazard per IPEEE for Unit 2.</i> | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1A

Equipment Class: (11) Chillers

Equipment Description: CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RCB, 45.00 ft, AW01

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1A

Equipment Class: (11) Chillers

Equipment Description: CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Noted missing nut on wire meshing bolts. No seismic concerns. PSL was alerted.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1A

Equipment Class: (11) Chillers

Equipment Description: CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1D

Equipment Class: (11) Chillers

Equipment Description: CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RCB, 45.00 ft, AW01

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1D

Equipment Class: (11) Chillers

CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL
OPERATION

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Noted missing nuts for wire mesh bolts. No seismic concerns. PSL was alerted.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1D

Equipment Class: (11) Chillers

CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL
OPERATION

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SIT 2A1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SAFETY INJECTION TANK 2A1

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RCB, 62.00 ft, AW01

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-795 Sh. 1

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SIT 2A1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SAFETY INJECTION TANK 2A1

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Noted scaffolding in area near small outlet tubing for the tank. Good anchorage and clearance. No seismic issues.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1B

Equipment Class: (11) Chillers

CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL
OPERATION

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RCB, 45.00 ft, AW02

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1B

Equipment Class: (11) Chillers

Equipment Description: CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Noted missing nuts on bolts connecting wire meshing to frame. No seismic concerns. PSL was alerted.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HVS-1B

Equipment Class: (11) Chillers

Equipment Description: CONTAINMENT FAN COOLER FOR RCB A/C SYSTEM DURING NORMAL OPERATION

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SIT 2B1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SAFETY INJECTION TANK 2B1

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): RCB, 62.00 ft, AW02

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-795 Sh. 1

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: SIT 2B1

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SAFETY INJECTION TANK 2B1

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: AFW PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY FEEDWATER PUMP 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 20.00 ft, AW21

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-489.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: AFW PP 2A

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY FEEDWATER PUMP 2A

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|---|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
<i>Noted temporary outage scaffold anchored to pump skid. Out of service so no adverse seismic concern currently. PSL to verify scaffolding removed or evaluated per procedure prior to bringing Aux Feedwater Pump in-service.</i> | Yes |
|---|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: AFW PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY FEEDWATER PUMP 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 20.00 ft, AW21

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-G-489.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: AFW PP 2B

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY FEEDWATER PUMP 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Noted temporary outage scaffold anchored to pump skid. Out of service so no adverse seismic concern currently. PSL to verify scaffolding removed or evaluated per procedure prior to bringing Aux Feedwater Pump in-service.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-13

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B

Equipment Description: DISCH

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 21.00 ft, AW21

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-13

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B

Equipment Description: DISCH

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-13

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B

Equipment Description: DISCH

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-14

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B

Equipment Description: DISCH

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 21.00 ft, AW21

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-14

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B

Equipment Description: DISCH

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-14

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FOR CROSSTIE BETWEEN AFW PP 2A & 2B

Equipment Description: DISCH

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: AFW PP 2C

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY FEEDWATER PUMP 2C

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 20.00 ft, AW22

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|-----|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Yes |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Yes |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
<i>Anchorage consistent with drawing 2998-G-489.</i> | Yes |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: AFW PP 2C

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY FEEDWATER PUMP 2C

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Noted temporary outage scaffolding to the North is kicked off the pump skid. Out of service so no adverse seismic concern currently. PSL to verify scaffolding removed or evaluated per procedure prior to bringing Aux Feedwater Pump in-service.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: AFW PP 2C

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY FEEDWATER PUMP 2C

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-13

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ISOLATION VALVE FOR SG 2A MAIN STEAM TO AFW

Equipment Description: PP 2C

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 28.00 ft, AW22

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-13

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ISOLATION VALVE FOR SG 2A MAIN STEAM TO AFW

Equipment Description: PP 2C

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-13

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ISOLATION VALVE FOR SG 2A MAIN STEAM TO AFW

Equipment Description: PP 2C

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-3

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: THROTTLE/TRIP VALVE FOR AUXILIARY FEEDWATER PUMP 2C

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 22.00 ft, AW22

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-3

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: THROTTLE/TRIP VALVE FOR AUXILIARY FEEDWATER PUMP 2C

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MSIV ACCUM 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: MAIN STEAM ISOLATION VALVE ACCUMULATOR 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 44.00 ft, AW23

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable
Mounted to building steel.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Yes
Anchorage consistent with drawing 2998-11413 Rev. 1

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MSIV ACCUM 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: MAIN STEAM ISOLATION VALVE ACCUMULATOR 2B

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes
Temporary transient materials are located nearby equipment due outage, but no hazard to soft targets on tank because equipment is out of service. PSL to verify adherence to housekeeping procedure prior to placing equipment in service.

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

- 9. Do attached lines have adequate flexibility to avoid damage? Yes

- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Ladder anchored to equipment saddles. Equipment is out of Service therefore there are no adverse conditions at the moment. PSL to verify mounting meets procedure when equipment is brought in service.

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MSIV ACCUM 2B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: MAIN STEAM ISOLATION VALVE ACCUMULATOR 2B

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-08-1A

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 36.00 ft, AW24

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-08-1A

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2A

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date: 11/16/12
	Hunter A. Young	11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-09-1A

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-3

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 36.00 ft, AW24

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-09-1A

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-3

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-09-1B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-3

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 36.00 ft, AW24

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-09-1B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-3

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-14

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ISOLATION VALVE FOR MV-08-18A ATMOSPHERIC

Equipment Description: DUMP VLV

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 45.00 ft, AW24

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-14

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ISOLATION VALVE FOR MV-08-18A ATMOSPHERIC
 Equipment Description: DUMP VLV

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Yes
Temporary scaffold is currently located in the zone of influence. The unit is currently out of service, therefore there is no current seismic concern. PSL to verify scaffold procedure adherence prior to in-servicing.
- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
- 9. Do attached lines have adequate flexibility to avoid damage? Yes
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

- 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-14

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: MOTOR OPERATED ISOLATION VALVE FOR MV-08-18A ATMOSPHERIC
DUMP VLV

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-19A

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ATMOSPHERIC DUMP VALVE FOR STM GEN 2A

Equipment Description: MAIN STEAM

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 45.00 ft, AW24

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-19A

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ATMOSPHERIC DUMP VALVE FOR STM GEN 2A

Equipment Description: MAIN STEAM

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

Noted temporary hoist and chain overhead. Valve out of service therefore there is no current seismic issue. PSL to verify overhead items are removed prior to startup.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-08-19A

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED ATMOSPHERIC DUMP VALVE FOR STM GEN 2A

Equipment Description: MAIN STEAM

Seismic Walkdown Checklist (SWC)Equipment ID No.: MV-09-10Equipment Class: (8) Motor-Operated and Solenoid-Operated ValvesMOTOR OPERATED VALVE FROM AUX FW PP 2B DISCHARGE TOEquipment Description: STEAM GEN 2BProject: St Lucie 2 SWELLocation (Bldg, Elev, Room/Area): TRSL, 43.00 ft, AW24

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|----------------|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-10

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: MOTOR OPERATED VALVE FROM AUX FW PP 2B DISCHARGE TO
STEAM GEN 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-10

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM AUX FW PP 2B DISCHARGE TO

Equipment Description: STEAM GEN 2B

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-9

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM AUX FW PP 2A DISCHARGE TO

Equipment Description: STEAM GEN 2A

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 43.00 ft, AW24

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|----------------|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-9

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM AUX FW PP 2A DISCHARGE TO

Equipment Description: STEAM GEN 2A

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-9

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM AUX FW PP 2A DISCHARGE TO

Equipment Description: STEAM GEN 2A

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-08-1B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 36.00 ft, AW25

Manufacturer/Model: _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-08-1B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM ISOLATION VALVE (MSIV) FOR STEAM GENERATOR 2B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Yes

*Noted temporary scaffolding due to outage. No adverse seismic conditions.
PSL to verify procedural adherence prior to placing equipment in service.*

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes

9. Do attached lines have adequate flexibility to avoid damage? Yes

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-09-2A

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-4

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 36.00 ft, AW25

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | |
|--|----------------|
| 1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | No |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Not Applicable |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Not Applicable |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Not Applicable |
| 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Not Applicable |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-09-2A

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN FEEDWATER ISOLATION VALVE "A" TRAIN AT PENETRATION P-4

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| | <i>Noted temporary scaffolding due to outage. No adverse seismic conditions. PSL to verify procedural adherence prior to placing equipment in service.</i> | |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: HCV-09-2B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-4

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 36.00 ft, AW25

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)Equipment ID No.: HCV-09-2BEquipment Class: (7) Fluid-Operated ValvesEquipment Description: MAIN FEEDWATER ISOLATION VALVE "B" TRAIN AT PENETRATION P-4**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures? Yes
*Noted temporary scaffolding due to outage. No adverse seismic conditions.
 PSL to verify procedural adherence prior to placing equipment in service.*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by: Seth W. Baker Date: 11/16/12Hunter A. Young 11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-12

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM AUX FW PP 2C DISCHARGE TO

Equipment Description: STEAM GEN 2B

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): TRSL, 43.00 ft, AW25

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Not Applicable

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-12

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM AUX FW PP 2C DISCHARGE TO

Equipment Description: STEAM GEN 2B

Interaction Effects

- | | |
|---|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|--|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: MV-09-12

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

MOTOR OPERATED VALVE FROM AUX FW PP 2C DISCHARGE TO

Equipment Description: STEAM GEN 2B

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RWT

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: REFUELING WATER TANK

Project: St Lucie 2 SWEL

Location (Bldg, Elev, Room/Area): YD, 19.00 ft, AW39

Manufacturer/Model:

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

- | | | |
|----|---|-----|
| 1. | Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Yes |
| 2. | Is the anchorage free of bent, broken, missing or loose hardware? | Yes |
| 3. | Is the anchorage free of corrosion that is more than mild surface oxidation?

<i>Significant paint chipping and discoloration on anchor bolts, indicative of corrosion. Unknown due to the heavy application of paint whether bolt diameters are effectively reduced. AR and WO issued to clean and assess the condition of bolts. Per PSL, based on capacity of existing anchorage and visible degradation, no current operability issues.</i> | No |
| 4. | Is the anchorage free of visible cracks in the concrete near the anchors?

<i>Minor cracking and no evidence of reinforcement yielding, therefore no seismic concerns.</i> | Yes |
| 5. | Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Yes |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Yes |

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RWT

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: REFUELING WATER TANK

Interaction Effects

- | | | |
|-----|--|-----|
| 7. | Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Yes |
| 9. | Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | | |
|-----|--|-----|
| 11. | Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? | Yes |
|-----|--|-----|

Comments

Detailed signed records of the checklists are available at the site.

Evaluated by:	<u>Seth W. Baker</u>	Date: <u>11/16/12</u>
	<u>Hunter A. Young</u>	<u>11/16/12</u>

D

Area Walk-By Checklists (AWCs)

Table D-1: Summary of Area Walk-By Checklists

Area Walk-by	Description	ID	Page
AW01	RCB 62' EAST	HVS-1A HVS-1D SIT 2A1	292
AW02	RCB 62' WEST	HVS-1B SIT 2B1	294
AW03	DIESEL GEN B ROOM	480V MCC 2B7 DG 2B CNTL PNL DG 2B S/U AIR TK 2B1 DG DO DAYTK 2B1 DG ENG 2B2 (LUBO CLR) DG ENG 2B2 (RDTR) DSL GEN 2B PP-212 Distribution Panel PP-212 XFMR SKBK LUBO AC PP 2B1 SKBK LUBO DC PP 2B1	296
AW04	RAB -0.5' NEAR HYDRAZINE TANK	IRS HYDRZN PP 2A IRS HYDRZN STOR TK SE-07-3B	298
AW05	RAB 3' SDC HEAT EXCHANGER 2A ROOM	SDC HX 2A	300
AW06	RAB -6' LPSI PUMP 2B ROOM	LPSI PP 2B	302
AW07	RAB -0.5' CORRIDOR NEAR 480V MCC 2B2	480V MCC 2B2 FT-3301 FT-3325	304
AW08	RAB -10' CNTMT SPRAY PUMP ROOM 2B	CNTMT SPR PP 2B	306
AW09	RAB -0.5' BAMT ROOM	BAM PP 2A	308
AW10	RAB 1' CHG PP 2A ROOM	CHG PP 2A	310
AW11	DOST 19' 2B ROOM	DG FO XFR PP 2B DOST 2B	312
AW12	CST	COND STOR TK	314
AW13	CTRL ROOM	ESC SB HVCB SA HVCB SB QSPDS 2B RTGB-206	316
AW14	RAB 19' MG SET ROOM	4.16 KV SWGR 2AB 480V SWGR 2AB	319
AW15	RAB 43' SOUTHWEST B	4.16 KV SWGR 2B3	321

Area Walk-by	Description	ID	Page
	SWGR ROOM	480V MCC 2B6 480V SWGR 2B2 STA SVC XFMR 2B-2	
AW16	RAB 43' REMOTE SHUTDOWN PANEL ROOM	HSCP 2A	323
AW17	RAB 43' NORTHWEST B SWGR ROOM	125V DC BUS 2B BATT CHGR 2B STC INVTR 2B	325
AW18	RAB 43' NORTHWEST A SWGR ROOM	120V INSTR BUS 2MC 125V DC BUS MA 480PZ BUS2A3 480PZR XFMR 2A3 480V MCC 2AB RX TRIP SWGR	327
AW19	RAB 43' DC BATT ROOM 2A	125V BATT 2A	329
AW20	RAB 43' EAST A SWGR ROOM	ISOL PNL 2A STA SVC XFMR 2A-2	331
AW21	TRSL 19.5' SOUTH ROOM	AFW PP 2A AFW PP 2B MV-09-13 MV-09-14	333
AW22	TRSL 19.5' NORTH ROOM	AFW PP 2C MV-08-13 MV-08-3	335
AW23	TRSL 36' SOUTHWEST OUTSIDE NEAR MSIV ACCUM.	MSIV ACCUM 2B	337
AW24	TRSL 36' NORTH ROOM	HCV-08-1A HCV-09-1A HCV-09-1B MV-08-14 MV-08-19A MV-09-10 MV-09-9	339
AW25	TRSL 36' SOUTH ROOM	HCV-08-1B HCV-09-2A HCV-09-2B MV-09-12	341
AW26	INTK 37' INTAKE STRUCTURE ROOF	HVE-41A	343
AW27	INTK 11' MECH VALVE PIT	MV-21-2 MV-21-3	345
AW28	INTK 21' ICW PUMP ROOM	ICW PP 2C	347
AW29	CCW 26' AREA	CCW HX 2B CCW PP 2B HCV-14-8B MV-14-2 MV-14-4 SS-21-1B SS-21-1B (CNTL PNL) TCV-14-4B	349
AW30	FHB 20' FUEL POOL HX 2A ROOM	FT-14-2 FUEL POOL HX 2A	351

Area Walk-by	Description	ID	Page
AW31	FHB 20' FUEL POOL PUMP ROOM	FUEL POOL PP 2A FUEL POOL PP 2B	353
AW32	RAB 43' 4A PLENUM	HVS-4A	355
AW33	RAB 43' HVAC EQUIPMENT ROOM	HVE-6A Plenum HVE-6B HVE-9A PT-07-4B1	357
AW34	FHB 48' FUEL POOL COOLING ROOM	HVE-16A	359
AW35	RAB 43' DC BATT ROOM 2B	125V BATT 2B	361
AW36	RAB 19.5' BMT ROOM	BAMT 2B	363
AW37	RAB -7' HPSI 2A ROOM	HPSI PP 2A	365
AW38	RAB 62' CTRL ROOM AC ROOM	HVA/ACC-3A	367
AW39	YD 19' RWT	RWT	369

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW01 - RCB 62' EAST

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes
-

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW01 - RCB 62' EAST

- | | | |
|----|--|-----|
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?
<i>Due to outage, numerous temporary cabinets and misc installations are within zone of influence of equipment. Notified by Operations that current mode is defueled and that the area will be cleared before initiation of operating mode. No seismic issues.</i> | Yes |
| 8. | Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?
<i>Temperature indicator 298J has missing bolt on panel door. No seismic issue. PSL was alerted.</i> | Yes |

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW02 - RCB 62' WEST

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?
<i>Noted platform mounted on top of SIT 2B2 that is anchored to the containment shell. Concern for overstress due to differential displacement. Given the tank's rigidity and the capability for platform legs to go nonlinear, no adverse seismic issue exists.</i> | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW02 - RCB 62' WEST

Same comments as Area Walkby for SIT-2A1 regarding housekeeping. No seismic concerns.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW03 - DIESEL GEN B ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?
<i>Startup air tanks 2B3 and 2B4 had gaps between tank skirt and mounting channel similar to 2B1. Judged not to be an adverse seismic condition due to sufficient bearing and the ability of bolts to take tension. PSL was notified of gap.</i> | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?
<i>Overhead threaded fire piping is rigidly supported frequently and verified by Operations to be normally dry. Therefore no spray hazard exists.</i> | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW03 - DIESEL GEN B ROOM

Due to outage, many fans and other transient materials are within the zone of influence of safety related equipment. Operations confirmed that all equipment within proximity of transient items is inoperable during outage. No adverse seismic concerns.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW04 - RAB -0.5' NEAR HYDRAZINE TANK

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?
<i>LIC-6632 appeared to have missing mounting nuts but confirmed as tapped. Therefore no issue.</i> | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Overhead cable trays are well supported.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>On the west wall, a 4" diameter pipe hung (domestic drain line per Operations) from a 14" rod does not have effective lateral supports near conduit to j-boxes B312 and BC-2001. Concern exists that pipe movement could damage the conduit. A lower bound frequency for pendulum action is 5.25 Hz (=sqrt((386.4 in/s^2) / 14 in)). Per STD-C-004 the peak acceleration for 2% damping at RAB El. 19.5' is 2.74g. The upper bound displacement estimate is then...2.74g*386.4 in/(s^2*g) / (2*pi*5.25 Hz)^2 = 0.96". Therefore the 2" gap is adequate.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?
<i>Fire piping with threaded connections are overhead, but well supported so as to preclude spray hazard.</i> | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW04 - RAB -0.5' NEAR HYDRAZINE TANK

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes

Argon tank within zone of influence of B2717 tied off but not secured in all directions.

Eyewash station near PI-6633 could overturn and damage during SSE.

Temporary electrical cabinet (approx 9' x 3' x 3') is a potential overturn hazard to equipment.

**All above items are inoperable per Operations. No seismic concerns, but alerted PSL to confirm that transient items will be secured at end of outage.*

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW05 - RAB 3' SDC HEAT EXCHANGER 2A ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>Noted scaffolding plank with little gap to relieve valve stem in south-west corner of room. Scaffold is rigidly anchored in direction of concern and valve is rugged, therefore no seismic concerns.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW05 - RAB 3' SDC HEAT EXCHANGER 2A ROOM

Noted scaffolding that is short and with low enough mass as to preclude damage to structures, but it exhibits less than desirable anchorage and bracing, potentially in violation of scaffolding procedure. Also noted storage material on top of south scaffold. All equipment in the area is inoperable due to outage, so no immediate seismic concerns. PSL was alerted to confirm that housekeeping/scaffolding procedure adherence will be addressed at end of outage.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW06 - RAB -6' LPSI PUMP 2B ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes
Overhead hoist is well supported.

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes
Hoist chains near small bore tubing, but tubing is protected by large angle member, therefore no seismic issue.

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW06 - RAB -6' LPSI PUMP 2B ROOM

General housekeeping concerns regarding transient materials throughout area. No soft targets in the area and, per Operations, equipment is inoperable due to outage.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW07 - RAB -0.5' CORRIDOR NEAR 480V MCC 2B2

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Flexibly supported rod hung piping has lateral support intermittently at walls. No impact hazard exists.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>MCC 2A-2 is approx 1" from wall in north-south direction. Per PSL Doc. 2998-20070, MCC front-to-back frequency is indicated as 6-7 Hz. At 4% damping, horizontal spectral acceleration at 6 Hz (lower bound) at MP 5 of RAB is 1.15g. Upper-bound estimated displacement for cantilevered structure with 1.6 modal shape factor is then $(1.6 * 1.15g * 386.4 \text{ in/s}^2/g) / (2 * \pi * 6 \text{ Hz})^2 = 0.49 \text{ in}$. Therefore, gap is adequate.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?
<i>Threaded fire piping is rigidly supported to preclude excessive joint rotation, therefore no spray hazards exist.</i> | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW07 - RAB -0.5' CORRIDOR NEAR 480V MCC 2B2

associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?

General housekeeping issues associated with outage. No operating equipment within zone of influence.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW08 - RAB -10' CNTMT SPRAY PUMP ROOM 2B

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings.

Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Overhead hoist is well supported. No seismic issues.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW08 - RAB -10' CNTMT SPRAY PUMP ROOM 2B

General housekeeping issues associated with outage. Scaffolding has tight clearance to piping, but is well anchored. Scaffolding is also anchored to CS pump legs. Ladders are tied off to overhead piping. Per Operations, all equipment in the room is inoperable during outage and housekeeping/scaffolding issues will be addressed at the end of outage. Therefore no seismic concerns.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW09 - RAB -0.5' BAMT ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW09 - RAB -0.5' BAMT ROOM

Scaffolding with low height and low mass is within close proximity of out-of-service equipment. Per PSL, an AR will be generated to evaluate scaffold procedure adherence prior to equipment being made operable.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW10 - RAB 1' CHG PP 2A ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Overhead hoist is well supported.</i>

<i>Flexible, rod hung piping is frequently supported. No seismic concerns.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW10 - RAB 1' CHG PP 2A ROOM

General housekeeping and temporary scaffolding issues due to outage. All equipment in the area confirmed as out-of-service per Operations. No seismic concerns. PSL to verify procedure adherence prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW11 - DOST 19' 2B ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW11 - DOST 19' 2B ROOM

Noted scaffolding (tall with frequent anchorage kick struts in all directions) with engineering evaluation tag. Small clearances in some places, but rigid anchorage precludes possible impact. No adverse seismic concerns.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Noted cracked horizontal HHS section welded to wall embeds. The member does not support equipment and is therefore not a seismic concern. PSL was notified.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW12 - CST

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

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|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?
<i>Noted nitrogen line missing u-bolt near north-east entrance to room. Adequate vertical support will however be maintained, therefore no adverse seismic concerns exist. PSL was notified.</i> | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions?
<i>J-box B2R39 has significant corrosion near unistrut wall mount, indicative of strength loss. Per PSL, B2R39 is NNS. Item is not located over or adjacent to Safety Related SSCs. No current operability issue. Work request issued to repair degraded condition.</i> | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW12 - CST

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes
Noted missing panel bolts on door of B2P80 near north-east entrance. No adverse seismic condition exists. PSL was notified.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW13 - CTRL ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes
Raised flooring obscures view of anchorage in the area. Inspection of anchorage in the area would require significant dismantling of the floor. Anchorage of equipment confirmed by 8770-G-837 Sht. 1 & 2.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes
Suspended ceiling with tiles overhead. Ceiling verified to pose no seismic interaction hazard per IPEEE for Unit 2.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? No
Raised flooring confirmed to be supported by rugged cantilever supports at frequent intervals. No hazard.

Hydrogen recombiner in close proximity verified by PSL to be non-safety related. No issue.

*There is a gap of less than 1/32" between the Reactor Protection System cabinets and an adjacent printer table on the cabinet's north side. The gap is in the side-to-side direction of the cabinet, which is reasonably considered rigid. The table is anchored as well. Printer atop the table is approximately 4" from cabinet, which is adequate spacing to preclude impact due to sliding. Per STR-4698, SSE side-to-side maximum cabinet deflection is 0.144 inches (based upon frequency of 7 Hz). Point of contact with printer table is ~34" above floor whereas RPS cabinet is ~90" tall. Therefore, SSE deflection at point of interest is 0.0544 in (=34"/90" * 0.144"). This exceeds the 1/32" gap. Since Licensing Basis Evaluation cannot readily show gap acceptability, PSL has generated AR to resolve issue. RPS was out of service at time of discovery. Printer table was reworked to provide*

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW13 - CTRL ROOM

adequate clearance. No current operability issue.

- | | | |
|----|--|-----|
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?
<i>Transient items in area due to outage. Equipment in area confirmed to be out-of-service per Operations, therefore no seismic concerns. PSL to verify housekeeping procedure adherence prior to placing equipment in service.</i>

<i>Printers are close to RPS cabinets (approx 4"). Gap is adequate to preclude impact due to sliding at SSE levels. No seismic concern.</i> | Yes |
| 8. | Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? | Yes |

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW14 - RAB 19' MG SET ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Rugged overhead supports throughout area. Some rod hung piping with frequent vertical support. No fall hazards.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>Power Panel 241 Transformer and Waste Management System 2A Transformer are wall mounted but potentially flexible enough in side-to-side direction to impact their supports. Transformers confirmed to be QR, Seismic Category 2:1. Therefore potential contact with their supports poses no adverse concern since equipment functionality is not required.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW14 - RAB 19' MG SET ROOM

temporary installations (e.g., scaffolding, lead shielding)?

General housekeeping transient materials stored in open areas due to out-of-service state of most equipment.

In-service items 4.16kV SWGR 2AB had an unstable sign adjacent (see walkdown checklist for 4.16kV SWGR).

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Doors on out-of-service equipment are unlatched. Per Operations, this was due to a regular activity, therefore no seismic issue.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW15 - RAB 43' SOUTHWEST B SWGR ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Heavy cable tray and HVAC overhead are ruggedly supported.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>Per PSL, the electrical bus and transformer were purchased together as a unit. Drawings show them mounted together. Since they are purchased from the vendor for the as-found configuration, it follows that the transformer and bus are qualified for the as-found configuration. No unanalyzed condition.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?
<i>Threaded fire piping is rigidly supported at frequent intervals. No seismic concerns.</i> | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW15 - RAB 43' SOUTHWEST B SWGR ROOM

General housekeeping issues associated with outage work. Equipment in area is out of service during outage, therefore no adverse seismic conditions exist. PSL to verify that the area conforms to housekeeping procedures prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes
480V MCC 2B-9 bolt on NW panel appears improperly fastened. 480V MCC 2B-5 has various bolts improperly fastened. No seismic concerns. AR has been issued to resolve this issue.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW16 - RAB 43' REMOTE SHUTDOWN PANEL ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW16 - RAB 43' REMOTE SHUTDOWN PANEL ROOM

Noted unanchored cabinet in south-west corner of room. Cabinet conforms to the seismic housekeeping procedure. No issue.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW17 - RAB 43' NORTHWEST B SWGR ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes
Rugged overhead supports throughout.

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW17 - RAB 43' NORTHWEST B SWGR ROOM

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW18 - RAB 43' NORTHWEST A SWGR ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Heavy overhead cable trays and HVAC overhead are ruggedly supported throughout the area.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?
<i>Rod hung fire piping comes into contact with conduit above Fault Receiver cabinet. Concern that fire piping is flexible enough to damage conduit. PSL confirmed the cabinet as non-safety related, therefore no seismic concerns.</i> | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW18 - RAB 43' NORTHWEST A SWGR ROOM

General housekeeping issues and temporary scaffolding associated with outage. Equipment is out of service due to outage, therefore no adverse seismic concerns. PSL to verify that the area meets housekeeping and scaffolding procedure prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

(1) Panel PP236 doors are open and tagged as out of service. No seismic concern.

(2) Missing panel bolts on B-2021 No seismic concerns. AR was generate to resolve the issue.

(3) Door on north side of Annunciator Logic Terminal Cabinet 2 is open due to hinge damage. Equipment is out of service per PSL, therefore no adverse seismic conditions exist. AR was generated to resolve the issue.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW19 - RAB 43' DC BATT ROOM 2A

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes
Eyewash showers are behind walls and safety equipment raised on pads. No seismic concerns.

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW19 - RAB 43' DC BATT ROOM 2A

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW20 - RAB 43' EAST A SWGR ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Heavy cable trays and HVAC overhead are well supported.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>(1) PSB-1 Relay Cabinet 2A has negligible (~1/32") gap to masonry wall to N. Verify whether condition is analyzed or acceptable. AR was generated with PSL Systems analysis for why condition is acceptable.</i>

<i>(2) Noted transformer PP201A has an approx 1/16" gap to concrete starter wall. Given squat transformer shape with motion along strong axis, a lower bound frequency of 10 Hz is reasonable. Per STD-C-004, the spectral acceleration at El. 42.5 of the RAB (M.P. 3) at 4% damping is 0.35g. An upper bound estimate for displacement with a modal shape factor of 1.6 for cantilever action is then... $1.6 * 0.35g * 386.4 \text{ in}/(s^2 * g) / (2 * \pi * 10 \text{ Hz})^2 = 0.055"$. Therefore the 1/16" gap is adequate.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW20 - RAB 43' EAST A SWGR ROOM

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes
Various bolts missing on panels on back of 4.16KV switchgear 2A-3. No seismic concerns. AR was generated to resolve the issue.
-

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW21 - TRSL 19.5' SOUTH ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW21 - TRSL 19.5' SOUTH ROOM

Scaffolding mounted off safety related equipment. Per PSL, equipment in room is out of service due to outage. Therefore no adverse seismic conditions exist. PSL to verify that scaffolding in the area adheres to procedure prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW22 - TRSL 19.5' NORTH ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

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|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions?
<i>Small tubing support and angle showing possible strength loss due to corrosion, at approx 9' south of the west end of AFW Pump C. Tubing judged to be adequate even if support fails due to flexibility and low mass. PSL was notified.</i> | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW22 - TRSL 19.5' NORTH ROOM

Scaffolding is kicked off safety related equipment. All equipment out of service due to outage, so no adverse seismic conditions exist due to temporary work. PSL to verify housekeeping and scaffolding procedure adherence prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW23 - TRSL 36' SOUTHWEST OUTSIDE NEAR MSIV ACCUM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW23 - TRSL 36' SOUTHWEST OUTSIDE NEAR MSIV ACCUM

Transient materials and ladder supports due to outage. No adverse seismic concerns. PSL to verify that area conforms to housekeeping procedure prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW24 - TRSL 36' NORTH ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW24 - TRSL 36' NORTH ROOM

Temporary transient materials and scaffolding in the area to be removed or verified in accordance with procedure prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW25 - TRSL 36' SOUTH ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW25 - TRSL 36' SOUTH ROOM

*Noted temporary scaffolding due to outage. No adverse seismic conditions.
PSL to verify procedural adherence prior to placing equipment in service.*

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes
Surface corrosion due to harsh environment on flange bolts/nuts throughout area. No evidence of strength loss.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW26 - INTK 37' INTAKE STRUCTURE ROOF

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | |
|--|-----|
| 1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW26 - INTK 37' INTAKE STRUCTURE ROOF

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW27 - INTK 11' MECH VALVE PIT

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings.

Additional space is provided at the end of this checklist for documenting other comments.

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- | | |
|--|-----|
| 1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW27 - INTK 11' MECH VALVE PIT

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW28' - INTK 21' ICW PUMP ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions?
<i>Unistrut wall-mounted support for conduit box north-east of ICW Pump 2C on east wall is severely corroded. The support is likely ineffective, but the box does not have a label and does not appear to be safety-related. Similar concern for box on west wall near ICW Pump 2A. The push button boxes were confirmed as abandoned per PCM 194-295 (95194). Therefore no seismic issue exists.</i> | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions | Yes |

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW28 - INTK 21' ICW PUMP ROOM

associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?

Scaffold in area has adequate clearance, bracing, and is well supported.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

(1) Conduit near west side of ICW Pump 2C is missing cover plate. Per PSL, pumps are not required for tech spec due to outage. PSL to verify that condition is resolved prior to tech spec requirements initiative.

(2) Missing bolt on flange cover north of ICW Pump 2C on discharge side. No seismic concern. PSL was notified.

(3) General corrosion throughout area due to harsh environment, but no indication of strength loss other than those items noted under Question 2.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW29 - CCW 26' AREA

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Hoist beams are well supported.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>Unsecured hoist chains are approximately 1' from panel RA-LL-1. The chains are unlikely to close the gap given their low mass. No seismic concern exists, but it is recommended that the chains be secured in the designated location.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW29 - CCW 26' AREA

Well anchored and braced scaffold through the area.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes
B2H23 missing 5 out of 6 cover panel bolts. No seismic concerns. PSL was notified.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:

Seth W. Baker

Date: 11/16/12

Hunter A. Young

11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW30 - FHB 20' FUEL POOL HX 2A ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW30 - FHB 20' FUEL POOL HX 2A ROOM

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW31 - FHB 20' FUEL POOL PUMP ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?
<i>Overhead hoist is well supported.</i> | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>Hoist chains improperly tied off so that chain rests against j-box B2V15. Chatter against box will not damage it. Therefore, no adverse seismic condition exists. However, it is recommended that the chain be stored in a proper manner.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW31 - FHB 20' FUEL POOL PUMP ROOM

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW32 - RAB 43' 4A PLENUM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW32 - RAB 43' 4A PLENUM

Temporary scaffolding is anchored to out of service equipment. No seismic concerns exist. PSL to resolve prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW33 - RAB 43' HVAC EQUIPMENT ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings.

Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW33 - RAB 43' HVAC EQUIPMENT ROOM

Temporary scaffolding and transient items in the area. Equipment is out of service due to outage, therefore no seismic concerns. PSL to verify that the area adheres to housekeeping and scaffold procedures prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes
Flexible connections and piping noted across CNTMT/RAB building gap. No seismic concern.

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	Seth W. Baker	Date:	11/16/12
	Hunter A. Young		11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW34 - FHB 48' FUEL POOL COOLING ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW34 - FHB 48' FUEL POOL COOLING ROOM

*Low mass signs that indicate guarded equipment are placed near MCC 2A-8.
Signs pose no hazard.*

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes
*480V MCC 2B-8 and 2A-8 have modified openings to allow jumper cables.
Per Operations, this is not in violation of tech specs and therefore not an adverse seismic condition. PSL to verify MCCs and panels are brought to design configuration prior placing in service.*

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW35 - RAB 43' DC BATT ROOM 2B

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?
<i>Eyewash shower is located behind concrete wall. No hazard.</i> | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW35 - RAB 43' DC BATT ROOM 2B

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW36 - RAB 19.5' BAMT ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|--|-----|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Yes |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?
<i>Rigid conduit on east side of room with small gaps to BAMT 2A and other conduit. Conduit runs are flexible as to preclude damage from impact. No adverse seismic concerns.</i> | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW36 - RAB 19.5' BAMT ROOM

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by:	<u>Seth W. Baker</u>	Date:	<u>11/16/12</u>
	<u>Hunter A. Young</u>		<u>11/16/12</u>

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW37 - RAB -7' HPSI 2A ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes
Overhead hoist is well supported.

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW37 - RAB -7' HPSI 2A ROOM

General housekeeping and temporary scaffolding issues due to outage. All equipment in the area confirmed as out-of-service per Operations. No seismic concerns. PSL to verify procedure adherence prior to placing equipment in service.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)Location (Bldg, Elev, Room/Area): AW38 - RAB 62' CTRL ROOM AC ROOM

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Yes

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Yes
Heavy ductwork is rigidly supported. No hazard.

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Yes

 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Yes
-

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW38 - RAB 62' CTRL ROOM AC ROOM

*Temporary scaffolding and transient items stored in area due to outage.
Equipment in the area confirmed as out-of-service during outage per
Operations, therefore no seismic concerns. PSL to verify procedure adherence
prior to placing equipment in service.*

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12

Hunter A. Young 11/16/12

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW39 - YD 19' RWT

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

- | | | |
|----|---|----------------|
| 1. | Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | Yes |
| 2. | Does anchorage of equipment in the area appear to be free of significant degraded conditions?
<i>Surface corrosion noted throughout area due to exposed environment. No potential adverse seismic concerns.</i> | Yes |
| 3. | Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Not Applicable |
| 4. | Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Yes |
| 5. | Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Yes |
| 6. | Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Yes |
| 7. | Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Yes |

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AW39 - YD 19' RWT

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Seth W. Baker Date: 11/16/12
Hunter A. Young 11/16/12

E

Plan for Future Seismic Walkdowns of Inaccessible Equipment

This appendix identifies equipment that was inaccessible for inspection during the walkdown. Table E-1 is intended to identify equipment located within containment that could not be accessed during an at-power walkdown. Since Unit 2 was in outage during the time of the walkdown, all equipment located inside containment was inspected. Table E-2 identifies electrical cabinets that could not be opened due to electrical safety and plant operation hazard. The plans for inspection of inaccessible equipment are to inspect the items during the first available equipment outage prior to or during the next refueling outage, when they can be safely accessed. The next scheduled refueling outage is Spring 2014. A plant Corrective Action has been issued to plan for and implement additional cabinet internal inspections.

Table E-1: Completely Inaccessible Equipment

Component ID	Description	Reason for Inaccessibility
N/A	N/A	N/A

Table E-2: Cabinets with Inaccessible Internals

Component ID	Description	Reason for Inaccessibility
480V MCC 2B7	480V MCC FOR DIESEL GEN BLDG MISC POWER SUPPLIES	Cabinet was energized during inspection and posed electrical safety and plant operation hazard. Operations requested deferral to next equipment outage.
480PZ BUS2A3	480V PRZR BUS 2A3	Cabinet was energized during inspection and posed electrical safety and plant operation hazard. Operations requested deferral to next equipment outage.
480V SWGR 2B2	480V SWGR 2B2	Cabinet was energized during inspection and posed electrical safety and plant operation hazard. Operations requested deferral to next equipment outage.
480V SWGR 2AB	480V SWITCHGEAR 2AB	Cabinet was energized during inspection and posed electrical safety and plant operation hazard. Operations requested deferral to next equipment outage..

**Peer Review Report for the
Seismic Walkdown Inspection of St. Lucie Plant Unit 2
(NRC Near Term Task Force Recommendation 2.3)**

St. Lucie Plant (PSL)

Revision 0

November 2012

1. Introduction

This report documents the peer review of the seismic walkdowns performed for St. Lucie Plant, Unit 2, in support of the NRC Near Term Task Force (NTTF) Recommendation 2.3. This document describes the peer review team and process (Section 3), the peer review of the SWEL selection (Section 4), and the peer review of the seismic walkdown (Section 5).

The peer review was performed consistent with Section 6 of the EPRI-TR-1025286 ^(REF 1) guidance document and addresses the following specific activities:

- Review of the selection of components for the Seismic Walkdown Equipment List (Section 4)
- Review of a sample of the checklists prepared for the Seismic Walkdowns & Walk-Bys (Section 5.1)
- Review of any licensing basis evaluations (Section 5.2)
- Review of the decisions for entering the potentially adverse conditions in to the plant's Corrective Action Program (Section 5.2)
- Review of the final submittal report (Section 6).

2. Background

This peer review covers three portions of the seismic walkdown: (a) the preparation of the SWEL, (b) the actual walkdown, and (c) the final submittal report.

The Seismic Walkdown Equipment List (SWEL) was prepared in August and finalized in October, based on revisions that occurred during the walkdowns. Section 3 describes the process of peer reviewing the SWEL.

The vast majority of the seismic walkdowns occurred on September 24, 25, 26, 27, & 28. One member of the peer review team was present for all of the seismic walkdowns. This portion of the peer review is documented in Section 4.

Four (4) components could not be examined entirely with the bus powered:

1. 480V Motor Control Center 2B7
2. 480V Pressurizer Bus 2A3
3. 480V Switchgear 2B2
4. 480V Switchgear 2AB

Consequently, the walkdown for these components was postponed to the next scheduled outage when the electrical equipment is scheduled to be removed from service for maintenance. These inspection deferrals are being tracked by as part of the Corrective Action Program.

3. Peer Review Team & Process

The PSL Peer Review Team consisted of individuals from PSL Operations, Engineering, and Reliability Risk Assessment (PRA). These individuals participated in phases of preparation, performance and peer review of the seismic walkdowns. This section documents the peer review process and how the Peer Review Team interacted with the Seismic Walkdown Engineering Teams.

3.1 Walkdown/Peer Review Team

The affiliation, role, and qualifications for each Team member are summarized in the following table.

Name	Group	Role *	Qualifications **
Mike Bladek	PSL Operations	PR – Team Lead PR – SWEL PR – SWE	(e), (f)
Dan West	PSL System Engineering	PR - SWEL PR – SWE	(c), (e)
Andy Terezakis	PSL Operations	PR - SWEL	(e), (f)
Ed Hollowell	PSL Structural Engineering	PR - SWEL PR – SWE	(a), (b), (c)
George Tullidge	PSL PRA Group	SWEL	(d)
Alexander Restrepo	PSL PRA Group	PR- SWEL	(d)
Hunter Young	Stevenson & Assoc. (consultant eng.)	SWE	(a) (b)
Seth Baker	Stevenson & Assoc. (consultant eng.)	SWE	(a) (b)
Sharam Ramani	PSL Structural Engineering	PR-SWEL PR- SWE	(b), (c)

Notes:

* Role: PR (peer review), SWEL (seismic walkdown equipment list), SWE (seismic walkdown engineer)

** Qualifications:

- (a) Completed EPRI NTF 2.3 Seismic Walkdown Training
- (b) Seismic engineering experience
- (c) Degree in mechanical engineering or civil/structural engineering
- (d) Seismic Reliability Risk Assessment (PRA) / IPEEE experience
- (e) Knowledge of plant operations, documentation
- (f) Plant Operations member

3.2 Peer Review Process

PR Team Lead

Mike Bladek served as the Peer Review Team Lead. In that role, he was responsible for coordinating the peer review and assembling this report. As described below, he also performed some additional roles as part of the peer review of the SWEL and seismic walkdown team.

SWEL Preparation

The SWEL was prepared by George Tullidge, who is the St. Lucie Reliability Risk Assessment (PRA) engineer, with experience and familiarity with the St. Lucie IPEEE Report and St. Lucie Seismic PRA.

A technical peer review of the SWEL was performed by a team that included a PRA engineer (A. Restrepo), design structural engineer (S. Ramani), and Operations representative (A. Terezakis). All of these individuals are familiar with the design and layout of the plant and plant documentation.

- SWEL Prepared By – G. Tullidge
- SWEL Reviewed By– A. Restrepo, S. Ramani, A. Terezakis

A Peer review of the process used to prepare the SWEL was performed by M. Bladek, D. West and E. Hollowell.

Seismic Walkdown

The primary seismic walkdown was conducted with one team of two qualified structural/seismic engineers (SWE's) from Stevenson and Associates. The peer review of the walkdowns was performed by representatives from St. Lucie Plant Operations (M. Bladek), and Engineering (E. Hollowell, D. West, S. Ramani). Operations and Engineering representatives also participated on the walkdowns for logistical support as well as peer review. The ultimate judgments regarding licensing basis were made by qualified St. Lucie Plant structural engineers (E. Hollowell, S. Ramani).

- Seismic Walkdown Engineers (SWE):
 - Hunter Young (team lead)
 - Seth Baker
- Peer Review of SWE – M. Bladek, E. Hollowell, D. West, S. Ramani
- Licensing Basis Reviewers – E. Hollowell, S. Ramani,
- IPEEE Reviewers – E. Hollowell, D. West, G. Tullidge

Final Report

The final seismic walkdown report was prepared by the Stevenson & Assoc. consultants, with review by St. Lucie Plant representatives from Operations, Engineering, and PRA.

- Preparers –Seth Baker, Hunter Young
- Reviewers – M. Bladek, D. West, E. Hollowell

4. Peer Review - Selection of Components for SWEL

The purpose of this section is to describe the process to perform the peer review of the selected components that were included in the Seismic Walkdown Equipment List (SWEL). This peer review was based on review of the SWEL Selection Report ^(REF 2).

The guidance in Section 3: *Selection of SSCs* of the EPRI Technical Report ^(REF 1) was used as the basis for this review. Specifically, this peer review utilized the checklist in Appendix F: *Checklist for Peer Review of SSC Selection of the EPRI Technical Report* in Reference 1. Attachment 1 of this peer review report documents the completed checklist.

This peer review determined that the SSCs selected for the SWEL 1 seismic walkdowns represent a diverse sample of equipment required to perform the five safety functions and to meet the sample selection attributes, including:

- Various types of systems
- Major new and replacement equipment
- Various types of equipment
- Various environments
- Equipment enhanced based on the findings of the IPEEE
- Risk insight consideration

For SWEL 2 development, the peer review determined that spent fuel related items were adequately considered and were appropriately included or excluded.

This peer review resulted in no additional findings. All peer review comments requiring resolution were incorporated prior to completion of the SWEL Selection Report.

This peer review concludes that the process for selecting SSCs to be included on the seismic walkdown equipment list appropriately followed the process outlined in Reference 1. It is further concluded that the SWEL sufficiently represents a broad population of plant Seismic Category 1 equipment and systems to meet the objectives of the NRC 50.54(f) Letter.

5. Peer Review – Seismic Walkdown

The peer review of the seismic walkdown was performed by PR Team members on each day of the Seismic walkdowns. The Seismic Walkdown Engineers (SWE) were accompanied by at least one peer team member during the walkdown. Additional peer review occurred following the walkdowns as documented in this report.

5.1 Review of Sample Checklists & Area Walk-bys

The peer review meetings were performed on the following morning for the walkdowns that were performed the previous day. The SWE presented samples from their Seismic Walkdown Checklist (SWC) and Area Walk-by Checklist (AWC) that they had completed that morning. This peer review meeting following the previous day's walkdown activities allowed for immediate feedback between walkdown and peer team as well as common agreement on how some issues would be addressed.

Table 5-1 lists the sample of 25 components from the Seismic Walkdown Checklist (SWC) that were discussed in the peer review meetings. These samples represent about 25% of the total SWEL population of 100 components. The sample includes a variety of types of components (heat exchanger, valve, pump, tank, instrument rack, transformer, fan, MCC, compressor, power panel, and control panel) and component locations (Reactor Aux Bldg, Steam Trestle, Refueling Water Tank, DG Bldg, and Essential Switchgear room).

Table 5-2 lists the sample of 10 areas from the Area Walk-by Checklist (AWC) that were discussed in the peer review. These samples represent about 25% of the total AWC population. These areas included Reactor Aux Building, Steam Trestle, Yard Areas, Fuel Handling Building, and Diesel Generator Building.

These tables document observations from the walkdown teams that formed the basis for the peer review. The following topics were addressed:

- **Seismic housekeeping** – Seismic housekeeping was assessed in each area. This was difficult due to the plant being shut down for a planned refueling outage with many systems out of service and dismantled for maintenance. Numerous areas had scaffolding and/or carts required for maintenance were installed without the required seismic separation, or bracing. This was not considered seismically adverse in the current plant condition. Plant start-up procedures require walkdowns by system engineers and operations prior to returning systems to service. In areas where equipment was in-service, work carts were tied off or separated from equipment in designated areas.

The presence of stanchions and signs to identify protected train equipment was also noted. In most cases it was agreed that these do not represent significant seismic risk due to the weight distribution (heavy base) and the light-weight nature of these stanchions. At one location the sign was identified as being significant enough to be seismically adverse and was removed immediately by the Operations team member.

A number of panels were identified with missing and or loose bolting or latches. In most cases these were not considered to be seismically adverse. A few of them were conservatively identified as mode holds to be restored prior to returning a piece of equipment to service.

- **Concrete cracks/Anchor corrosion** – Minor concrete cracks were observed in the concrete floors or grout pads where components were anchored. The location, cause of the cracking, and potential impact on the seismic capacity was reviewed. No conditions were identified that adversely impacted the seismic capacity. Corrosion of anchors or welds was identified on a couple of items. Due to the available design margin the identified corrosion was not considered to adversely impact the design basis of the component. These issues were entered into the corrective action to remove the existing corrosion, perform detailed inspection and repair to restore design margin as required.
- **Physical interaction** – Several of the samples were examples of close spacing between the SWEL component and a hard object (such as a concrete/block walls), with the potential for interaction. In most cases, the spacing was judged adequate. In one case a printer table, part of a control room upgrade was adjacent to the Reactor Protection System cabinet and the printer cabinet table top was required to be reworked to provide a clearance.
- **Non-safety piping in SR buildings** – NS piping in all walk-by areas was observed to be well supported, or was not located such that it could potentially adversely impact safety related systems, structures or components.

No significant issues were identified from the peer review team discussions.

5.2 Review of Licensing Basis Evaluations & Corrective Action Process

The final report provides a list of the anomalies encountered during the St. Lucie seismic walkdown inspections and how they were addressed. The review of those anomalies demonstrates a thorough and reasonable process for the review of open issues. There were no comments offered by the peer review team.

6. Review Final Submittal Report & Sign-off

The final submittal report has been reviewed by St. Lucie representatives from Engineering, Operations, and the PRA Group, and found to meet the requirements of the EPRI 1025286 – Seismic Walkdown Guidance ^(REF. 1).

7. References

1 EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, June 2012.

2. St. Lucie Plant Report, *Selection of the St. Lucie Plant Unit 2 Seismic Walkdown Equipment List (SWEL) for the Requirement 2.3 Walkdown, Rev 0*, November 2012.

Table 5-1: Table of Sample Components from Seismic Walkdown Checklist (SWC)

Walkdown Team (PR Team)	Equipment Identification	Walkdown Team Observations
Bladek	RWT	The anchor bolts were corroded with some loss of base metal. Coatings were failing and flaking rust was visible. Anchor bolts need to be cleaned to accurately assess loss of cross section.
Bladek/Hollowell	4.16 KV SWG 2B3	All the cubicles were opened for inspection, A fuse holder in one of the cubicles was identified because it did not have a nut installed (most fuse holders had a nut securing the bolt. The fuse holder looked tight against the mounting plate, and was not dislocated. Because we could not cross the plane of the open cubicle, a WR was written to verify that the screw supporting the fuse holder was tight. The fuse is seismically insensitive and not considered seismically adverse.
Bladek/Hollowell	STA SVC XFMR 2A-2	The transformer is bolted to the adjacent 480V Switchgear. The walkdown team questioned whether this was an acceptable configuration. This is a common configuration that was identified on a number of other SWEL items. Based on review of drawings the components were supplied together from the vendor and mounting drawings show them being mounted together. Being bolted together will prevent out of phase seismic interaction. PSL was requested to provide documentation to SWE.
West/Hollowell	SS-21-1B	The control panel was a newer installation. Was supported by Unistrut welded to TS4x4 . Configuration was sketched in the field. PSL was requested to provide mounting configuration documentation to SWE.
Bladek	4.16 KV SWGR 2AB	The walkdown of the switchgear did not identify any mounting deficiencies but signs identified close enough to equipment that if they could fall they could impact equipment. The Operations walkdown team member relocated the signs a safe distance away from the equipment.
Bladek/Hollowell	125V DC BUS 2B	A 5/8" gap was identified between the back of the equipment and an adjacent concrete wall. This was later reviewed by the SWE and determined to be adequate. A inspection of the cubicles identified 3 missing panel bolts in the middle panel, which was not considered to be a seismic concern. AR was issued to have the bolts installed.
Bladek/Hollowell	DG 2B CNTL PNL	The panel was accessible and no adverse seismic concerns were identified.
Bladek/Hollowell	PP-212 Transformer	A 1/16" gap was noted from the back of the transformer to the wall. This was later evaluated by the SWE to be acceptable. The transformer was bolted to the rigid wall mounted structure. No adverse conditions identified.
Bladek/Hollowell	HVE-6A Plenum	The plenum was anchored with a combination of anchors and welded embed connections. No discrepancies with plenum anchorage identified. A temperature indicator mounted on the

Walkdown Team (PR Team)	Equipment Identification	Walkdown Team Observations
		side of the plenum was identified as having a loose nut, but was not considered to be seismically adverse. AR was issued to have the bolt tightened.
West/Hollowell	ICW PP 2C	The pump is bolted to sole plate which is in turn bolted with cast in place anchors to a concrete pedestal. No seismically adverse conditions identified with pump mounting. A screen cover of the pump packing area was identified as missing a bolt and the latch was not properly fastened. The screen cover had six bolts support in the cover and installation of the missing bolt would distort the screen, and the condition was not considered seismically adverse. Operations representative secured the cover latch.
Bladek/Hollowell	HVE-6B	The motor skid was welded to tube steel frame that was welded to floor embeds. No deficiencies identified. The shaft cover was missing a bolt. This was not considered to be seismically adverse. AR was issued to have the missing bolt installed.
Bladek/Hollowell	DG 2B S/U AIR TK 2B1	The tank is bolted to a skid that is in turn anchored to a concrete pad. No seismic adverse conditions identified. An approx. 3/16" gap was identified at the connection between the support angle attached to the tank and the top flange of the W-section skid frame. This was considered not to be seismically adverse. This condition was not considered to have any other unintended consequences by PSL engineering.
Bladek/Hollowell	DG DO DAYTK 2B1	The tank was bolted to the DG skid. A 1/8" gap was noted at the connection between the tank and DG skid. The bolting was tight. The condition was considered not to be seismically adverse. This condition was not considered to have any other unintended consequences by PSL engineering.
West/Hollowell	HVE-41A	The fan is in the ceiling of the Intake structure. The missile shield on the roof of the intake structure protecting the fan was identified as missing a bolt. This condition did not create a adverse seismic condition. The missing bolt was reviewed by PSL engineering and did not adversely impact the missile protection. An AR was issued to repair the missing bolt.
Hollowell	FUEL POOL HX 2A	The heat exchanger was anchored to a concrete pedestal. No seismic adverse conditions were identified.
Hollowell	FT-14-2	The transmitter was bolted to a bracket which intern was bolted to a instrument rack. No seismic adverse conditions identified.
Bladek/Hollowell	120V INSTR BUS 2MC	This is a wall mounted box. One of the six latches was missing. This condition was not considered seismically adverse. An AR was issued to repair the missing latch.
Bladek/Hollowell	CNTMT SPR PP 2B	No adverse seismic conditions identified with the 2B containment spray pump.
Bladek Hollowell	480V MCC 2B2	No issues with the anchorage were identified. A 1" gap was identified between the back of the cabinet and the adjacent wall.

Walkdown Team (PR Team)	Equipment Identification	Walkdown Team Observations
		This was reviewed by the SWE and determined sufficient clearance to prevent interaction between the wall and the cabinet.
Hollowell	SDC HX 2A	The heat exchanger was anchored to concrete pedestals. No degradations were identified and no adverse seismic conditions identified.
Bladek/Hollowell	125V BATT 2A	The SWE questions that there were no foam spacers between the batteries, to prevent interaction between the batteries. An existing evaluation was later provided by PSL that demonstrated that the condition was acceptable. No adverse seismic conditions identified.
Bladek/Hollowell	HVS-4A	Surface corrosion was identified on areas of skid supporting the fan. Scaffolding was installed in the area. The corrosion was considered to be surface corrosion. System is currently out of service and, system walkdowns will verify that scaffolding is removed or in accordance with procedures prior to returning fan to service. No adverse seismic conditions identified.
Bladek/Hollowell	RTGB-206	Most of the anchorage was obscured due to the raised floor and carpeting surrounding the equipment. No adverse seismic conditions identified.
Bladek/Hollowell	HVS-1D	The cooler skid was welded to embeds in the concrete floor. Some minor surface corrosion was identified but not adverse seismic conditions identified.
Bladek/Hollowell	SIT 2A1	The tank was surveyed and bolt size verified. No adverse seismic conditions identified.
Hollowell	AFW PP 2C	The anchors for the pump are cast in place anchors, there was some minor cracking in the grout cap below the skid, but the cracks did not affect the capacity of the anchors or support of the pump.

Table 5-2: Table of Sample Areas from Area Walk-by Checklist (AWC)

Walkdown Team (PR Team)	Area Walkdown Room (SWEL #)	Walkdown Team Observations
Hollowell	AW3	DG 2B room. No issues identified
Bladek/Hollowell	AW13	RAB EL 62' Control Room. Printer table <1/32" against end of Reactor Protection System Cabinet. AR issued to evaluate/move printer cabinet. Seismic adequacy of ceiling tiles questioned, later found acceptable documentation from IPEEE.
Bladek/Hollowell	AW15	RAB EL 43' SW Side of Switchgear Room. 480V MCC 2B-5 identified loose bolts on panel covers, but enough remaining capacity that it was not a seismic concern. Issue of 480V load center bolted to transformer. PSL provided documentation. SWE to verify.
Bladek/Hollowell	AW20	RAB EL 43' E side of Switchgear Room. PSB-1 Relay cabinet negligible gap between cabinet and concrete block wall. AR written to document/evaluate- found to be acceptable. Missing bolts on panels on back of 4KV Swgr 2A-3, not a seismic concern.
West/Hollowell	AW22	Main Steam Trestle EL 19.5' Small tubing support overhead of AFW pp 2C identified as corroded and loss of strength. Not a seismic concern. Identified as in progress repair by PSL.
Bladek/Hollowell	AW18	RAB EL 43' NW side of Switchgear Room. North side door of Annunciator Logic Terminal Cabinet was open due to hinge damage. AR written to repair. PSL walked down and verified that door is currently in closed secure configuration. Missing panel bolt on electrical box B-2021. Not a adverse seismic concern.
West/Hollowell	AW29	CCW EL 26' South side of bldg. Hoist chains unsupported near reflash panel RA-CC-1. Sufficient clearance to preclude impact. SWE recommended provided better more secure location. Panel B2H23 missing number of cover bolts, but not considered an adverse seismic concern.
Bladek/Hollowell	AW30	FHB 20' Fuel Pool HX 2A room. No adverse seismic conditions identified.
Bladek/Hollowell	AW35	RAB 43' DC Battery Rm 2B. No adverse seismic conditions identified.
Bladek/Hollowell	AW38	RAB 62' Control Rm AC Room General housekeeping associated with in-progress outage associated with scaffolding and general cleanliness. Start-up walkdowns to ensure scaffolding and area cleaned prior to return to service.

Attachment 1: Peer Review Checklist

Peer Review Checklist for SWEL

Instructions for Completing Checklist

This peer review checklist may be used to document the review of the Seismic Walkdown Equipment List (SWEL) in accordance with Section 6: Peer Review. The space below each question in this checklist should be used to describe any findings identified during the peer review process and how the SWEL may have changed to address those findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Were the five safety functions adequately represented in the SWEL 1 selection? Y N

Requirement met.

Remarks: The equipment on the SWEL was well distributed over the five safety functions.

2. Does SWEL 1 include an appropriate representation of items having the following sample selection attributes:

- a. Various types of systems? Y N

Requirement met.

Remarks: Over 20 different systems are represented on the list.

- b. Major new and replacement equipment? Y N

Requirement met.

Remarks: Various transmitters, tanks, transformers, and valves that have been replaced within the last 15 years are part of the Equipment List.

- c. Various types of equipment? Y N

Requirement met.

Remarks: Approximately 20 different classes of equipment are represented on the list.

- d. Various environments? Y N

Requirement met.

Remarks: Equipment from all the major safety related buildings, and environments. Equipment from outside areas such as steam trestle area, and refueling water tank, dry areas such as RAB switchgear rooms, hot and harsh areas such as RAB basement, ECCS Rooms and Containment were part of the SWEL.

Peer Review Checklist for SWEL

- e. Equipment enhanced based on the findings of the IPEEE (or equivalent) program? Y N

Requirement met.

Remarks: Based on discussion with Operations and Engineering, major new or replacement equipment was identified and noted as such in the SWEL spreadsheet.

- f. Were risk insights considered in the development of SWEL 1? Y N

Requirement met.

Remarks:

3. For SWEL 2:

- a. Were spent fuel pool related items considered, and if applicable included in SWEL 2? Y N

Requirement met.

Remarks: Fuel pool cooling and purification items are included on the list.

- b. Was an appropriate justification documented for spent fuel pool related items not included in SWEL 2? Y N

Requirement met.

Remarks: Components were included in this screening based on their importance in maintaining spent fuel pool inventory and cooling.

-
4. Provide any other comments related to the peer review of the SWELs.

-
5. Have all peer review comments been adequately addressed in the final SWEL? Y N
-