

Enclosure to SBK-L-12242

Seabrook Station Seismic Walkdown Report

SEISMIC WALKDOWN REPORT

IN RESPONSE TO THE 50.54(f) INFORMATION REQUEST
REGARDING
FUKUSHIMA NEAR-TERM TASK FORCE RECOMMENDATION 2.3:
SEISMIC
for the
SEABROOK STATION UNIT 1
NRC Docket No. 50-443

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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 Seabrook Station Unit 1 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) Seabrook 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 safe shutdown earthquake for the Seabrook Station site is 0.25g horizontal ground acceleration and 0.17g vertical ground 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).

Selection of SSCs

One hundred and two (102) components were selected for the walkdown effort, including spent fuel pool items. These components were selected as described 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 Seabrook Station Unit 1 were performed August 29-31, 2012 with additional walkdowns on September 14, 2012 to inspect selected electrical equipment and September 20, 2012 to inspect equipment in Containment. The majority of the walkdown activities were conducted by two 2-person Seismic Walkdown teams.

The seismic walkdown teams inspected 99 of the 102 components on the SWEL (comprised of SWEL 1 and SWEL 2). Walkdowns for 3 components were deferred due to accessibility issues resulting from energized equipment. These 3 remaining 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 30 components. (Ref. 1) A total of 39 anchorage configurations were confirmed to be installed in accordance with the station documentation.

During the seismic walkdowns three (3) Condition Reports (CRs) were issued for conditions such as corrosion on structural supports. After evaluation through the corrective action process, it was determined that none of the conditions identified in the CRs were adverse seismic conditions.

Seismic Licensing Basis Evaluations

Conditions identified during the walkdowns were documented on the SWCs, AWCs, and entered into the CAP. For those conditions that required seismic licensing basis evaluations were completed and documented within the CR. Tables 5-2 and 5-3 in the report provide the CR, a summary of the condition, 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 two teams made up of Operations and PRA representatives and structural/seismic engineers. The structural/seismic engineers made up the SWE teams, but also served to peer review each other's work. The Operations and PRA representatives also participated in some of the walkdowns for logistical support as well as peer review. 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 Seabrook Station 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 in no adverse anchorage conditions, no adverse seismic spatial interactions, and no other adverse seismic conditions associated with the items on the SWEL. Similarly, the Area Walk-By 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 of long term structural integrity of supports as noted in Tables 5.2 and 5.3. The Seismic Walkdowns identified no degraded, nonconforming, or unanalyzed conditions that required either immediate or follow-on action(s). 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 3 items. These inspections are deferred because the cabinets were inaccessible due to the potential electrical hazard from energized buswork.

1

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 (Reference 1), was endorsed by the NRC on May 31, 2012. NextEra Energy Seabrook has committed to using this NRC-endorsed guidance as the basis for completing the walkdown effort.

1.2 PLANT OVERVIEW

Seabrook Station (SBK) consists of a pressurized water reactor (PWR) generating unit located in Seabrook, New Hampshire. Seabrook has a containment building of concrete construction with a carbon steel liner. The unit is rated at 3648 MWth power, and was originally designed and constructed with joint participation by Westinghouse Electric Corporation, United Engineers & Constructors, and Public Service Company of New Hampshire. Seabrook began commercial operation in August 1990 (Seabrook Power Station Updated Final Safety Analysis Report (Reference 2), Section 1.1).

1.3 APPROACH

The EPRI Seismic Walkdown Guidance (Reference 1) was used for the Seabrook 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
- 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 Seabrook Station is defined in the UFSAR (Ref. 2) Section 3.7(B). Site design ground motion response spectra for the Safe Shutdown Earthquake (SSE) are provided in UFSAR Figures 3.7(B)-1, 3.7(B)-2 and 3.7(B)-3 and adhere to Regulatory Guide 1.60, *Design Response Spectra for Seismic Design of Nuclear Power Plants* (Reference 11). Damping values for SC-1 equipment are listed in UFSAR Table 3.7(B)-1 and conform to Regulatory Guide 1.61, *Damping Values for Seismic Design of Nuclear Power Plants* (Reference 12).

As defined in UFSAR Section 2.5, the SSE is based on the postulated occurrence of a magnitude VIII(MM) earthquake located at the site. The horizontal peak acceleration associated with the maximum earthquake potential intensity VIII(MM) according to the intensity-acceleration relationship established by Trifunac and Brady (1975) is 0.25g (mean plus one sigma). Assuming that the vertical peak acceleration is two-thirds of the horizontal acceleration (Newmark and Hall, 1977), 0.167g is selected accordingly.

SC-1 equipment is classified according to Regulatory Guide 1.29, *Seismic Design Classification* (Ref. 13), and is discussed in UFSAR Section 3.2.1, which states:

“Category I structures, systems, and components are those that are important to safety and designed to remain functional in the event of a safe shutdown earthquake (SSE). These structures, systems, and components are those necessary to assure:

- *The integrity of the reactor coolant pressure boundary (RCPB).*
- *The capability to shutdown the reactor and maintain it in a safe condition.*
- *The capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures.*

In addition, Seismic Category I structures, systems, and components are designed to remain functional and within applicable stress and deformation limits (elastic range of materials) when subjected to the effects of the vibratory motion of the operating basis earthquake (OBE) in combination with normal operating loads.”

Per UFSAR Section 3.10(B).1, SC-1 electrical equipment within the UE&C scope of supply was qualified per the guidelines recommended in IEEE Standard 344-1975 and Regulatory Guide 1.100, similar to current requirements for nuclear Safety Related components. Per UFSAR Section 3.10(N).1 SC-1 electrical equipment within the Westinghouse scope of supply was qualified per IEEE Standard 344-75 (Ref. 14).

Mechanical equipment was qualified per the requirements of ASME B&PV Code, Section III, Subsections NB, NC or ND, 1971, 1974 and later addenda.

For concrete structures and components, the basic code for determining the section strengths is ACI 318-71 (Ref. 15), or later.

For steel structures and components, the basic code for determining the section strengths is the AISC Steel Construction Manual, 7th Edition (Ref. 16) or later.

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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 (Reference 1). Résumés contained in Appendix A provide personnel experience and 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
Seabrook (NextEra Energy)						
T. Cassidy		X				X
K. Kiper	X				X	X ^(note 1)
R. Turcotte					X	X
S. Kenrick			X	X		X ^(note 2)
B. Bouton			X	X		X ^(note 2)
E. Antosz			X ^(note 3)			
Stevenson & Associates						
J. O'Sullivan			X	X		X ^(note 2)
W. Djordjevic			X	X		X ^(note 2)

Notes:

1. Peer Review Team Leader
2. Provided peer review of a sample of other SWE team's SWCs & AWCs.
3. E. Antosz performed the walkdown of equipment in Containment with B. Bouton.

3.3 EQUIPMENT SELECTION PERSONNEL

The SWEL development was performed by a member of the Seabrook PRA Group. The SWEL was then independently reviewed by another member of the PRA Group, plant personnel from Operations, and finally by personnel from the Structural Engineering department at Seabrook.

3.4 SEISMIC WALKDOWN ENGINEERS

The seismic walkdown teams (SWT) consisted of four seismic walkdown engineers (SWEs), two from Stevenson and Associates (S&A) and two from Seabrook Station. The SWTs were lead by senior consultants from S&A, with support from Seabrook's Structural Engineering Group. For the containment walkdown, the SWT consisted of qualified Seabrook staff members. Other Seabrook professional staff participating in some of the walkdowns included those from Seabrook Operations as well as their PRA group.

The lead SWE on each walkdown team was an engineer from Stevenson and Associates (S&A). S&A is recognized internationally as leading seismic consultants to the nuclear industry and as regular contributors 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. Over the past 35 years S&A has performed seismic evaluations of US nuclear power plants using either Seismic Probabilistic Risk Assessment (SPRA) or Seismic Margin Assessment (SMA) to address US Nuclear Regulatory Commission (NRC) requests for Individual Plant Evaluation for External Events (IPEEE).

3.5 LICENSING BASIS REVIEWERS

The Licensing Basis Reviewers for Seabrook consisted of the four seismic walkdown engineers: two from Seabrook and two from S&A. The Seabrook engineers had the lead in licensing basis determinations, with support from the S&A engineers.

3.6 IPEEE REVIEWERS

The IPEEE Reviewers for Seabrook consisted of two PRA engineers, who also participated in the SWEL preparation and seismic walkdowns.

3.7 PEER REVIEW TEAM

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

3.8 ADDITIONAL PERSONNEL

In addition to the team roles listed above, one Senior Reactor Operator (SRO), participated in the SWEL review and walkdown review as the Operations representative. The SRO from Seabrook Station who participated has numerous years of experience in various aspects of plant operations and operations training.

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 (Reference 1). The final SWEL (both SWEL 01 & SWEL 02), as well as the Master Component List, are included in the SWEL Selection Report in Appendix B.

5

Seismic Walkdowns and Area Walk-Bys

5.1 OVERVIEW

The Seabrook Seismic Walkdowns and Area Walk-Bys were conducted by two 2-person teams of trained Seismic Walkdown Engineers, in accordance with the EPRI Seismic Walkdown Guidance (Reference 1). The majority of the walkdowns occurred on August 29 - 31, 2012. An additional walkdown was performed by one 2-person team on September 14, 2012 to perform internal inspections for other adverse seismic conditions of selected electrical equipment cabinets that were not completely inspected or were not opened at all during the initial inspections. Components in the Containment building were inspected on September 20, 2012, when radiological conditions permitted during the plant's refueling outage. 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 99 of the 102 items identified on the Seabrook (SBK) SWEL. The completed SWCs 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 3 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 an 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, including any significant comments, were documented on the SWCs, 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.

5.2.2 Anchorage Configuration Confirmation

As required by the EPRI Seismic Walkdown Guidance (Reference 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 in pipelines without separate anchorage) was not evaluated for anchorage adequacy and therefore not counted in establishing the 50% sample size.

Examples of documentation that were 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	$(A - B) / 2$	
102	42	30	39

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

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 a total of two (2) actions identified and each of these was entered into the station's CAP. All of the identified concerns were assessed and it was concluded that the condition would not prevent the associated equipment from performing its safety-related function(s). None of the conditions identified by the SWEs during the equipment Seismic Walkdowns were concluded to be adverse seismic conditions.

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

Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered into CAP?	Current Status
1-CC-E-17-B PCC Heat Exchanger	Corrosion exists on supports (base plates) for both PCCW heat exchangers	This condition was evaluated and determined to be a housekeeping issue as the corrosion does not impact the structural integrity of the supports. This is not a degraded condition.	YES	CLOSED AR documents followup action to clean and re-coat supports to halt corrosion damage
1-MM-CP-108B Remote Safe Shutdown Panel	Not bolted to adjacent cabinet MCC-631 This configuration needs to be evaluated further to assure that relay tripping / chattering would not be an issue.	This configuration is judged to be sufficient for design basis earthquake, based on the Mark Technologies evaluation.	YES	CLOSED
1-EDE-US-64 480V Bus E64	Hoist located on rail on top of bus can roll and cause impacts. This configuration needs to be evaluated further to assure that relay tripping / chattering would not be an issue.	There is a shackle that restrains the hoist such that there would be no impact energy as a consequence of minimal movement and therefore no adverse seismic interaction.	N/A	CLOSED
1-EDE-X-5H 4kV to 480V Transformer X-5H (E6 to E64)	Several anchorage welds are 3.75" long as opposed to 4" lengths prescribed in plant design drawings.	The walkdown team determined that the few welds that were marginally less than the 4" required length were acceptable to assure cabinet anchorage for the design basis earthquake based upon the low seismic demand at the Cooling Tower 22' elevation.	N/A	CLOSED
1-CC-P-11-D PCCW Pump	Adjacent chain-fall inadequately secured and could strike lube oil reservoir on pump.	Chain-fall secured (tied-off) immediately	YES	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 28 AWCs were completed for SBK. 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, 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 completed 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. Fire protection piping at Seabrook is laterally braced throughout the power block and no concerns associated with fire protection piping or spray of equipment were identified. Seabrook fire protection piping follows an installation specification developed by the architect/engineering organization for the installation of fire suppression systems which in turn follows NFPA standards for the seismic design.

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 Seabrook.

5.3.1 Issue Identification during Area Walk-bys

None of the anomalies or issues identified by the SWEs during the area walk-bys was ultimately judged to be "Potentially Adverse Seismic Conditions" because in all cases it was concluded that the anomaly or issue would not prevent the equipment from performing its safety-related function. Table 5-3 at the end of this section shows only one (1) issue identified in the Area Walk-bys.

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

Equipment ID	Potentially Adverse Seismic Condition	Resolution	Entered Into CAP?	Current Status
PB412, PAB El. 25 ft	Corrosion on service water pipe support #1821-RG-8, near valve SW-V-74.	Walkdown / evaluation of pipe support determined that the functionality of support is maintained and no threat to operability exists based on the condition and structural integrity of the support. Support member is robust and the corrosion is on the surface only. This is not a degraded condition.	YES	CLOSED

6

Licensing Basis Evaluations

As noted in Sections 5.2 and 5.3, the issues identified during the Seismic Walkdowns and Area Walk-Bys were not determined to be "Potentially Adverse Seismic Conditions" because in all cases the anomaly or issue would not prevent the equipment from performing its safety-related function. Therefore, no formal Licensing Basis Evaluations were necessary and none were performed.

7

IPEEE Vulnerabilities Resolution Report

The seismic assessment performed for the Seabrook 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).

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 identified 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. Seabrook Station Updated Final Safety Analysis Report (UFSAR), Revision 13.
3. Seabrook Station letter from Ted C. Feigenbaum, North Atlantic Energy Service Corporation, to United States Nuclear Regulatory Commission, dated October 2, 1992, Subject: Transmittal of Individual Plant Examination of External Events Report for Seabrook Station, September 1992
4. Seismic Individual Plant Examination for External Events (IPEEE) SPRA, September 1992
5. NRC (E Leeds and M Johnson) Letter to All Power Reactor Licensees et al., "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendation 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," Enclosure 2.3, "Recommendation 2.3: Seismic," dated March 12, 2012.
6. Seabrook Station Administrative Procedure MA 4.8, Rev. 9, Control of Scaffolding.
7. Seabrook Station Administrative Procedure MA 4.10, Rev. 12, Control of Temporary Equipment, Temporary Power, Job Setup and Plant Storage.
8. Specification 9763-006070-1, Specification for Fixed Fire Suppression Systems, United Engineers & Constructors, Rev. 7, January 5, 1989.
9. NFPA 13, Standard for the Installation of Sprinkler Systems, National Fire Protection Association.
10. NRC SER on Seabrook IPEEE, May 2001
11. USNRC Regulatory Guide 1.60
12. USNRC Regulatory Guide 1.61
13. USNRC Regulatory Guide 1.29
14. IEEE 344-1975

15. ACI 318-71

16. AISC 7th Edition, 1971

A

Project Personnel Résumés and SWE Certificates

A.1 INTRODUCTION

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

- NextEra Energy, Seabrook Station: K. Kiper, T. Cassidy, R. Turcotte, B. Bouton, S. Kenrick, E. Antosz
- Stevenson & Associates: W. Djordjevic, J. O'Sullivan

In addition, certificates from the EPRI Walkdown Training Course are included for each of the designated SWEs: B. Bouton, S. Kenrick, E. Antosz, W. Djordjevic, and J. O'Sullivan.

A.2 RÉSUMÉS & CERTIFICATIONS

Kenneth Kiper

Mr. Kiper is a Principal Engineer in the PRA Group at NextEra Energy Seabrook. He is the lead engineer for the Seabrook PRA, which includes seismic risk integrated into the PRA model. He has more than 30 years of nuclear experience, with most of that at Seabrook Station in the PRA group, maintaining, expanding and utilizing the PRA. He participated in the preparation of the IPEEE, including the seismic PRA portion. He is involved in industry groups, including the ASME/ANS Joint Committee on Nuclear Risk Management, responsible for writing and maintaining Standards related to PRA. Mr. Kiper has master's degrees from Ohio State University in Physics and Nuclear Engineering.

T. Cassidy

Mr. Cassidy is a Project Specialist in the Operations Group at NextEra Energy Seabrook and is the Site Lead for the Fukushima Response. He has 27 years of nuclear experience at Seabrook most of which is in Operations training. Mr. Cassidy has a degree in Marine Engineering from Maine Maritime Academy and held a senior reactor operator license at Seabrook from 1987 through 2001. Since 2001 he has maintained an SRO certification.

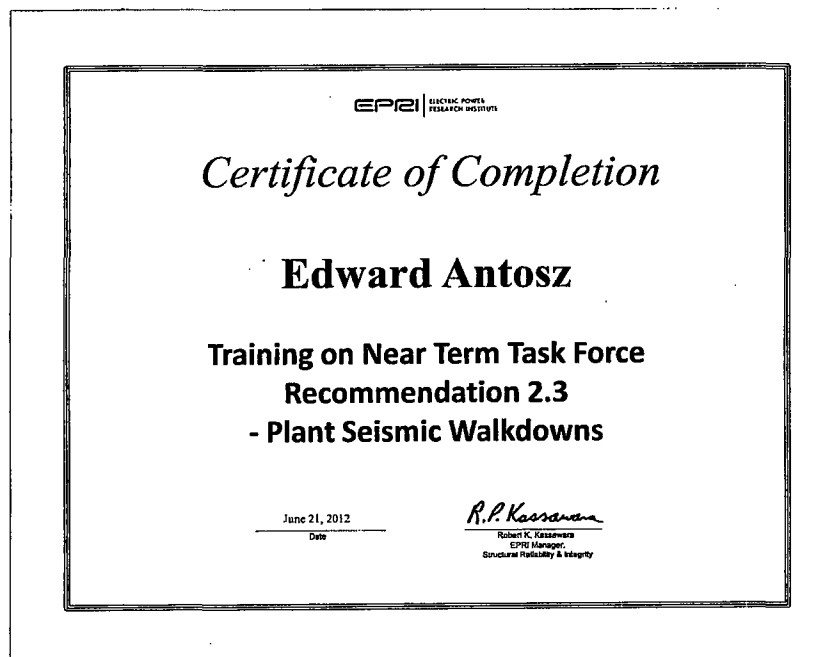
R. Turcotte

Mr. Turcotte is a Principal Engineer in the PRA Group at NextEra Energy - Seabrook Station, LLC. In this position, he contributes to all aspects of plant risk management including PRA model development and maintenance, online and outage risk assessment, and PRA applications. Mr. Turcotte joined Seabrook Station in 2008 and has over 30 years engineering experience in the nuclear industry. Prior to joining

NextEra, Mr. Turcotte was employed at AREVA-NP where he was manager of the Risk and Reliability Engineering Group responsible for the development of the PRA to support design certification of the EPR (evolutionary pressurized-water reactor) and for development of PRA business opportunities for the operating fleet. Prior to AREVA-NP, he worked at Yankee Atomic Electric Company and Duke Engineering as a senior nuclear engineer responsible for development of the initial IPE and IPEEE PRAs for Vermont Yankee. Mr. Turcotte has a Mechanical Engineering degree from Central New England College of Technology.

Ed Antosz

Mr. Antosz is an Associate Engineer in the PRA Group at NextEra Energy Seabrook with two years of experience in the nuclear industry. He has completed the necessary requirements and qualifications for a Risk Management Engineer. This qualification included the completion of Seabrook Station's Applied Systems Course. Recently, he attended training on the Near Term Task Force Recommendation 2.3 – Plant Seismic Walkdowns (see certificate below). He holds a BS in Mechanical Engineering and is currently pursuing a Masters in Nuclear Engineering, both with the University of Pittsburgh.



Bruce Bouton

Mr. Bouton is a Principal Engineer in the Mechanical Design Engineering Group at NextEra Energy Seabrook with 38 years of experience in seismic related structural design and IEEE-344 testing of components. Mr. Bouton participated in USI A-46 SQUG activities while working in the nuclear consulting industry. Recently he completed EPRI Seismic Walkdown Engineer (SWE) training (see certificate below). He holds a BSCE from the University of Massachusetts- Amherst.



Scott Kenrick, P.E.

Mr. Kenrick is a Principal Engineer in the Mechanical Design Engineering Group at NextEra Energy, Seabrook with 39 years of experience in seismic related structural design, analysis and IEEE-344 qualification of components. He worked for United Engineers and Constructors (UE&C) during Seabrook construction and participated in the original seismic design of the station structures and components. Mr. Kenrick recently completed EPRI Seismic Walkdown Engineer (SWE) training (see certificate below). He holds a BSME from Northeastern University



Walter Djordjevic, P.E.

Mr. Djordjevic is a Senior Consultant and serves as President of S&A 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. Djordjevic has 37 years of seismic experience serving the nuclear industry. Mr. Djordjevic performed and managed more than 20 USI A-46 and IPEEE projects in response to the requirements of Generic Letters 87-02 and 88-20. Mr. Djordjevic has a Master of Science in Structural Engineering from the Massachusetts Institute of Technology. He has received industry training as Seismic Capability Engineer (EPRI SQUG training), EPRI IPEEE Add-on, Seismic Fragility and Seismic Walkdown Engineer (SWE) training (see certificate below).



John O'Sullivan, P.E.,

Mr. O'Sullivan is a Senior Consultant in the S&A Boston office. He has managed and led seismic walkdowns and fragility analyses of structures and components for use in probabilistic risk assessments. Mr. O'Sullivan has 25 years of seismic experience serving the nuclear industry. Mr. O'Sullivan has participated in more than 10 USI A-46 and IPEEE projects in response to the requirements of Generic Letters 87-02 and 88-20. Mr. O'Sullivan has a Master of Science in Structural Engineering from the Massachusetts Institute of Technology. He has received industry training as Seismic Capability Engineer (EPRI 5-day SQUG training), EPRI IPEEE Add-on, and Seismic Fragility training.



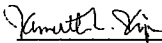
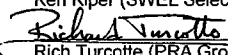
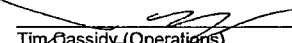
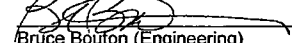
B

SWEL Selection Report

**Selection of the Seabrook Station
Seismic Walkdown Equipment List (SWEL)
for the Requirement 2.3 Walkdown**

Seabrook Station

November 2012

Prepared by	 Ken Kiper (SWEL Selection Lead)	11-1-2012 Date
Reviewed by	 Rich Turcotte (PRA Group)	11/1/2012 Date
Reviewed by	 Tim Cassidy (Operations)	11/1/2012 Date
Reviewed by	 Bruce Bouton (Engineering)	11/1/12 Date

1 Introduction

This document summarizes the process for selecting the components to be included in the seismic walkdown equipment list (SWEL) for Seabrook Station. This process is consistent with guidance in EPRI-TR-1025286^(REF 1) and meets the intent of NRC NTTF Requirement 2.3.

The SWEL walkdown locations are summarized in Table 1, along with walk-by attributes. The final Seabrook SWEL is included in Attachment A. Components were generally chosen from Train B since Train A was the protected train during the planned walkdown period.

The SWEL list was revised during the seismic walkdowns in August & September 2012 based on accessibility of anchorage. See Section 4 for details.

2 Process

The general process focuses first on building a Master Component List, with attributes to support the sample selection process (Section 3). Then a sample of Seismic Category 1 (SC1) components is made for the SWEL to assure the five safety functions are represented along with a variety of systems, environments, and component types.

The process also includes identifying a set of plant locations around which the walkdown is organized (Section 4). The plant locations are also used to support the "walk-by" process to assess cable trays and ventilation ducts and the potential for seismic spatial interactions (Section 5).

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

Because the SWEL needs to address a number of attributes, the selection was performed and reviewed by a team that includes representatives from PRA, Operations, and Engineering. This was done systematically by performing table-top virtual walkdowns and pre-walkdowns of each location to identify candidates for the SWEL as well as other issues (e.g., seismic-flood) that need to be inspected by the walk-by.

3 Master Component List

The SWEL was developed starting from the components list in the Seabrook internal events PRA^(REF 2) (SWEL 1). This list contains risk important components from the internal events PRA, one of the attributes from the EPRI guidance. Other components were added that are implicitly modeled in the PRA (e.g., instrument racks).

This list includes components related to the five safety functions - reactivity control, RCS pressure control, RCS inventory control, decay heat removal, containment function - implicitly by including components from both core-damage-frequency (CDF) and large-early-release-frequency (LERF) sequences. The five safety functions are addressed further in Section 4.1 (Screen #3).

This list was expanded to include components associated with the Spent Fuel Pool (SWEL 2). The guidance described these as "SFP SC1 equipment and systems" and includes specifically components associated with SFP cooling. Per the guidance, the SF pool structure is excluded from the walkdown. Thus, this added all SFP-related components that are Seismic Cat 1,

including pumps, valves, heat exchangers, ventilation fans, etc. In addition, the potential for rapid draindown of the SFP was evaluated (see Section 4.2, Screen #4). The conclusion of that evaluation was that there are no components that could lead to rapid draindown. Thus, the list did not need to be expanded.

Specific attributes were identified for each component to support the sample selection, as described below:

- *Seismic Class.* Each component in the master list was identified as SC1 or non-SC1. The SWEL generally applies only to SC1 since this is primarily a design-basis evaluation.
- *System.* For each component in the master list, the associated system was identified. This attribute is used to assure that the equipment selection includes a variety of types of systems.
- *Location.* For each component in the master list, the location (room ID) was identified. The walkdowns are organized by plant location (see Section 4). This also assures that the equipment selection includes a variety of environments.
- *Equipment Class.* For each component in the master list, the “equipment class” was identified. The equipment classes are the 21 types of equipment identified in Appendix B of the EPRI guidance document (see Table 2). This attribute is used to assure that the equipment selection includes a variety of types of equipment.
- *New / Replacement Equipment.* Only one of the components in the master list was identified as major new or replacement equipment in the last 15 years – the control panel DG-CP-907-B (DG-B temperature control) in the DG Bldg. Some of the equipment has been replaced (e.g., PCCW motors), but with like-kind equipment.
- *Equipment Enhanced from IPEEE.* As described in Section 6.1, no plant improvements were made as a result of the seismic portion of the IPEEE assessment.

The Master Component List is included in Attachment B (referred to as Base List 1 & Base List 2 in Section 8 of the EPRI guidance).

4 Walkdown List (SWEL)

The SWEL was created by sampling from the Master Component List, using the attributes identified in Section 3. The final SWEL is contained in Attachment A.

First, plant locations are defined to support the walkdown. A list of 11 locations (buildings or sets of rooms) were identified that contain the primary components from most of the top ten risk-important systems, as well as the Fuel Storage Bldg. Table 1 provides this list of walkdown locations. This focuses the walkdown on risk-important systems, consistent with the guidance to “... include consideration of the importance of the contribution to risk for the SSCs.”

Within these 11 locations, a total of 102 components was identified from the Master Component List (98 in SWEL 1 and 4 in SWEL 2). As shown in Attachment A, this process assured that a variety of systems, environments and equipment classes are represented. This sample was also reviewed by Operations and Engineering to assure these components were accessible and that the anchorage was visible.

The SWEL list was revised during the seismic walkdowns in August & September 2012 based on accessibility of anchorage. The following modifications were made:

- 4 deletions
The fans on the Cooling Tower roof (1-SW-FN-51-B & 2-SW-FN-51-B) were examined, but only half of the bolts could be observed. Similarly, the ventilation fan (EAH-FN-31-B) and air conditioner (EAH-AC-2-B) in the Containment Enclosure Ventilation Area were examined but anchorage could not be fully observed.
- 3 substitutions
Power panel EDE-PP-112-B was included in place of EDE-PP-111-B, since PP-111-B anchorage could not be observed. Pump CS-P-3-A was included in place of CS-P-3-B, since the access to P-3-B was more difficult. Inside containment, AOV CC-V-176 was included in place of COP-V-2 due to accessibility.
- 1 addition
Control panel DG-CP-907-B (DG-B temperature control) was added as a new component of the last few years.

The final count of SWEL components was 102.

4.1 Screening for SWEL 1

The screening process for SWEL 1 meets the requirements of the EPRI-TR as described below:

- **Screen #1 Seismic Category 1**
Non-seismic-category 1 components are screened out of the Master Component List. This screening was performed using the "Safety-Related" attribute in Master Component List, since Safety Related components are also Seismic Category 1. This was verified using UFSAR Table 3.2-2 "Design of Structures, Components, Equipment, and Systems."
- **Screen #2 Equipment or Systems**
Components selected for the SWEL 1 were those that do not undergo regular inspection to confirm their configuration. Thus, SC1 structures, containment penetrations, and SC1 piping systems were excluded. As a result, the SWEL includes mechanical and electrical equipment plus tanks and heat exchangers (as demonstrated in Screen #4, "equipment type" below).
- **Screen #3 Supports Five Safety Functions**
The SWEL includes components from all five safety functions, as follows:
 1. *Reactivity Control*
 - Emergency Boration (Boric acid pump, tanks);
 - Support systems (AC power, DC power).
 2. *RCS Pressure Control*
 - Secondary pressure control (ASDV, MSIV)
 3. *RCS Inventory Control*
 - ECCS (SI pump, RH pump, MOVs, RWST)

- Support systems (AC power, DC power, EAH ventilation, CC pumps & MOVs).

4. *Decay Heat Removal*

- Secondary heat removal (EFW pump, EFW MOVs, CST, ASDV);
- RHR shutdown cooling (RHR pump & MOVs, CC pumps & MOVs, SW pumps & MOVs, heat exchangers,);
- Support systems (AC power, DC power, EFPV ventilation, EAH ventilation, SWA ventilation).

5. *Containment Function*

- Containment isolation (CC valve, MSD valves)
- Containment spray injection (CBS pump, RWST)
- Containment spray heat removal (CBS pump, CBS heat exchanger, CC pumps & MOVs, SW pump & MOVs)
- Support systems (EAH ventilation, CC pumps & MOVs, AC power, DC power).

• **Screen #4 Sample Considerations**

The SWEL includes components from various systems, environments, and types:

- *System.* The SWEL includes components from a number of types of systems – power support systems (EDE, DG), cooling support systems (SW, CC), ventilation systems (DAH, SWA, EAH), hot shutdown systems (EFW, CO), ECCS (RH, SI), containment spray (CBS), and spent fuel cooling (SF).
- *Environment.* The SWEL includes components from a number of locations in most of the major SC1 buildings on site – PAB, Control Bldg, DG Bldg, EFW pumphouse, Cooling Tower, Containment. These locations involve different environments, from ventilation controlled areas (DG Bldg) to outside areas (CST, Cooling Tower roof); from areas with normally running equipment (PAB) to areas with normally standby equipment (Cooling Tower). These locations involve different environments related to elevation, from (-)61' elevation in the RHR equipment vault to (+)46' elevation in the Cooling Tower pump room.

The following table summarizes the count of components by location.

SWEL Location	Building Name	Count of Components
SWEL-01	SW Cooling Tower	11
SWEL-02	DG Bldg Train B	17
SWEL-03	CB Essential SWGR Train B	12
SWEL-04	Emergency Feedwater Pumphouse	9
SWEL-05	MS/FW Pipe Chase (East)	7
SWEL-06	RHR Equipment Vault Train B	15
SWEL-07	Refueling Water Storage Tank	3
SWEL-08	PAB 25' Elevation	17
SWEL-09	Containment Enclosure Ventilation Area	2
SWEL-10	Containment	5
SWEL-11	Fuel Storage Bldg	4
TOTAL		102

- *Equipment Type.* The SWEL includes components from most of the 21 equipment classes. Table 2 provides a list of the 21 equipment classes. The following table shows the SWEL count by equipment class. As noted below and in Table 2, only Class 10 (air handler), Class 11 (chiller), and Class 13 (motor generator) components were not represented on the SWEL.

Equipment Class	Count of Components
(01) 480V MCC	3
(02) 125 VDC SWGR	1
(02) 480V unit sub	2
(03) 4 KV SWGR	1
(04) transformer	2
(05) motor-driven pump	11
(06) pump (vertical drive)	2
(07) AOV	13
(07) electro-hydraulic valve	1
(07) pneumatic damper	2
(08) MOV	26
(09) fan	5
(12) compressor	1
(14) power panel	2
(15) battery	1
(16) battery charger	1
(16) inverter	1
(17) diesel generator	1
(18) instrument rack	4
(19) temperature device	5
(20) control panel	6
(21) heat exchanger	5
(21) tank	6

Note: Air conditioner EAH-AC-2-B, representing equipment classes 10 and 11 (Air Handler and Chiller) was originally on the SWEL. However, during walkdown the EAH-AC unit was examined but the anchorage could not be completely verified. As a result, this component was removed from the walkdown scope.

4.2 Screening for SWEL 2

The screening process for SWEL 2 meets the requirements of the EPRI-TR as described below:

- **Screen #1 Seismic Category 1**

Non-seismic-category 1 components related to SFP cooling are screened out of the Master Component List. This screening was performed using the "Safety-Related" attribute in Master Component List, since Safety Related components are also Seismic Category 1. This was verified using UFSAR Table 3.2-2 "Design of Structures, Components, Equipment, and Systems."

- **Screen #2 Equipment or Systems**

Components selected for the SWEL 2 were those that do not undergo regular inspection to confirm their configuration. Thus, SC1 structures including the SF Pool and SC1

pipng systems were excluded. As a result, the SWEL includes mechanical and electrical equipment plus heat exchangers (as demonstrated in Screen #3, "equipment type" below).

- **Screen #3 Sample Considerations**

The SWEL 2 includes components from a variety of systems, environments, and types:

- *System.* The systems in SWEL 2 include SF (spent fuel) system, FAH (Fuel Storage Bldg ventilation), and CC (cooling to SF heat exchangers).
- *Environment.* The SWEL 2 includes components are all located in the Fuel Storage Bldg, involve different environments related to elevation, from (+)7' elevation in the SF pump area to +64' in the ventilation area.
- *Equipment Type.* The SWEL 2 includes components from four of the 21 equipment classes.

- **Screen #4 Rapid Draindown**

The EPRI guidance requires assessment of the potential for SFP rapid draindown, specifically the identification of SFP penetrations below about 10 feet above the top of the fuel assemblies. The only penetration in the SFP below this level is the fuel transfer tube, used to move fuel from containment to the SFP. During normal operation, this tube is isolated by a blind flange on the containment side and a manual valve on the Fuel Storage Bldg side. The blind flange is a passive structural member that is judged to be out of scope for this evaluation. Thus, there are no SFP penetrations that could fail from a seismic event and lead to rapid draindown.

The EPRI guidance includes "determine how pool sloshing would reduce the initial volume of water in the SFP during a seismic event." This is required only if components related to rapid draindown were identified that could not be inspected.

5 Walk-By Table

Each location will also be subject to a walk-by, an examination (in less detail) of the other PRA components 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.

Table 1 provides an initial assessment for each location to assist the walk-by process.

6 Evaluations

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

6.1 IPEEE Vulnerabilities

The seismic assessment performed for the Seabrook IPEEE Report^(REF 3) was reviewed for any seismic vulnerabilities identified. Several plant improvements were made in response to fire analysis and external flood and high winds analysis in the IPEEE. However, no plant improvements were made as a result of the seismic portion of the IPEEE. (See NRC SER on IPEEE^(REF 4), page 2).

6.2 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. Since 42 SWEL components are MOVs (Class 8) or AOVs (or similar Class 7 components) which do not have anchorage, this leaves 50% of (102 – 42), or at least 30 components to be included in the configuration verification. This resulted in a total of 39 components that are identified in Attachment A. For those components, the design basis was reviewed and the key attributes included in the walkdown forms to assist the inspection.

6.3 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, only one new or replacement equipment was identified in the 11 walkdown locations – the control panel DG-CP-907-B (DG-B temperature control) in the DG Bldg.

7 References

- (1) EPRI TR-1025286, “Seismic Walkdown Guidance,” June 2012.
- (2) Seabrook PRA, SSPSS-2011, June 2011.
- (3) IPEEE Report for Seabrook Station, Sept 1992.
- (4) NRC SER on Seabrook IPEEE, May 2001.

TABLE 1: SWEL WALKDOWN LOCATIONS

SWEL	Building	Room IDs	Elev. (ft)	WKDN Equip ^(a)	Cable Trays	Vent Duct	Fire Source ^(b)	Flood Source ^(c)	2 / 1 Items
SWEL-01	SW Cooling Tower	CT101	22	x			MCC-641		
		CT202	46	x				SW	
SWEL-02	DG Bldg Train B	DG102	-16	x			FO	FP	
		DG202	21	x	x	x	FO, MCC-611	FP, DW, HW, DGJW	hoist CR-28B
		DG305	51	x			FO		
		DG308	51	x	x	x		CH	
SWEL-03	CB Essential SWGR Train B	CB105	21	x	x	x	Bus E6, multiple MCCs	PW	
		CB106	21	x		x			
SWEL-04	EFW Pumphouse	EF301	27	x	x			FP, CO, HW	hoist CR-27
SWEL-05	MS/FW Pipe Chase (East)	MF206	3	x		x		FW, MS	
		MF304	12	x		x		FW, MS	
		MF403	27	x		x		FW, MS	hoist
SWEL-06	RHR Equipment Vault Train B	RV102	-61	x				RWST, CC, DW	
		RV104	-61	x				RWST, CC, DW	
		RV202	-50	x				RWST, CC, DW	
		RV302	-31	x				RWST, CC, DW	
		RV304	-31	x				RWST, CC, DW	
		RVST2	20	x	x			FP	
SWEL-07	RWST	TF201	20	x				RWST, SAT, AS	
SWEL-08	PAB 25' Elevation	PB401	25	x	x			SW, CC	hoist
		PB404	25	x	x		BUS-12, 25 MCC-122, 252	FP, SW, CC, SB, DGJW, DW	hoist CR-5, CR-15A, CR-15B, CR-41
		PB411	25	x			WG(H2)	BA, RM	hoist
		PB412	25	x				FP, SW, DGJW	hoist
SWEL-09	CEVA	EV101	21	x	x			CC, DW	hoist CR-44, CR-55
SWEL-10	Containment	CI205	-26	x	x				
		CI301	0	x					
SWEL-11	Fuel Storage Bldg	FB107	7	xx		x		FP, SFP, CC, RM, DW, HW, AS	
		FB202	21	xx	x	x	MCC-123	FP, FC, CC, RM, DW, HW, AS	
		FB301	64	xx					

NOTES:

(a) *WKDN Equip*: components on the walkdown list for SWEL 1 (x) & SWEL 2 (xx).

(b) *Fire Sources*: flammable material, high voltage cabinets, WG (waste gas – hydrogenated)

(c) *Flood Sources*:

AS	Auxiliary Steam
BA	Boric Acid
CC	PCCW
CH	Chilled Water
CO	Condensate
CW	Circulating Water
DG JW	DG Jacket Cooling Water

DW	Demin. Water
FO	Fuel Oil
FP	Fire Protection
FW	Feedwater
HW	Hot Water Heating
MS	Main Steam
PW	Potable Water

RM	Reactor Makeup Water
RWST	RWST Water
SAT	SAT Water
SB	SG Blowdown
SF	Spent Fuel Pool Cooling
SW	Service Water

ATTACHMENT A: MASTER EQUIPMENT LIST (BASE LIST 1 & BASE LIST 2)

Master equipment list (446 components)

Tag ID	Component Description	SWEL?
1-CBS-E-16-A	CBS HX CBS-E-16A	no
1-CBS-E-16-B	CBS HX CBS-E-16B	YES
1-CBS-P-9-A	CBS PUMP CBS-P-9A	no
1-CBS-P-9-B	CBS PUMP CBS-P-9B	YES
1-CBS-TK-8	RWST TANK CBS-TK-8	YES
1-CBS-V-11	CBS Pump P-9A Discharge MOV CBS-V-11	no
1-CBS-V-14	RHR Train B Suction from CRS MOV CBS-V-14	no
1-CBS-V-17	CBS Pump P-9B Discharge MOV CBS-V-17	no
1-CBS-V-2	RWST Train A Isolation MOV CBS-V-2	no
1-CBS-V-47	SI Pump P-6A Suction MOV CBS-V-47	no
1-CBS-V-49	SI Pump P-6A Suction MOV CBS-V-49	no
1-CBS-V-5	RWST Train B Isolation MOV CBS-V-5	YES
1-CBS-V-51	SI Pump P-6B Suction MOV CBS-V-51	YES
1-CBS-V-53	SI Pump P-6B Suction MOV CBS-V-53	no
1-CBS-V-8	RHR Train A Suction from CRS MOV CBS-V-8	no
1-CC-E-153-A	Thermal Barrier HX Train A	no
1-CC-E-153-B	Thermal Barrier HX Train B	no
1-CC-E-17-A	TRAIN A HX E-17A	no
1-CC-E-17-B	TRAIN B HX E-17B	YES
1-CC-P-11-A	PCC PUMP CC-P-11A	no
1-CC-P-11-B	PCC PUMP CC-P-11B	YES
1-CC-P-11-C	PCC PUMP CC-P-11C	no
1-CC-P-11-D	PCC PUMP CC-P-11D	YES
1-CC-P-322-A	Thermal Barrier Train A PUMP P322A	YES
1-CC-P-322-B	Thermal Barrier Train B PUMP P322B	no
1-CC-TE-2171	PCC Train A Temperature ELEMENT CC-TE-2171	no
1-CC-TE-2197	PCC Train A Temperature ELEMENT CC-TE-2197	no
1-CC-TE-2271	PCC Train B Temperature ELEMENT CC-TE-2271	YES
1-CC-TE-2297	PCC Train B Temperature ELEMENT CC-TE-2297	YES
1-CC-TK-19-B	PCC Train B HEAD TANK CC-TK-19B	no
1-CC-TV-2171-1	PCC Train A HX TV-2171-1	no
1-CC-TV-2171-2	PCC Train A HX TV-2171-2	no
1-CC-TV-2271-1	PCC Train B HX TV-2271-1	YES
1-CC-TV-2271-2	PCC Train B HX TV-2271-2	YES
1-CC-V-1092	Thermal Barrier PCC "B" Supply Isolation MOV V1092	no
1-CC-V-1095	Thermal Barrier PCC "B" Return Isolation MOV V1095	no
1-CC-V-1101	Thermal Barrier PCC "A" Supply Isolation MOV V1101	no
1-CC-V-121	Containment Return Isolation AOV (inside) CC-V-121	no
1-CC-V-122	Containment Return Isolation AOV (outside) CC-V-122	no
1-CC-V-137	PCC to CBS HX E-16A Isolation MOV CC-V-137	no
1-CC-V-145	PCC MOV CC-V-145	no
1-CC-V-168	Containment Supply Isolation AOV (outside) CC-V-168	no
1-CC-V-175	Containment Supply Isolation AOV (outside) CC-V-175	no
1-CC-V-176	Containment Supply Isolation AOV (inside) CC-V-176	YES
1-CC-V-256	Containment Return Isolation AOV (inside) CC-V-256	no
1-CC-V-257	Containment Return Isolation AOV (outside) CC-V-257	no
1-CC-V-266	PCC to CBS HX E-16B Isolation MOV CC-V-266	YES
1-CC-V-272	PCC MOV CC-V-272	YES
1-CC-V-32	Spent Fuel Pool HX Isolation AOV CC-V-32	no
1-CC-V-341	LTDN HX Isolation AOV CC-V-341	no

Tag ID	Component Description	SWEL?
1-CC-V-395	RC-P-1B Thermal Barrier Loop Isolation MOV V395	no
1-CC-V-426	WPB Supply Isolation AOV CC-V-426	no
1-CC-V-427	WPB Return Isolation AOV CC-V-427	no
1-CC-V-428	RC-P-1A Thermal Barrier Loop Isolation MOV V428	no
1-CC-V-438	RC-P-1C Thermal Barrier Loop Isolation MOV V438	no
1-CC-V-439	RC-P-1D Thermal Barrier Loop Isolation MOV V439	no
1-CC-V-445	Spent Fuel Pool HX Isolation AOV CC-V-445	YES
1-CC-V-447	WPB Supply Isolation AOV CC-V-447	no
1-CC-V-448	WPB Return Isolation AOV CC-V-448	no
1-CC-V-57	Containment Supply Isolation AOV (inside) CC-V-57	no
1-COP-V-1	COP V1	no
1-COP-V-2	COP V2	no
1-COP-V-3	COP V3	no
1-COP-V-4	COP V4	no
1-CO-TK-25	Condensate Storage TANK CO-TK-25	no
1-CP-CP-111	REACTOR TRIP SWITCHGEAR CAB	no
1-CP-CP-112	ROD DRIVE POWER SUPPLY CABINET	no
1-CP-CP-113-A	ROD CONTROL POWER CAB 1AC	no
1-CP-CP-113-E	ROD CONTROL POWER CAB SCDE	no
1-CP-CP-276	ROD CONTROL LOGIC CAB	no
1-CP-MG-1-A	ROD DRIVE M-G SET A	no
1-CP-MG-1-B	ROD DRIVE M-G SET B	no
1-CS-CP-384	B.A. BATCHING TANK PANEL	no
1-CS-FCV-121	CS Pumps Common Seal Discharge AOV FCV121	no
1-CS-LCV-112-B	VCT Isolation MOV CS-LCV-112B	no
1-CS-LCV-112-C	VCT Isolation MOV CS-LCV-112C	no
1-CS-LCV-112-D	CS A Pump Suction MOV CS-LCV-112D	YES
1-CS-LCV-112-E	CS B Pump Suction MOV CS-LCV-112E	YES
1-CS-P-128	PDP CS PUMP	no
1-CS-P-2-A	CS PUMP CS-P-2A	no
1-CS-P-2-B	CS PUMP CS-P-2B	no
1-CS-P-3-A	Boric Acid Tank PUMP CS-P-3A	YES
1-CS-P-3-B	Boric Acid Tank PUMP CS-P-3B	no
1-CS-TK-4-A	Boric Acid Tank 4A	YES
1-CS-TK-4-B	Boric Acid Tank 4B	YES
1-CS-TV-130	Letdown HX Outlet AOV CS-TV-130	no
1-CS-V-10	RC-P-1A Seal Injection Leakoff AOV	no
1-CS-V-154	RC-P-1D MOV (inbound/outside cont.)	no
1-CS-V-158	RC-P-1C MOV (inbound/outside cont.)	no
1-CS-V-162	RC-P-1B MOV Isolation VALVE (inbound/outside cont.)	no
1-CS-V-166	MOTOR OPERATED Isolation VALVE MOV V166	no
1-CS-V-167	Penetration X-37 Isolation MOV CS-V-167	no
1-CS-V-168	Penetration X-37 Isolation MOV CS-V-168	no
1-CS-V-205	CS-V-205 PDP minimum flow	no
1-CS-V-28	RC-P-1B Seal Injection Leakoff AOV	no
1-CS-V-44	RC-P-1C Seal Injection Leakoff AOV	no
1-CS-V-460	SI-CS Crosstie MOV CS-V-460	no
1-CS-V-461	SI-CS Crosstie MOV CS-V-461	no
1-CS-V-475	SI-CS Crosstie MOV CS-V-475	no
1-CS-V-59	RC-P-1D Seal Injection Leakoff AOV	no
1-DAH-CP-293	CP FOR DAH-F-42 DAH-CS-5361	no
1-DAH-CP-294	CP FOR DAH-F-61 DAH-CS-5360	no
1-DAH-FN-25-A	DG Supply FAN DAH-FN-25A	no
1-DAH-FN-25-B	DG Supply FAN DAH-FN-25B	YES

Tag ID	Component Description	SWEL?
1-DAH-FN-26-A	DG Return FAN DAH-FN-26A	no
1-DAH-FN-26-B	DG Return FAN DAH-FN-26BB	no
1-DG-C-2-A	DG-1A Starting Air Compressor Skid	no
1-DG-C-2-B	DG-1B Starting Air Compressor Skid	YES
1-DG-CP-36	DG-1A TERM BOX ELEC CONTROL PNL	no
1-DG-CP-37	DG-1B TERM BOX ELEC CONTROL PNL	YES
1-DG-CP-75-A	DG-1A CONTROL PANEL A	no
1-DG-CP-75-B	DG-1A CONTROL PANEL B	no
1-DG-CP-76-A	DG-1B CONTROL PANEL A	YES
1-DG-CP-76-B	DG-1B CONTROL PANEL B	no
1-DG-CP-77	DG-1A ENGINE GAUGE PANEL	no
1-DG-CP-78	DG-1B ENGINE GAUGE PANEL	no
1-DG-CP-79	EMERGENCY POWER SEQUENCER DG1A	no
1-DG-CP-80	EMERGENCY POWER SEQUENCER DG1B	YES
1-DG-CP-907-B	DG-1B Temperature Control Panel	YES
1-DG-DG-1-A	DG-1A	no
1-DG-DG-1-B	DG-1B	YES
1-DG-E-41-A	DG Lube Oil Heat Exchanger 41-A	no
1-DG-E-41-B	DG Lube Oil Heat Exchanger 41-B	YES
1-DG-E-42-A	DG Heat Exchanger 42-A	no
1-DG-E-42-B	DG Heat Exchanger 42-B	no
1-DG-P-115-A	DG-1A Engine Driven LUBE OIL PUMP	no
1-DG-P-115-B	DG-1B Engine Driven LUBE OIL PUMP	no
1-DG-P-117-A	DG-1A Motor Driven Aux LUBE OIL PUMP	no
1-DG-P-117-B	DG-1B Motor Driven Aux LUBE OIL PUMP	YES
1-DG-P-118-A	DG-1A Motor Driven Aux FUEL OIL PUMP	no
1-DG-P-118-B	DG-1B Motor Driven Aux FUEL OIL PUMP	YES
1-DG-P-119-A	DG-1A Engine Driven FUEL OIL PUMP	no
1-DG-P-119-B	DG-1B Engine Driven FUEL OIL PUMP	no
1-DG-P-121-A	DG-P-121-A Engine Driven Jacket water cooling Pump	no
1-DG-P-121-B	DG-P-121-B Engine Driven Jacket water cooling Pump	no
1-DG-P-123-A	DG-P-123-A Engine Driven Intercooler Gen. Bearing cooling Pump	no
1-DG-P-123-B	DG-P-123-B Engine Driven Intercooler Gen. Bearing cooling Pump	no
1-DG-P-38-A	DG-1A Fuel Oil Transfer Pump	no
1-DG-P-38-B	DG-1B Fuel Oil Transfer Pump	YES
1-DG-TCV-7-A1	DG-TCV-7-A1	no
1-DG-TCV-7-A2	DG-TCV-7-A2	no
1-DG-TCV-7-B1	DG-TCV-7-B1	YES
1-DG-TCV-7-B2	DG-TCV-7-B2	no
1-DG-TK-26-A	DG-1A Fuel Oil Storage TANK DG-TK-26A	no
1-DG-TK-26-B	DG-1B Fuel Oil Storage TANK DG-TK-26B	YES
1-DG-TK-78-A	DG-1A Fuel Oil Day TANK DG-TK-78A	no
1-DG-TK-78-B	DG-1B Fuel Oil Day TANK DG-TK-78B	YES
1-DG-V-11-A	DG-V-11-A SUP ISOL TO JACKET COOLANT FROM P-122A DISCH	no
1-DG-V-11-B	DG-V-11-B SUP ISOL TO JACKET COOLANT FROM P-122B DISCH	YES
1-DG-V-12-A	DG-V-12-A Supply Isolation to P-122A from Jacket Coolant Pump	no
1-DG-V-12-B	DG-V-12-B Supply Isolation to P-122B from Jacket Coolant Pump	no
1-DG-V-13-A	DG-V-13-A Supply Isolation to P-122A from Heat Exchanger 42A	no
1-DG-V-13-B	DG-V-13-B Supply Isolation to P-122B from Heat Exchanger 42B	no
1-DG-V-9-A	DG-V-9-A Supply Isolation to Air Cooler system from P-122A fail	no
1-DG-V-9-B	DG-V-9-B Supply Isolation to Air Cooler system from P-122B fail	YES
1-DM-TK-109	Demin Water TANK TK-109	no
1-DM-TK-259	Demin Water TANK TK-259	no
1-EAH-AC-2-A	CE Air Conditioner AC-2A	no

Tag ID	Component Description	SWEL?
1-EAH-AC-2-B	CE Air Conditioner AC-2B	no
1-EAH-CP-504	RHR VAULTS & EL TNL HVAC CTL PNL	no
1-EAH-FN-180-A	CCP Cubicle Return FAN EAH-FN-180A	no
1-EAH-FN-180-B	CCP Cubicle Return FAN EAH-FN-180B	YES
1-EAH-FN-31-A	RHR Vault Exhaust FAN EAH-FN-31A	no
1-EAH-FN-31-B	RHR Vault Exhaust FAN EAH-FN-31B	no
1-EAH-FN-5-A	CE Air Handling FAN EAH-FN-5A	no
1-EAH-FN-5-B	CE Air Handling FAN EAH-FN-5B	no
1-EDE-B-1-A	BATTERY EDE-B-1A	no
1-EDE-B-1-B	BATTERY EDE-B-1B	YES
1-EDE-BC-1-A	BATTERY CHARGER EDE-BC-1A	no
1-EDE-BC-1-B	BATTERY CHARGER EDE-BC-1B	YES
1-EDE-CP-227	FUSE & SHUNT BOX 1A	no
1-EDE-CP-229	FUSE & SHUNT BOX 1C	no
1-EDE-CP-230	FUSE & SHUNT BOX 1D	no
1-EDE-CP-248	AUX RELAY PNL ASS WITH PP-112A	no
1-EDE-CP-249	AUX RELAY PNL ASS WITH PP-112B	no
1-EDE-I-1-A	INVERTER EDE-I-1A	no
1-EDE-I-1-B	INVERTER EDE-I-1B	no
1-EDE-I-1-C	INVERTER EDE-I-1C	no
1-EDE-I-1-D	INVERTER EDE-I-1D	no
1-EDE-I-1-E	INVERTER EDE-I-1E	no
1-EDE-I-1-F	INVERTER EDE-I-1F	YES
1-EDE-MCC-511	MCC E511	no
1-EDE-MCC-512	MCC E512	no
1-EDE-MCC-513	MCC E512	no
1-EDE-MCC-514	MCC E514	no
1-EDE-MCC-515	MCC E515	no
1-EDE-MCC-521	MCC E521	no
1-EDE-MCC-522	MCC E522	no
1-EDE-MCC-531	MCC E531	no
1-EDE-MCC-611	MCC E611	YES
1-EDE-MCC-612	MCC E612	YES
1-EDE-MCC-614	MCC E614	no
1-EDE-MCC-615	MCC E615	no
1-EDE-MCC-621	MCC E621	no
1-EDE-MCC-622	MCC E622	no
1-EDE-MCC-631	MCC E631	no
1-EDE-MCC-641	MCC E641	YES
1-EDE-PP-111-A	DC Power Panel 111A	no
1-EDE-PP-111-B	DC Power Panel 111B	no
1-EDE-PP-112-B	DC Power Panel 112B	YES
1-EDE-PP-1-A	120V AC POWER PANEL (EDE-PP-1A)	no
1-EDE-PP-1-B	120V AC POWER PANEL (EDE-PP-1B)	YES
1-EDE-PP-1-C	120V AC POWER PANEL (EDE-PP-1C)	no
1-EDE-PP-1-D	120V AC POWER PANEL (EDE-PP-1D)	no
1-EDE-SWG-11-A	125V DC BUS 11A	no
1-EDE-SWG-11-B	125V DC BUS 11B	YES
1-EDE-SWG-5	4KV BUS E5	no
1-EDE-SWG-6	4KV BUS E6	YES
1-EDE-US-51	480V BUS E51	no
1-EDE-US-52	480V BUS E52	no
1-EDE-US-53	480V BUS E53	no
1-EDE-US-61	480V BUS E61	YES

Tag ID	Component Description	SWEL?
1-EDE-US-62	480V BUS E62	no
1-EDE-US-63	480V BUS E63	no
1-EDE-US-64	480V BUS E64	YES
1-EDE-X-5-A	4KV to 480V TRANSFORMER X-5A (E5 to E51)	no
1-EDE-X-5-B	4KV to 480V TRANSFORMER X-5B (E5 to E52)	no
1-EDE-X-5-C	4KV to 480V TRANSFORMER X-5C (E6 to E61)	YES
1-EDE-X-5-D	4KV to 480V TRANSFORMER X-5D (E6 to E62)	no
1-EDE-X-5-E	4KV to 480V TRANSFORMER X-5E (E5 to E53)	no
1-EDE-X-5-F	4KV to 480V TRANSFORMER X-5F (E6 to E63)	no
1-EDE-X-5-H	4KV to 480V TRANSFORMER X-5H (E6 to E64)	YES
1-EPA-FN-47-A	EFW Train A Supply FAN EPA-FN-47A	no
1-EPA-FN-47-B	EFW Train B Supply FAN EPA-FN-47B	YES
1-EPA-TSH-5430	EPA Fan Temperature Control	no
1-EPA-TSH-5431	EPA Fan Temperature Control	YES
1-FAH-FN-11-A	EXHAUST FAN FOR F-41 FN-11A	no
1-FAH-FN-11-B	EXHAUST FAN FOR F-74 FN-11B	YES
1-FW-FV-4214-A	FW FV4214A	YES
1-FW-FV-4214-B	FW FV4214B	YES
1-FW-FV-4224-A	FW FV4224A	YES
1-FW-FV-4224-B	FW FV4224B	YES
1-FW-FV-4234-A	FW FV4234A	no
1-FW-FV-4234-B	FW FV4234B	no
1-FW-FV-4244-A	FW FV4244A	no
1-FW-FV-4244-B	FW FV4244B	no
1-FW-P-37-A	Turbine Driven PUMP FW-P-37A	no
1-FW-P-37-B	Motor Driven PUMP FW-P-37B	YES
1-FW-V-30	FW Isolation pneum valve V30	no
1-FW-V-346	TD EFW Pump Recirc Valve FWV346	no
1-FW-V-347	MD EFW Pump Recirc Valve FWV347	YES
1-FW-V-39	FW Isolation pneum valve V39	YES
1-FW-V-48	FW Isolation pneum valve V48	YES
1-FW-V-57	FW Isolation pneum valve V57	no
1-MM-CP-1	PROCESS I&C PROTECT I CAB	no
1-MM-CP-108-A	REM SAFE SHTDWN CONTROL PANEL	no
1-MM-CP-108-B	REM SAFE SHTDWN CONTROL PANEL	YES
1-MM-CP-12	SSPS TRAIN A CABINET	no
1-MM-CP-12	LOGIC CABINET Train A CP-12	no
1-MM-CP-13	SSPS TRAIN B CABINET	no
1-MM-CP-13	LOGIC CABINET Train B CP-13	no
1-MM-CP-14	SAFEGUARD TEST TRAIN A CAB	no
1-MM-CP-15	SAFEGUARD TEST TRAIN B CAB	no
1-MM-CP-2	PROCESS I&C PROTECT II CAB	no
1-MM-CP-23	HVAC CABINET 1	no
1-MM-CP-25	COMPUTER RPS DEMULTIPLEXER	no
1-MM-CP-295	OPERATOR CONSOLE	no
1-MM-CP-3	PROCESS I&C PROTECT III CAB	no
1-MM-CP-30	MCB SSPS DEMULTIPLEXER	no
1-MM-CP-4	PROCESS I&C PROTECT IV CAB	no
1-MM-CP-418	ANNUN 120V AC CONTROL PANEL	no
1-MM-CP-450-A	RSS DISABLE PNL TRAIN A	no
1-MM-CP-450-B	RSS DISABLE PNL TRAIN B	YES
1-MM-CP-470	ISOLATION CABINET	no
1-MM-CP-486-A	RVLIS / HELB CONTROL CAB TRNA	no
1-MM-CP-486-B	RVLIS / HELB CONTROL CAB TRNB	no

Tag ID	Component Description	SWEL?
1-MM-CP-5	PROCESS I&C CTL GROUP 1 CAB	no
1-MM-CP-519	ATWS MITIGATION CONTROL POWER CABINET	no
1-MM-CP-6	PROCESS I&C CTL GROUP 2 CAB	no
1-MM-CP-609	DCS PROCESS CONTROL PANEL	no
1-MM-CP-612	DCS SECONDARY OPERATORS CONSOLE	no
1-MM-CP-618	PRIMARY OPERATORS CONSOLE	no
1-MM-CP-619	USS OPERATORS CONSOLE	no
1-MM-CP-7	PROCESS I&C CTL GROUP 3 CAB	no
1-MM-CP-8	PROCESS I&C CTL GROUP 4 CAB	no
1-MM-IR-1	LOOP 1 INST RACK	no
1-MM-IR-10-A	CS INST RACK	YES
1-MM-IR-10-B	CS INST RACK	no
1-MM-IR-10-C	CS INST RACK	no
1-MM-IR-10-D	CS INST RACK	no
1-MM-IR-11	CS INST RACK	no
1-MM-IR-12	PENETRATION AREA NORTH INSTR RACK	no
1-MM-IR-13-A	PENETRATION AREA SOUTH INSTR RACK	no
1-MM-IR-14	VAULT 1 INSTRUMENT RACK	no
1-MM-IR-15	VAULT 1 INSTRUMENT RACK	no
1-MM-IR-17	PAB INSTR RACK	no
1-MM-IR-18-A	PAB INSTR RACK	no
1-MM-IR-18-B	PAB INSTR RACK	no
1-MM-IR-19-A	PAB INSTR RACK	no
1-MM-IR-19-B	PAB INSTR RACK	no
1-MM-IR-2	LOOP 2 INST RACK	no
1-MM-IR-21-A	PAB INSTR RACK	no
1-MM-IR-3	LOOP 3 INST RACK	no
1-MM-IR-4	LOOP 4 INST RACK	no
1-MM-IR-49	EMERGE FWP HSE	no
1-MM-IR-50	EMERG FWP HSE INSTRUMENT RACK	YES
1-MM-IR-52-A	INSTRUMENT RACK	no
1-MM-IR-52-B	INSTRUMENT RACK	no
1-MM-IR-6	CS INST RACK	no
1-MM-IR-63	TANK FARM INSTRUMENT RACK	no
1-MM-IR-7	CS INST RACK	no
1-MM-IR-71	TANK FARM INSTRUMENT RACK	no
1-MM-IR-73	SERVICE WATER PMP HSE RACK	no
1-MM-IR-8	CS INST RACK	no
1-MM-IR-80	INSTR RK FS BLDG EL 7-0	no
1-MM-IR-93	PAB INST RACK	YES
1-MM-IR-94	PAB INST RACK	YES
1-MS-CP-183	MAIN STEAM ISO VLV CAB TRAIN B	no
1-MS-CP-185	MAIN STEAM ISO VLV CAB TRAIN B	no
1-MSD-V-44	Steam Drain MOV MSD-V-44	no
1-MSD-V-45	Steam Drain MOV MSD-V-45	YES
1-MSD-V-46	Steam Drain MOV MSD-V-46	YES
1-MSD-V-47	Steam Drain MOV MSD-V-47	no
1-MS-PV-3001	ASDV-A RELIEF VALVE MS-PV-3001	no
1-MS-PV-3002	ASDV-B RELIEF VALVE MS-PV-3002	YES
1-MS-PV-3003	ASDV-C RELIEF VALVE MS-PV-3003	no
1-MS-PV-3004	ASDV-D RELIEF VALVE MS-PV-3004	no
1-MS-V-393	SG Steam Supply to Turbine Driven EFW AOV MS-V-393	no
1-MS-V-394	SG Steam Supply to Turbine Driven EFW AOV MS-V-394	YES
1-MS-V-395	Steam Admission VALVE MS-V-395	no

Tag ID	Component Description	SWEL?
1-MS-V-86	MSIV-A MS-V-86	no
1-MS-V-88	MSIV-B MS-V-88	YES
1-MS-V-90	MSIV-C MS-V-90	no
1-MS-V-92	MSIV-D MS-V-92	no
1-NG-FV-4609	Penetration X-40 Isolation VALVE NG-FV-4609	no
1-NG-FV-4610	Penetration X-40 Isolation VALVE NG-FV-4610	no
1-PAH-DP-35-A	Pneumatic Isolation DAMPER PAH-DP-35A	no
1-PAH-DP-35-B	Pneumatic Isolation DAMPER PAH-DP-35B	no
1-PAH-DP-36-A	Pneumatic Isolation DAMPER PAH-DP-36A	no
1-PAH-DP-36-B	Pneumatic Isolation DAMPER PAH-DP-36B	no
1-RC-CP-110	PRESSURIZER HTR POWER CONTROLLER	no
1-RC-CP-388	PRESS HTR CONTROLLER MON	no
1-RC-PCV-455-A	PZR SPRAY VALVE Train A	no
1-RC-PCV-455-B	PZR SPRAY VALVE Train B	no
1-RC-V-122	PORV Block Valve MOV RC-V-122	no
1-RC-V-124	PORV Block Valve MOV RC-V-124	no
1-RC-V-22	RHR Hot Leg 1 Suction MOV RC-V-22	no
1-RC-V-23	RHR Hot Leg 1 Suction MOV RC-V-23	no
1-RC-V-87	RHR Hot Leg 4 Suction MOV RC-V-87	no
1-RC-V-88	RHR Hot Leg 4 Suction MOV RC-V-88	no
1-RH-E-9-A	HEAT EXCHANGER RH-E-9A	no
1-RH-E-9-B	HEAT EXCHANGER RH-E-9B	YES
1-RH-FCV-610	RHR Miniflow Recirc MOV RH-FCV-610	no
1-RH-FCV-611	RHR Miniflow Recirc MOV RH-FCV-611	YES
1-RH-FCV-618	RHR HX A Bypass Valve RH-FCV-618	no
1-RH-FCV-619	RHR HX B Bypass Valve RH-FCV-619	YES
1-RH-HCV-606	RHR AOV RH-HCV-606	no
1-RH-HCV-607	RHR AOV RH-HCV-607	YES
1-RH-P-8-A	RHR PUMP RH-P-8A	no
1-RH-P-8-B	RHR PUMP RH-P-8B	YES
1-RH-V-14	RHR Train A Discharge MOV RH-V-14	no
1-RH-V-21	RHR Cross-connect V21	YES
1-RH-V-22	RHR Cross-connect V22	no
1-RH-V-26	RHR Train B Discharge MOV RH-V-26	no
1-RH-V-32	RHR HL Isolation MOV	no
1-RH-V-35	RHR/HP Crosstie MOV RH-V-35	no
1-RH-V-36	RHR/HP Crosstie MOV RH-V-36	YES
1-RH-V-70	RHR HL Isolation MOV	no
1-RMW-V-30	Penetration X-36 AOV RMW-V-30	no
1-SB-V-10	SG Blowdown Isolation AOV SB-V-10	no
1-SB-V-11	SG Blowdown Isolation AOV SB-V-11	no
1-SB-V-12	SG Blowdown Isolation AOV SB-V-12	no
1-SB-V-9	SG Blowdown Isolation AOV SB-V-9	no
1-SEPS-CP-1	SEPS BUS 5 AND 6 TRANSFER CONTROL PANEL	no
1-SEPS-CP-2	SEPS REMOTE MONITOR AND CONTROL PANEL	no
1-SEPS-CP-3	SEPS SWITCHGEAR ENCLOSURE	no
1-SEPS-CP-4	SEPS DIGITAL MASTER CONTROL PANEL	no
1-SEPS-CP-5	1-SEPS-DG-2-A	no
1-SEPS-CP-6	1-SEPS-DG-2-B SEPS DIESEL ENCLOSURE 2B	no
1-SEPS-CP-7	SEPS LOAD BANK CONTROLLERDIGITAL MASTER CONTROL Panel	no
1-SEPS-CP-8	SEPS GROUND DETECTION PANEL	no
1-SF-E-15-A	SPENT FUEL POOL HX A	no
1-SF-E-15-B	SPENT FUEL POOL HX B	YES
1-SF-E-15-C	SPENT FUEL POOL HT. EXCH.	no

Tag ID	Component Description	SWEL?
1-SF-P-10-A	SPNT FUEL POOL PUMP A	no
1-SF-P-10-B	SPNT FUEL POOL PUMP B	YES
1-SF-P-10-C	SPNT FUEL POOL PUMP C	no
1-SI-P-6-A	SI PUMP SI-P-6A	no
1-SI-P-6-B	SI PUMP SI-P-6B	YES
1-SI-TK-9-A	Accumulator TANK SI-TK-9A	YES
1-SI-TK-9-B	Accumulator TANK SI-TK-9B	no
1-SI-TK-9-C	Accumulator TANK SI-TK-9C	no
1-SI-TK-9-D	Accumulator TANK SI-TK-9D	no
1-SI-V-102	SI Hot Leg Isolation MOV V102	no
1-SI-V-111	SI Cold Leg Isolation MOV V111	YES
1-SI-V-112	SI Cold Leg Isolation MOV V112	no
1-SI-V-114	SI Common CL Isolation MOV V114	no
1-SI-V-138	CS CL Isolation MOV SI-V-138	no
1-SI-V-139	CS CL Isolation MOV SI-V-139	no
1-SI-V-17	Accumulator CL#2 MOV SI-V-17	no
1-SI-V-3	Accumulator CL#1 MOV SI-V-3	YES
1-SI-V-32	Accumulator CL#3 MOV SI-V-32	no
1-SI-V-47	Accumulator CL#4 MOV SI-V-47	no
1-SI-V-77	SI Hot Leg Isolation MOV V77	no
1-SI-V-89	SI-B Recirculation MOV SI-V-89	no
1-SI-V-90	SI-A Recirculation MOV SI-V-90	no
1-SI-V-93	SI Recirculation Common MOV SI-V-93	no
1-SWA-DP-65	CT SWGR Room Relief DAMPER SWA-DP-65	YES
1-SWA-DP-66	CT SWGR Room Relief DAMPER SWA-DP-66	YES
1-SWA-FN-63	CT SWGR Train B FAN SWA-FN-63	YES
1-SWA-FN-64	CT SWGR Train A FAN SWA-FN-64	no
1-SWA-FN-70	CT Pump Area Train B FAN SWA-FN-70	no
1-SWA-FN-71	CT Pump Area Train A FAN SWA-FN-71	no
1-SWA-TSH-5666	Temperature Switch	YES
1-SWA-TSH-5667	Temperature Switch	no
1-SWA-TSH-5668	Local temperature Switch	YES
1-SWA-TSH-5669	Temperature Switch	no
1-SW-CP-82-A	SR-2A SW TRAVLNG SCREEN PANEL	no
1-SW-CP-82-B	SR-2B SW TRAVLNG SCREEN PANEL	no
1-SW-FN-51-A	SW Cooling Tower FAN SW-FN-51A	no
1-SW-FN-51-B	SW Cooling Tower FAN SW-FN-51B	no
1-SW-P-110-A	SW Cooling Tower PUMP SW-P-110A	no
1-SW-P-110-B	SW Cooling Tower PUMP SW-P-110B	YES
1-SW-P-41-A	SW PUMP SW-P-41A	no
1-SW-P-41-B	SW PUMP SW-P-41B	no
1-SW-P-41-C	SW PUMP SW-P-41C	no
1-SW-P-41-D	SW PUMP SW-P-41D	no
1-SW-V-139	CT Spray Train A Bypass VALVE	no
1-SW-V-140	CT Spray Train B Bypass VALVE	no
1-SW-V-15	SW-TO-PCC HX Outlet MOV SW-V-15	no
1-SW-V-16	DG-E-42A Outlet Isolation AOV SW-V-16	no
1-SW-V-17	SW-TO-PCC HX Outlet MOV SW-V-17	no
1-SW-V-18	DG-E-42B Outlet Isolation AOV SW-V-18	no
1-SW-V-19	SW Return MOV SW-V-19	YES
1-SW-V-2	SW Pump P-41A Discharge MOV SW-V-2	no
1-SW-V-20	SW Return MOV SW-V-20	YES
1-SW-V-22	SW Pump P-41C Discharge MOV SW-V-22	no
1-SW-V-23	SW Cooling Tower Return MOV SW-V-23	YES

Tag ID	Component Description	SWEL?
1-SW-V-25	SW Cooling Tower Pump P-110B Discharge MOV SW-V-25	YES
1-SW-V-26	SW Cooling Tower Pump P-110B BYPASS MOV SW-V-26	YES
1-SW-V-27	SW Cooling Tower Pump P-110B Test Recirc MOV SW-V-27	no
1-SW-V-29	SW Pump P-41B Discharge MOV SW-V-29	no
1-SW-V-31	SW Pump P-41D Discharge MOV SW-V-31	no
1-SW-V-34	SW Cooling Tower Return MOV SW-V-34	YES
1-SW-V-4	SW Secondary Isolation MOV SW-V-4	no
1-SW-V-5	SW Secondary Isolation MOV SW-V-5	no
1-SW-V-54	SW Cooling Tower Pump P-110A Discharge MOV SW-V-54	no
1-SW-V-55	SW Cooling Tower Pump P-110A Bypass MOV SW-V-55	no
1-SW-V-56	SW Cooling Tower Pump P-110A Test Recirc MOV SW-V-56	no
1-SW-V-74	SW Return Isolation SWV74	YES
1-SW-V-76	SW Return Isolation SWV76	YES
1-VG-FV-1661	Penetration X-17 Isolation VALVE VG-FV-1661	no
1-VG-FV-1712	Penetration X-17 Isolation VALVE VG-FV-1712	no
1-WLD-FV-8330	Penetration X-34 Isolation VALVE WLD-FV-8330	no
1-WLD-FV-8331	Penetration X-34 Isolation VALVE WLD-FV-8331	no
2-SW-FN-51-B	SW Cooling Tower FAN 2SW-FN-51B	no

C

Seismic Walkdown Checklists (SWCs)

Table C-1. Summary of Seismic Walkdown Checklists

- Anchorage Configuration Confirmation Performed

	Tag ID	Component Description	SWEL #	Building Name	Room IDs	Equipment Class	Page #
##	1-EDE-MCC-641	MCC E641	SWEL-01	SW Cooling Tower	CT101	(01) 480V MCC	C-5
	1-EDE-US-E64	480V BUS E64	SWEL-01	SW Cooling Tower	CT101	(02) Low voltage SWGR	Deferred
##	1-EDE-X-5-H	4KV to 480V TRANSFORMER X-5H (E6 to E64)	SWEL-01	SW Cooling Tower	CT101	(04) transformer	C-8
	1-SWA-TSH-5668	Local temperature Switch	SWEL-01	SW Cooling Tower	CT101	(19) temperature device	C-11
	1-SWA-DP-65	CT SWGR Room Relief DAMPER SWA-DP-65	SWEL-01	SW Cooling Tower	CT202	(07) pneumatic damper	C-14
	1-SWA-DP-66	CT SWGR Room Relief DAMPER SWA-DP-66	SWEL-01	SW Cooling Tower	CT202	(07) pneumatic damper	C-17
##	1-SWA-FN-63	CT SWGR Train B FAN SWA-FN-63	SWEL-01	SW Cooling Tower	CT202	(09) fan	C-20
	1-SWA-TSH-5666	Temperature Switch	SWEL-01	SW Cooling Tower	CT202	(19) temperature device	C-23
##	1-SW-P-110-B	SW Cooling Tower PUMP SW-P-110B	SWEL-01	SW Cooling Tower	CT202	(06) pump (vertical drive)	C-26
	1-SW-V-25	SW Cooling Tower Pump P-110B Discharge MOV SW-V-25	SWEL-01	SW Cooling Tower	CT202	(08) MOV	C-29
	1-SW-V-26	SW Cooling Tower Pump P-110B BYPASS MOV SW-V-26	SWEL-01	SW Cooling Tower	CT202	(08) MOV	C-32
##	1-DG-P-38-B	DG-1B Fuel Oil Transfer Pump	SWEL-02	DG Bldg Train B	DG102	(05) motor-driven pump	C-35
##	1-DG-TK-26-B	DG-1B Fuel Oil Storage TANK DG-TK-26B	SWEL-02	DG Bldg Train B	DG102	(21) tank	C-38
##	1-DG-C-2-B	DG-1B Starting Air Compressor Skid	SWEL-02	DG Bldg Train B	DG202	(12) compressor	C-41
##	1-DG-CP-37	DG-1B TERM BOX ELEC CONTROL PNL	SWEL-02	DG Bldg Train B	DG202	(20) control panel	C-44
##	1-DG-CP-76-A	DG-1B CONTROL PANEL A	SWEL-02	DG Bldg Train B	DG202	(20) control panel	C-47
	1-DG-CP-907-B	DG-1B Temperature Control Panel	SWEL-02	DG Bldg Train B	DG202	(20) control panel	C-50
##	1-DG-DG-1-B	DG-1B	SWEL-02	DG Bldg Train B	DG202	(17) diesel generator	C-53
	1-DG-E-41-B	DG Lube Oil Heat Exchanger 41-B	SWEL-02	DG Bldg Train B	DG202	(21) heat exchanger	C-56
##	1-DG-P-117-B	DG-1B Motor Driven Aux LUBE OIL PUMP	SWEL-02	DG Bldg Train B	DG202	(05) motor-driven pump	C-59

Tag ID	Component Description	SWEL #	Building Name	Room IDs	Equipment Class	Page #
1-DG-P-118-B	DG-1B Motor Driven Aux FUEL OIL PUMP	SWEL-02	DG Bldg Train B	DG202	(05) motor-driven pump	C-62
1-DG-TCV-7-B1	DG-TCV-7-B1	SWEL-02	DG Bldg Train B	DG202	(07) AOV	C-65
1-DG-V-11-B	DG-V-11-B SUP ISOL TO JACKET COOLANT FROM P-122B DISCH	SWEL-02	DG Bldg Train B	DG202	(07) AOV	C-68
1-DG-V-9-B	DG-V-9-B Supply Isolation to Air Cooler system from P-122B fail	SWEL-02	DG Bldg Train B	DG202	(07) AOV	C-71
## 1-EDE-MCC-611	MCC E611	SWEL-02	DG Bldg Train B	DG202	(01) 480V MCC	C-74
1-MM-CP-450-B	RSS DISABLE PNL TRAIN B	SWEL-02	DG Bldg Train B	DG202	(20) control panel	C-78
## 1-DG-TK-78-B	DG-1B Fuel Oil Day TANK DG-TK-78B	SWEL-02	DG Bldg Train B	DG305	(21) tank	C-81
1-DAH-FN-25-B	DG Supply FAN DAH-FN-25B	SWEL-02	DG Bldg Train B	DG308	(09) fan	C-84
1-DG-CP-80	EMERGENCY POWER SEQUENCER DG1B	SWEL-03	CB Essential SWGR Train B	CB105	(20) control panel	C-87
## 1-EDE-BC-1-B	BATTERY CHARGER EDE-BC-1B	SWEL-03	CB Essential SWGR Train B	CB105	(16) battery charger	C-90
## 1-EDE-I-1-F	INVERTER EDE-I-1F	SWEL-03	CB Essential SWGR Train B	CB105	(16) inverter	C-93
## 1-EDE-MCC-612	MCC E612	SWEL-03	CB Essential SWGR Train B	CB105	(01) 480V MCC	C-96
1-EDE-PP-112-B	DC Power Panel 112B	SWEL-03	CB Essential SWGR Train B	CB105	(14) power panel	C-100
1-EDE-PP-1-B	120V AC POWER PANEL (EDE-PP-1B)	SWEL-03	CB Essential SWGR Train B	CB105	(14) power panel	C-103
1-EDE-SWG-6	4KV BUS E6	SWEL-03	CB Essential SWGR Train B	CB105	(02) Low voltage SWGR	Deferred
## 1-EDE-SWG-11-B	125V DC BUS 11B	SWEL-03	CB Essential SWGR Train B	CB105	(02) 125 VDC SWGR	C-106
1-EDE-US-61	480V BUS E61	SWEL-03	CB Essential SWGR Train B	CB105	(02) Low voltage SWGR	Deferred
## 1-EDE-X-5-C	4KV to 480V TRANSFORMER X-5C (E6 to E61)	SWEL-03	CB Essential SWGR Train B	CB105	(04) transformer	C-110
1-MM-CP-108-B	REM SAFE SHTDWN CONTROL PANEL	SWEL-03	CB Essential SWGR Train B	CB105	(20) control panel	C-113
## 1-EDE-B-1-B	BATTERY EDE-B-1B	SWEL-03	CB Essential SWGR Train B	CB106	(15) battery	C-116
1-EPA-FN-47-B	EFW Train B Supply FAN EPA-FN-47B	SWEL-04	Emergency Feedwater Pumphouse	EF301	(09) fan	C-119
1-EPA-TSH-5431	EPA Fan Temperature Control	SWEL-04	Emergency Feedwater Pumphouse	EF301	(19) temperature device	C-122
1-FW-FV-4214-A	FW FV4214A	SWEL-04	Emergency Feedwater Pumphouse	EF301	(08) MOV	C-125
1-FW-FV-4214-B	FW FV4214B	SWEL-04	Emergency Feedwater Pumphouse	EF301	(08) MOV	C-128
1-FW-FV-4224-A	FW FV4224A	SWEL-04	Emergency Feedwater Pumphouse	EF301	(08) MOV	C-131
1-FW-FV-4224-B	FW FV4224B	SWEL-04	Emergency Feedwater Pumphouse	EF301	(08) MOV	C-134
## 1-FW-P-37-B	Motor Driven PUMP FW-P-37B	SWEL-04	Emergency Feedwater Pumphouse	EF301	(05) motor-driven pump	C-137

Tag ID	Component Description	SWEL #	Building Name	Room IDs	Equipment Class	Page #
1-FW-V-347	MD EFW Pump Recirc Valve FWW347	SWEL-04	Emergency Feedwater Pumphouse	EF301	(08) MOV	C-140
## 1-MM-IR-50	EMERG FWP HSE INSTRUMENT RACK	SWEL-04	Emergency Feedwater Pumphouse	EF301	(18) instrument rack	C-143
1-MSD-V-45	Steam Drain MOV MSD-V-45	SWEL-05	MS/FW Pipe Chase (East)	MF206	(08) MOV	C-146
1-MSD-V-46	Steam Drain MOV MSD-V-46	SWEL-05	MS/FW Pipe Chase (East)	MF206	(08) MOV	C-149
1-FW-V-39	FW Isolation pneum valve V39	SWEL-05	MS/FW Pipe Chase (East)	MF304	(07) AOV	C-152
1-FW-V-48	FW Isolation pneum valve V48	SWEL-05	MS/FW Pipe Chase (East)	MF304	(07) AOV	C-155
1-MS-V-394	SG Steam Supply to Turbine Driven EFW AOV MS-V-394	SWEL-05	MS/FW Pipe Chase (East)	MF304	(07) AOV	C-158
1-MS-PV-3002	ASDV-B RELIEF VALVE MS-PV-3002	SWEL-05	MS/FW Pipe Chase (East)	MF403	(07) AOV	C-161
1-MS-V-88	MSIV-B MS-V-88	SWEL-05	MS/FW Pipe Chase (East)	MF403	(07) electro-hydraulic valve	C-164
## 1-CBS-P-9-B	CBS PUMP CBS-P-9B	SWEL-06	RHR Equipment Vault Train B	RV102	(05) motor-driven pump	C-167
## 1-RH-P-8-B	RHR PUMP RH-P-8B	SWEL-06	RHR Equipment Vault Train B	RV104	(06) pump (vertical drive)	C-170
1-CBS-V-51	SI Pump P-6B Suction MOV CBS-V-51	SWEL-06	RHR Equipment Vault Train B	RV202	(08) MOV	C-173
1-RH-V-36	RHR/HP Crosstie MOV RH-V-36	SWEL-06	RHR Equipment Vault Train B	RV202	(08) MOV	C-176
## 1-SI-P-6-B	SI PUMP SI-P-6B	SWEL-06	RHR Equipment Vault Train B	RV202	(05) motor-driven pump	C-179
1-SI-V-111	SI Cold Leg Isolation MOV V111	SWEL-06	RHR Equipment Vault Train B	RV202	(08) MOV	C-182
1-CBS-E-16-B	CBS HX CBS-E-16B	SWEL-06	RHR Equipment Vault Train B	RV302	(21) heat exchanger	C-185
1-CC-V-266	PCC to CBS HX E-16B Isolation MOV CC-V-266	SWEL-06	RHR Equipment Vault Train B	RV302	(08) MOV	C-188
## 1-RH-E-9-B	HEAT EXCHANGER RH-E-9B	SWEL-06	RHR Equipment Vault Train B	RV302	(21) heat exchanger	C-191
1-CC-V-272	PCC MOV CC-V-272	SWEL-06	RHR Equipment Vault Train B	RV304	(08) MOV	C-194
1-RH-FCV-611	RHR Miniflow Recirc MOV RH-FCV-611	SWEL-06	RHR Equipment Vault Train B	RV304	(08) MOV	C-197
1-CBS-V-5	RWST Train B Isolation MOV CBS-V-5	SWEL-06	RHR Equipment Vault Train B	RVST2	(08) MOV	C-200
1-RH-FCV-619	RHR HX B Bypass Valve RH-FCV-619	SWEL-06	RHR Equipment Vault Train B	RVST2	(07) AOV	C-203
1-RH-HCV-607	RHR AOV RH-HCV-607	SWEL-06	RHR Equipment Vault Train B	RVST2	(07) AOV	C-206
1-RH-V-21	RHR Cross-connect V21	SWEL-06	RHR Equipment Vault Train B	RVST2	(08) MOV	C-209
## 1-CBS-TK-8	RWST TANK CBS-TK-8	SWEL-07	Refueling Water Storage Tank	TF201	(21) tank	C-212
1-CS-LCV-112-D	CS A Pump Suction MOV CS-LCV-112D	SWEL-07	Refueling Water Storage Tank	TF201	(08) MOV	C-215
1-CS-LCV-112-E	CS B Pump Suction MOV CS-LCV-112E	SWEL-07	Refueling Water Storage Tank	TF201	(08) MOV	C-218
## 1-CC-E-17-B	TRAIN B HX E-17B	SWEL-08	PAB 25' Elevation	PB401	(21) heat exchanger	C-221
1-CC-TV-2271-1	PCC Train B HX TV-2271-1	SWEL-08	PAB 25' Elevation	PB401	(07) AOV	C-224

Tag ID	Component Description	SWEL #	Building Name	Room IDs	Equipment Class	Page #
1-CC-TV-2271-2	PCC Train B HX TV-2271-2	SWEL-08	PAB 25' Elevation	PB401	(07) AOV	C-227
1-SW-V-19	SW Return MOV SW-V-19	SWEL-08	PAB 25' Elevation	PB401	(08) MOV	C-230
1-SW-V-20	SW Return MOV SW-V-20	SWEL-08	PAB 25' Elevation	PB401	(08) MOV	C-233
1-SW-V-23	SW Cooling Tower Return MOV SW-V-23	SWEL-08	PAB 25' Elevation	PB401	(08) MOV	C-236
1-SW-V-34	SW Cooling Tower Return MOV SW-V-34	SWEL-08	PAB 25' Elevation	PB401	(08) MOV	C-239
## 1-CC-P-11-B	PCC PUMP CC-P-11B	SWEL-08	PAB 25' Elevation	PB404	(05) motor-driven pump	C-242
## 1-CC-P-11-D	PCC PUMP CC-P-11D	SWEL-08	PAB 25' Elevation	PB404	(05) motor-driven pump	C-245
1-CC-TE-2271	PCC Train B Temperature ELEMENT CC-TE-2271	SWEL-08	PAB 25' Elevation	PB404	(19) temperature device	C-248
1-CC-TE-2297	PCC Train B Temperature ELEMENT CC-TE-2297	SWEL-08	PAB 25' Elevation	PB404	(19) temperature device	C-251
## 1-MM-IR-93	PAB INST RACK	SWEL-08	PAB 25' Elevation	PB404	(18) instrument rack	C-254
## 1-CS-P-3-A	Boric Acid Tank PUMP CS-P-3A	SWEL-08	PAB 25' Elevation	PB411	(05) motor-driven pump	C-257
## 1-CS-TK-4-A	Boric Acid Tank 4A	SWEL-08	PAB 25' Elevation	PB411	(21) tank	C-260
## 1-CS-TK-4-B	Boric Acid Tank 4B	SWEL-08	PAB 25' Elevation	PB411	(21) tank	C-263
1-SW-V-74	SW Return Isolation SWV74	SWEL-08	PAB 25' Elevation	PB412	(08) MOV	C-266
1-SW-V-76	SW Return Isolation SWV76	SWEL-08	PAB 25' Elevation	PB412	(08) MOV	C-269
1-EAH-FN-180-B	CCP Cubicle Return FAN EAH-FN-180B	SWEL-09	Containment Enclosure Ventilation Area	EV101	(09) fan	C-272
1-MM-IR-94	PAB INST RACK	SWEL-09	Containment Enclosure Ventilation Area	EV101	(18) instrument rack	C-275
1-CC-P-322-A	Thermal Barrier Train B PUMP P322B	SWEL-10	Containment	CI205	(05) motor-driven pump	C-278
1-CC-V-176	Containment Supply Isolation AOV (inside) CC-V-176	SWEL-10	Containment	CI301	(07) AOV	C-281
1-MM-IR-10-A	CS INST RACK	SWEL-10	Containment	CI205	(18) instrument rack	C-284
1-SI-TK-9-A	Accumulator TANK SI-TK-9A	SWEL-10	Containment	CI205	(21) tank	C-287
1-SI-V-3	Accumulator CL#1 MOV SI-V-3	SWEL-10	Containment	CI205	(08) MOV	C-290
## 1-SF-P-10-B	SPNT FUEL POOL PUMP B	SWEL-11	Fuel Storage Bldg	FB107	(05) motor-driven pump	C-293
1-CC-V-445	Spent Fuel Pool HX Isolation AOV CC-V-445	SWEL-11	Fuel Storage Bldg	FB202	(07) AOV	C-296
## 1-SF-E-15-B	SPENT FUEL POOL HX B	SWEL-11	Fuel Storage Bldg	FB202	(21) heat exchanger	C-299
## 1-FAH-FN-11-B	EXHAUST FAN FOR F-74 FN-11B	SWEL-11	Fuel Storage Bldg	FB301	(09) fan	C-302

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-641

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E641

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 22.00 ft, CT101

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-641

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E641

See base weld to embedment; size 3/16 or better, weld length >= 2", spacing <= 19". Matches drawing 9763-F-300209.

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

Yes, pendulum light may swing + crack glass but not a credible hazard.

Adjacent heater & emergency light very 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 Yes
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-641

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E641

could adversely affect the safety functions of the equipment?

Second walkdown: Opened cubicles C15, E55, 3 empty spares & Aux relay panel and one cable chase. No concerns.

Note: For this MCC cabinet, extensive sample inspections were performed of those breaker cubicles that could be inspected with the MCC energized. Based on this extensive sampling and the lack of issues discovered during this inspection, this MCC will be considered adequately inspected and will not be included in the deferred list.

Comments

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	_____		_____
	Scott Kenrick		11/05/12
	_____		_____
**Evaluated by:	Walter Djordjevic	Date:	11/05/12
	_____		_____

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID

No.: 1-EDE-X-5-H

Equipment

Class: (4) Transformers

Equipment

Description: 4KV to 480V TRANSFORMER X-5H (E6 to E64)

Project: Seabrook SWEL

Location (Bldg, Elev,

Room/Area): CT, 22.00 ft, CT101

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

See visual cracks in floor continuing to pad; since anchorage is weld to anchored embedments, not considered significant. Per 9763-F-101698, anchor bolts for embedment go thru pad and down into the floor.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID

No.:

1-EDE-X-5-H

Equipment

Class:

(4) Transformers

Equipment

Description:

4KV to 480V TRANSFORMER X-5H (E6 to E64)

5. Is the anchorage configuration consistent with plant documentation? No
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)

See welds at 4 corners consistent with drawing 9763-F-300202, however weld length is less than 4" for some locations. Found minimum weld length is about 3.75". However, the weld length is judged to be adequate to assure cabinet anchorage for the design basis earthquake based on the low seismic demand of the Cooling Tower Elevation 22'-0".

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

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID

No.: 1-EDE-X-5-H

Equipment

Class: (4) Transformers

Equipment

Description: 4KV to 480V TRANSFORMER X-5H (E6 to E64)

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-TSH-5668

Equipment Class: (19) Temperature Sensors

Equipment Description: Local temperature Switch

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 22.00 ft, CT101

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-TSH-5668

Equipment Class: (19) Temperature Sensors

Equipment Description: Local temperature Switch

an anchorage configuration verification is required.)

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
Overhead light OK; can swing but no hard impact (clearance).
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.: 1-SWA-TSH-5668

Equipment Class: (19) Temperature Sensors

Equipment Description: Local temperature Switch

Comments

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-DP-65

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CT SWGR Room Relief DAMPER SWA-DP-65

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 46.00 ft, CT202

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-DP-65

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CT SWGR Room Relief DAMPER SWA-DP-65

an anchorage configuration verification is required.)

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.: 1-SWA-DP-65

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CT SWGR Room Relief DAMPER SWA-DP-65

Comments

Next to FN-63

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-DP-66

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CT SWGR Room Relief DAMPER SWA-DP-66

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 46.00 ft, CT202

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 |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-DP-66

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CT SWGR Room Relief DAMPER SWA-DP-66

-
- | | |
|---|----------------|
| 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 | Yes |
|--|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-DP-66

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CT SWGR Room Relief DAMPER SWA-DP-66

could adversely affect the safety functions of the equipment?

Similar to DP-65

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-FN-63

Equipment Class: (9) Fans

Equipment Description: CT SWGR Train B FAN SWA-FN-63

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 46.00 ft, CT202

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
Two anchors not plumb; judged not significant issue for capacity.

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-FN-63

Equipment Class: (9) Fans

Equipment Description: CT SWGR Train B FAN SWA-FN-63

an anchorage configuration verification is required.)

See (2) x 3/8 anchors per pedestal, 4 pedestals. Matches drawing 9763-F-01704.

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

Lines have sufficient slack for spring isolators.

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.: 1-SWA-FN-63

Equipment Class: (9) Fans

Equipment Description: CT SWGR Train B FAN SWA-FN-63

See apparently overloaded springs, two on north side. Not a significant concern for seismic load path.

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-TSH-5666

Equipment Class: (19) Temperature Sensors

Equipment Description: Temperature Switch

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 46.00 ft, CT202

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>Unistrut anchored to concrete column.</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 |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-TSH-5666

Equipment Class: (19) Temperature Sensors

Equipment Description: Temperature Switch

-
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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SWA-TSH-5666

Equipment Class: (19) Temperature Sensors

Equipment Description: Temperature Switch

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-P-110-B

Equipment Class: (6) Vertical Pumps

Equipment Description: SW Cooling Tower PUMP SW-P-110B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 46.00 ft, CT202

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
See double-nuts.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes
Mild rust on anchor, more sign on baseplate but this is expected to be very thick. Baseplate rust is a long-term maintenance issue tracked under normal plant procedures.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-P-110-B

Equipment Class: (6) Vertical Pumps

Equipment Description: SW Cooling Tower PUMP SW-P-110B

See some surface cracks on south side. Not a significant concern with a deeply embedded CIP anchor.

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

See (12) x1-1/4 CIP anchors w/ double nuts. Matches drawing 9763-F-101704.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-P-110-B

Equipment Class: (6) Vertical Pumps

Equipment Description: SW Cooling Tower PUMP SW-P-110B

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

Normal corrosion of baseplate address by plant Structural Monitoring Program

Comments

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-25

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

Equipment Description: SW Cooling Tower Pump P-110B Discharge MOV SW-V-25

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 46.00 ft, CT202

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-25

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

Equipment Description: SW Cooling Tower Pump P-110B Discharge MOV SW-V-25

an anchorage configuration verification is required.)

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

Horizontal gap to handrail ~ 5¼"; vertical gap to gage 2½" OK. Gaps OK for shake space since pipe is very well supported.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-25

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

Equipment Description: SW Cooling Tower Pump P-110B Discharge MOV SW-V-25

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-26

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

Equipment Description: SW Cooling Tower Pump P-110B BYPASS MOV SW-V-26

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CT, 46.00 ft, CT202

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-26

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

Equipment Description: SW Cooling Tower Pump P-110B BYPASS MOV SW-V-26

an anchorage configuration verification is required.)

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

*Horizontal gap to handrail is 5-1/4"; vertical gap to gage is 2-1/4".
Gaps OK for shake space since pipe is very well supported (similar to V-25, except as noted).*

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

Conduit gap to rail post ~1"; OK based on rigid piping support and flexible conduit. Noted that adjacent walkway is attached to column for along-walkway support.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-26

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

Equipment Description: SW Cooling Tower Pump P-110B BYPASS MOV SW-V-26

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-38-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Fuel Oil Transfer Pump

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, -16.00 ft, DG102

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

Hairline crack visible. Not a significant concern for capacity.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-38-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Fuel Oil Transfer Pump

-
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

See (6) x 3/4" CIP anchors. Matches drawing 9763-F-101392.

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

Overhead light OK.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-38-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Fuel Oil Transfer Pump

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TK-26-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG-1B Fuel Oil Storage TANK DG-TK-26B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, -16.00 ft, DG102

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TK-26-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG-1B Fuel Oil Storage TANK DG-TK-26B

(an anchorage configuration verification is required.)

See (24) x 1-1/2 CIP anchors each saddle, 48 total. Matches drawing 9763-F-101354.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TK-26-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG-1B Fuel Oil Storage TANK DG-TK-26B

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-C-2-B

Equipment Class: (12) Air Compressors

Equipment Description: DG-1B Starting Air Compressor

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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

Compressor is on anchored steel skid. Compressor is bolted/welded to skid.

Skid anchorage is verified. Skid anchorage is (8) x 1" CIP anchors (4 per side).

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-C-2-B

Equipment Class: (12) Air Compressors

Equipment Description: DG-1B Starting Air Compressor

Visual cracks are present but judged to be of minor significance.

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

Anchorage is (8) x 1" diameter anchors at base of steel skid into concrete floor. Matches drawing 9763-F-101392 (Detail 101392F).

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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-C-2-B

Equipment Class: (12) Air Compressors

Equipment Description: DG-1B Starting Air Compressor

Fire piping in area well supported.

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-37

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

Equipment Description: DG-1B TERM BOX ELEC CONTROL PNL

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-37

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

Equipment Description: DG-1B TERM BOX ELEC CONTROL PNL

an anchorage configuration verification is required.)

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
Large scaffold to east is well constructed and braced, OK.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Overhead crane tied off - OK. Lights are safety chained

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.: 1-DG-CP-37

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

Equipment Description: DG-1B TERM BOX ELEC CONTROL PNL

Opened door - no issues

Comments

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

Evaluated by: John O'Sullivan Date: 11/05/12

Scott Kenrick 11/05/12

**Evaluated by: Walter Djordjevic Date: 11/05/12

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-76-A

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

Equipment Description: DG-1B CONTROL PANEL A

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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

Visual cracks are present but judged to be of minor significance. Apparently surface cracks and may be paint cracks only.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-76-A

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

Equipment Description: DG-1B CONTROL PANEL A

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

*Verified >=3" welds per cabinet section each corner (front + rear).
Matches drawing 9763-F-300208.*

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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-76-A

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

Equipment Description: DG-1B CONTROL PANEL A

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

Verified 76A is bolted to CP-76B

Second walkdown:

Cabinets door opened for inspection. No adverse conditions.

Comments

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	_____ Scott Kenrick		_____ 11/05/12

**Evaluated by:	Walter Djordjevic	Date:	11/05/12
	_____		_____

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-907-B

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

Equipment Description: DG-1B TEMP CONTROL PNL

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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
Cabinet is mounted to a steel frame. Frame has two columns and each is anchored with four expansion anchors.

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-907-B

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

Equipment Description: DG-1B TEMP CONTROL PNL

an anchorage configuration verification is required.)

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.: 1-DG-CP-907-B

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

Equipment Description: DG-1B TEMP CONTROL PNL

Second Walkdown:

Cabinet opened. No issues or concerns.

Comments

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	_____		_____
	Scott Kenrick		11/05/12
	_____		_____
**Evaluated by:	Walter Djordjevic	Date:	11/05/12
	_____		_____

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-DG-1-B

Equipment Class: (17) Engine-Generators

Equipment Description: DG-1B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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

Visual cracks are present but judged to be of minor significance.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-DG-1-B

Equipment Class: (17) Engine-Generators

Equipment Description: DG-1B

an anchorage configuration verification is required.)

See (34) x 1-1/2 CIP anchors thru skid. Matches drawing 9763-F-101354.

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

Yes, overhead crane OK; see 1-DG-CP-37 SWC.

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

Lube oil lines have flexible connections. Air start piping was reviewed & judged OK

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.: 1-DG-DG-1-B

Equipment Class: (17) Engine-Generators

Equipment Description: DG-1B

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-E-41-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG Lube Oil Heat Exchanger 41-B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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

Item is supported off EDG skid; welded saddles.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-E-41-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG Lube Oil Heat Exchanger 41-B

-
- | | |
|---|----------------|
| 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 | Yes |
|--|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-E-41-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG Lube Oil Heat Exchanger 41-B

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-117-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Motor Driven Aux LUBE OIL PUMP

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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

Visual cracks are present but judged to be of minor significance.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-117-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Motor Driven Aux LUBE OIL PUMP

an anchorage configuration verification is required.)

See (6) x 3/4" CIP anchors. Matches drawing 9763-F-101392.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-117-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Motor Driven Aux LUBE OIL PUMP

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-118-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Motor Driven Aux FUEL OIL PUMP

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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 |

Note, pump is attached to EDG skid.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-118-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Motor Driven Aux FUEL OIL PUMP

-
- | | |
|---|----------------|
| 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 | Yes |
|--|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-P-118-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: DG-1B Motor Driven Aux FUEL OIL PUMP

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TCV-7-B1

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-TCV-7-B1

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TCV-7-B1

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-TCV-7-B1

an anchorage configuration verification is required.)

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.: 1-DG-TCV-7-B1

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-TCV-7-B1

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-V-11-B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-V-11-B SUP ISOL TO JACKET COOLANT FROM P-122B DISCH

Project: Seabrook SWEL

Location (Bldg, Elev, Room/Area): DG, 21.00 ft, DG202

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-V-11-B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-V-11-B SUP ISOL TO JACKET COOLANT FROM P-122B DISCH

an anchorage configuration verification is required.)

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.: 1-DG-V-11-B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-V-11-B SUP ISOL TO JACKET COOLANT FROM P-122B DISCH

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-V-9-B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-V-9-B Supply Isolation to Air Cooler system from P-122B fail

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-V-9-B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-V-9-B Supply Isolation to Air Cooler system from P-122B fail

an anchorage configuration verification is required.)

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.: 1-DG-V-9-B

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: DG-V-9-B Supply Isolation to Air Cooler system from P-122B fail

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-611

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E611

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 21.00 ft, DG202

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

*Visual cracks are present but judged to be of minor significance
(appear to be surface cracks)*

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-611

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E611

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

Anchorage is stitch welds to embedments at MCC base; size 3/16 or better. Welds are 2" long at each end of MCC line-up (2 places front, 2 places rear). Welds are 4" long at intersection of each MCC compartment (9 places front, 9 places rear), equal to 20" o/c.

Matches drawing 9763-F-300209.

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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-611

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E611

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

Second walkdown:

Cabinets opened for inspection as indicated below. No adverse conditions.

Opened all empty spares; Aux. relay panel (ED9); cubicle J3P; cubicle E47 (12 circuit) dist. panel; cubicle BE5.

Note: For this MCC cabinet, extensive sample inspections were performed of those breaker cubicles that could be inspected with the MCC energized. Based on this extensive sampling and the lack of issues discovered during this inspection, this MCC will be considered adequately inspected and will not be included in the deferred list.

Comments

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	Scott Kenrick		11/05/12
**Evaluated by:	Walter Djordjevic	Date:	11/05/12

**** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick**

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-CP-450-B

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

Equipment Description: RSS DISABLE PNL TRAIN B

Project: Seabrook SWEL

Location (Bldg, Elev, Room/Area): DG, 21.00 ft, DG202

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-CP-450-B

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

Equipment Description: RSS DISABLE PNL TRAIN B

an anchorage configuration verification is required.)

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 above is OK. See notes for 1-DG-CP-37.

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.: 1-MM-CP-450-B

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

Equipment Description: RSS DISABLE PNL TRAIN B

*Protective cage around panel w/ small clearance, (3/16" at front).
Judged OK because cage is stiff and low mass.*

Second walkdown

Opened Cabinet, no issues (cage was removed).

Comments

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

**Evaluated by: Walter Djordjevic

Date: 11/05/12

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TK-78-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG-1B Fuel Oil Day TANK DG-TK-78B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 51.00 ft, DG305

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 |

Visual cracks are present but judged to be of minor significance. No seen cracks through or near expansion anchors.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TK-78-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG-1B Fuel Oil Day TANK DG-TK-78B

-
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
- See (8) x 5/8 CIP anchors plus (4) x 3/4 expansion anchors. Matches
drawing 9763-F-101354.*
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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-TK-78-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: DG-1B Fuel Oil Day TANK DG-TK-78B

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DAH-FN-25-B

Equipment Class: (9) Fans

Equipment Description: DG Supply FAN DAH-FN-25B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): DG, 51.00 ft, DG308

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 |

Visual cracks are present but judged to be of minor significance (appear to be surface cracks).

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DAH-FN-25-B

Equipment Class: (9) Fans

Equipment Description: DG Supply FAN DAH-FN-25B

-
- | | |
|--|----------------|
| 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?

<i>No fire piping in the area.</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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DAH-FN-25-B

Equipment Class: (9) Fans

Equipment Description: DG Supply FAN DAH-FN-25B

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-80

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

Equipment Description: EMERGENCY POWER SEQUENCER DG1B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB105

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

*Visual cracks are present but judged to be of minor significance.
Appear to be surface cracks only.*

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-80

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

Equipment Description: EMERGENCY POWER SEQUENCER DG1B

-
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
*There is a 2" gap to CP-108-B, 3-3/4" gap to CP-204. Judged to be
acceptable for shake space.*
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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-DG-CP-80

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

Equipment Description: EMERGENCY POWER SEQUENCER DG1B

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

Second walkdown:

Opened rear 3 doors - no issues.

Comments

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

**Evaluated by: Walter Djordjevic

Date: 11/05/12

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-BC-1-B

Equipment Class: (16) Inverters

Equipment Description: BATTERY CHARGER EDE-BC-1B

Project: Seabrook SWEL

Location (Bldg, Elev, Room/Area): CB, 21.00 ft, CB105

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

Visual cracks in floor continuing into pad and appears related to steel/concrete interface at embedded channel; since anchorage is weld to anchored embedments, not considered significant. Per 9763-F-101698, anchor bolts for embedment go thru pad and down into the

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-BC-1-B

Equipment Class: (16) Inverters

Equipment Description: BATTERY CHARGER EDE-BC-1B

floor.

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

See base weld to embedments; (4) welds total each at inside edge (toe) of C6 base member. Each weld is about 2" long. Equals or exceeds requirement of drawing 9763-F-300208.

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

Connection to 1-EDE-SWG-11-B inspected and is OK.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-BC-1-B

Equipment Class: (16) Inverters

Equipment Description: BATTERY CHARGER EDE-BC-1B

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

Second walkdown:

Opened cabinet doors for inspection.

One of a dozen fasteners holding bottom cover panel not fully seated (minor issue, fixed at once).

Comments

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	_____		_____
	Scott Kenrick		11/05/12
	_____		_____

**Evaluated by:	Walter Djordjevic	Date:	11/05/12
	_____		_____

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-I-1-F

Equipment Class: (16) Inverters

Equipment Description: INVERTER EDE-I-1F

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB105

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

Visual cracks are present but judged to be of minor significance. Appear to be surface cracks only.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-I-1-F

Equipment Class: (16) Inverters

Equipment Description: INVERTER EDE-I-1F

an anchorage configuration verification is required.)

Anchorage is weld to embedded steel. The cabinet base is made of 8x4 tube steel sleepers and multiple welds are located at the ends of the tubes. Welding exceeds the required weld on 9763-F-300209.

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.: 1-EDE-I-1-F

Equipment Class: (16) Inverters

Equipment Description: INVERTER EDE-I-1F

OK - no loose internal fasteners

Comments

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

**Evaluated by: Walter Djordjevic

Date: 11/05/12

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-612

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E612

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB105

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

*Visual cracks are present but judged to be of minor significance.
Appear to be surface cracks only.*

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-612

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E612

an anchorage configuration verification is required.)

Anchorage is stitch welds to embedments at MCC base; size 3/16 or better. Welds are 2" long at each end of MCC line-up (2 places front, 2 places rear). Welds are 4" long at intersection of each MCC compartment, equal to 20" o/c.

Matches drawing 9763-F-300209.

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

Cable tray supports not a hazard based on clearance and support configuration.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-612

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E612

-
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

Second walkdown:

Cabinets opened for inspection as indicated below. No adverse conditions.

Front

Spare - Stab cables loose which is normal

Spare above DA5 - Cable chase adjacent to DA5

Spare adjacent to BF7

Spare below BC2 contains wiring harness, mylar insulating strip loose at bottom, OK

C2L cubicle (terminations tight)

Cubicle below C2L empty

B16 - not all screws used to secure insulations

Rear

Empty cubicle above BC7

Note: For this MCC cabinet, extensive sample inspections were performed of those breaker cubicles that could be inspected with the MCC energized. Based on this extensive sampling and the lack of issues discovered during this inspection, this MCC will be considered

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-MCC-612

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC E612

adequately inspected and will not be included in the deferred list.

Empty cubicle above B94

Auxiliary Relay Panel ED0

MCC Dist. Panel E48 (24 circuits)

Spare BV9 (not all fastener holes are filled by design)

Cable chase adjacent to B72

Spare below B86 (not all fasteners are filled by design)

Comments

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	_____		_____
	Scott Kenrick		11/05/12
	_____		_____

**Evaluated by:	Walter Djordjevic	Date:	11/05/12
	_____		_____

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-PP-112-B

Equipment Class: (14) Distribution Panels

Equipment Description: DC Power Panel 112B

Project: Seabrook SWEL

Location (Bldg, Elev, Room/Area): CB, 21.00 ft, CB105

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

Visual cracks are present but judged to be of minor significance. There are no cracks near HILTI's. Anchorage consists of both HILTI's and welds to embeds.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-PP-112-B

Equipment Class: (14) Distribution Panels

Equipment Description: DC Power Panel 112B

-
- | | |
|---|----------------|
| 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?

<i>Light above on unitstrut beam, OK</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 | Yes |
|--|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-PP-112-B

Equipment Class: (14) Distribution Panels

Equipment Description: DC Power Panel 112B

could adversely affect the safety functions of the equipment?

Second walkdown:

Opened cabinet, no issues (see circuit breakers).

Comments

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

**Evaluated by: Walter Djordjevic

Date: 11/05/12

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-PP-1-B

Equipment Class: (14) Distribution Panels

Equipment Description: 120V AC POWER PANEL (EDE-PP-1B)

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB105

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? No

Hairline crack through one HILTI. Strength reduction judged not to be significant given amount of anchorage for small panel. (HILTI's + welds to embeds).

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-PP-1-B

Equipment Class: (14) Distribution Panels

Equipment Description: 120V AC POWER PANEL (EDE-PP-1B)

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
-

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
Overhead light is rod hung. Not near the panel and not a hazard.
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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-PP-1-B

Equipment Class: (14) Distribution Panels

Equipment Description: 120V AC POWER PANEL (EDE-PP-1B)

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

Second Walkdown

Opened door, no issues (see circuit breakers).

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-SWG-11-B

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 125V DC BUS 11B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB105

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

Visual cracks are present but judged to be of minor significance. Appear to be surface cracks only.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-SWG-11-B

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 125V DC BUS 11B

an anchorage configuration verification is required.)

See base welds to embedments; weld length ≥ 6 " each cabinet corner in front and ≥ 6 " each cabinet corner in rear. Matches drawing 9763-F-300209.

Note: Front left cabinet was opened during second walkdown and welded anchorage was inspected.

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
Connection to EDE-BC-1B is OK.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-SWG-11-B

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 125V DC BUS 11B

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

Second Walkdown:

Cabinets opened for inspection as indicated below. No adverse conditions.

Cubicle DN3 - not all fastener locations are utilized (appears to be by design) - still has six bolts securing back panel.

1-EDE-B-10 (DN6) - properly racked in

Cubicle below DN6 - OK empty

Cubicle next to DN3 - OK empty

Cubicle DN4 - Brkr properly seated by 3/8" diameter bolts to enclosure cubicle

Cubicle DN5 - Brkr properly seated by 3/8" diameter bolts to enclosure cubicle OK

Cubicle DL5 - Brkr properly seated by 3/8" diameter bolts to enclosure cubicle OK

Cubicle DN7 - too tall can't confirm bottom internal anchorage but it has to be there

Cubicle DP2 - OK identical to DN4

Cubicle DN9 - OK identical to DN4

Cubicle DN0 - OK identical to DN4

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-SWG-11-B

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 125V DC BUS 11B

Cubicle DP1 - OK - bottom anchorage not visible

Cubicle DN8 - OK - one front lock washer is uneven because it is in the hole

2 spare cubicles below DN8 are empty

All four cubicle doors in rear opened

Comments

Comments

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

**Evaluated by: Walter Djordjevic

Date: 11/05/12

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-X-5-C

Equipment Class: (4) Transformers

Equipment Description: 4KV to 480V TRANSFORMER X-5C (E6 to E61)

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB105

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

Visual cracks are present in pad and floor but judged to be of minor significance. Appear to be surface cracks only.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-X-5-C

Equipment Class: (4) Transformers

Equipment Description: 4KV to 480V TRANSFORMER X-5C (E6 to E61)

an anchorage configuration verification is required.)

*See base weld to embedments; (4) x 4" long welds at corners.
Matches drawing 9763-F-300209.*

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-X-5-C

Equipment Class: (4) Transformers

Equipment Description: 4KV to 480V TRANSFORMER X-5C (E6 to E61)

could adversely affect the safety functions of the equipment?

Verified connections to adjacent panel E61 both front and back.

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-CP-108-B

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

Equipment Description: REM SAFE SHTDWN CONTROL PANEL

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB105

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

*Visual cracks are present but judged to be of minor significance.
Appear to be surface cracks only.*

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-CP-108-B

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

Equipment Description: REM SAFE SHTDWN CONTROL PANEL

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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-CP-108-B

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

Equipment Description: REM SAFE SHTDWN CONTROL PANEL

Other Adverse Conditions

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

No:

Impact loading is possible at top right edge of CP-108-B.

Between CP-108B and MCC-631, a steel shim appears wedged into the 3/8" wide gap near the top. It is welded to roof of CP-108-B (which is 96" high and shorter than adjacent MCC-631) but does not appear to be fastened to the MCC. Impact on MCC appears to be on a conduit entry box.

Unknown if above is a relay chatter issue. If CP-108-B does not contain essential relays then the concern may be dismissed. See CAP

Second walkdown:

Cabinets opened for inspection as indicated below. No adverse conditions

Removed 2 front panels exposing racks. No issues. Opened rear 3 doors GZ0, G25 and G2K - No issues. Cable bundled at bottom.

Comments

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	_____		_____
	Scott Kenrick		11/05/12
	_____		_____
**Evaluated by:	Walter Djordjevic	Date:	11/05/12
	_____		_____

** Internal inspection to answer question 11 concerning "other adverse conditions" performed by W. Djordjevic and S. Kenrick

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-B-1-B

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY EDE-B-1B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CB, 21.00 ft, CB106

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

Visual cracks are present but judged to be of minor significance.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-B-1-B

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY EDE-B-1B

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

See base weld to embedment; (2 side) x (4 welds/side) x 3" long weld at each short-direction support plane. Matches drawing 9763-F-300208.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EDE-B-1-B

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY EDE-B-1B

-
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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EPA-FN-47-B

Equipment Class: (9) Fans

Equipment Description: EFW Train B Supply FAN EPA-FN-47B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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
Fan is on steel frame in the overhead. Spring housings thru bolts to frame.

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
On O/H frame.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EPA-FN-47-B

Equipment Class: (9) Fans

Equipment Description: EFW Train B Supply FAN EPA-FN-47B

an anchorage configuration verification is required.)

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

Lines have good flexibility; as needed for sprung fan.

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.: 1-EPA-FN-47-B

Equipment Class: (9) Fans

Equipment Description: EFW Train B Supply FAN EPA-FN-47B

Fan is on spring housings; housings have seismic snubbers and are SC-I.

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EPA-TSH-5431

Equipment Class: (19) Temperature Sensors

Equipment Description: EPA Fan Temperature Control

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EPA-TSH-5431

Equipment Class: (19) Temperature Sensors

Equipment Description: EPA Fan Temperature Control

-
- | | | |
|----|--|----------------|
| 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>Service Air line nearby is not stiff but far enough away (6") for shake space.</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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EPA-TSH-5431

Equipment Class: (19) Temperature Sensors

Equipment Description: EPA Fan Temperature Control

-
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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4214-A

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

Equipment Description: FW FV4214A

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4214-A

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

Equipment Description: FW FV4214A

an anchorage configuration verification is required.)

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 is present around 4214-A and 4124-B valves. Scaffold has multiple brace points well distributed; no issues.

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

Temporary beams overhead (for rigging). Judged OK, see AWC for comments.

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

Fire piping main nearby - well supported. See AWC for comments.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4214-A

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

Equipment Description: FW FV4214A

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4214-B

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

Equipment Description: FW FV4214B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4214-B

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

Equipment Description: FW FV4214B

an anchorage configuration verification is required.)

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

See a 2-1/2" gap to insulated pipe. Judged to be acceptable for shake space. Piping is well supported.

Adjacent scaffold OK, see AWC for comments. Overhead temporary beams also OK.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4214-B

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

Equipment Description: FW FV4214B

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4224-A

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

Equipment Description: FW FV4224A

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4224-A

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

Equipment Description: FW FV4224A

an anchorage configuration verification is required.)

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

Rigid lights above.

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

Attached lines have good flexibility.

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.: 1-FW-FV-4224-A

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

Equipment Description: FW FV4224A

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4224-B

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

Equipment Description: FW FV4224B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-FV-4224-B

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

Equipment Description: FW FV4224B

an anchorage configuration verification is required.)

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.: 1-FW-FV-4224-B

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

Equipment Description: FW FV4224B

Comments

Comments : Next to A valve

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-P-37-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: Motor Driven PUMP FW-P-37B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-P-37-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: Motor Driven PUMP FW-P-37B

an anchorage configuration verification is required.)

See (8) x 3/4 diameter CIP bolts. Matches drawing 9763-F-101660 (anchor type B-38). Also see steel bearing plates as per 9763-F-101660 (Detail 101660A). Only the anchor bolts are credited for hold-down and shear in analysis (calculation EF-12).

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

Overhead trolley OK; trolley track not a collapse 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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-P-37-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: Motor Driven PUMP FW-P-37B

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-347

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

Equipment Description: MD EFW Pump Recirc Valve FWV347

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-347

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

Equipment Description: MD EFW Pump Recirc Valve FWV347

an anchorage configuration verification is required.)

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

Gap to wall conduit is > 3". Judged to be acceptable for shake space.

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

Overhead trolley track well supported and not a collapse hazard.

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.: 1-FW-V-347

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

Equipment Description: MD EFW Pump Recirc Valve FWV347

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-50

Equipment Class: (18) Instruments on Racks

Equipment Description: EMERG FWP HSE INSTRUMENT RACK

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EF, 27.00 ft, EF301

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-50

Equipment Class: (18) Instruments on Racks

Equipment Description: EMERG FWP HSE INSTRUMENT RACK

an anchorage configuration verification is required.)

Anchorage consists of welded pads, (6) places. Lower pad (shim) is 4.5" x 3.5" plate welded along two short sides to floor embed. Upper pad is foot of rack and is 3.5" square plate, welded along to opposite sides to lower plate. Anchorage matches calculation EF-12 sheet A8.

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

Gap between rack roof and adjacent TS support (at left side) is about 1". Judged to be acceptable for shake space since rack is very stiff side/side; it has side-side X-bracing in back plane.

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

Tubing at rear of rack OK.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-50

Equipment Class: (18) Instruments on Racks

Equipment Description: EMERG FWP HSE INSTRUMENT RACK

could adversely affect the safety functions of the equipment?

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MSD-V-45

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

Equipment Description: Steam Drain MOV MSD-V-45

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): MF, 3.00 ft, MF206

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MSD-V-45

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

Equipment Description: Steam Drain MOV MSD-V-45

-
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
- Operator and valve body supported from common lateral tube support.
Operator flange in contact with soft insulation which is not an issue.*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
- Overhead grating is positively secured.*
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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MSD-V-45

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

Equipment Description: Steam Drain MOV MSD-V-45

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MSD-V-46

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

Equipment Description: Steam Drain MOV MSD-V-46

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): MF, 3.00 ft, MF206

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MSD-V-46

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

Equipment Description: Steam Drain MOV MSD-V-46

an anchorage configuration verification is required.)

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

Operator and valve body supported from common lateral tube support.

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

Overhead grating is positively secured.

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.: 1-MSD-V-46

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

Equipment Description: Steam Drain MOV MSD-V-46

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-39

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: FW Isolation pneum valve V39

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): MF, 12.00 ft, MF304

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-39

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: FW Isolation pneum valve V39

an anchorage configuration verification is required.)

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 RF-1444A has incomplete tag but it is still seismically tied off using rigging beam and clamps - no 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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-39

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: FW Isolation pneum valve V39

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-48

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: FW Isolation pneum valve V48

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): MF, 12.00 ft, MF304

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 Not Applicable

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-48

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: FW Isolation pneum valve V48

an anchorage configuration verification is required.)

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 RF-1424A has incomplete tag but it is still seismically tied off using rigging beam and clamps - no 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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FW-V-48

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: FW Isolation pneum valve V48

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-V-394

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SG Steam Supply to Turbine Driven EFW AOV MS-V-394

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): MF, 12.00 ft, MF304

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-V-394

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SG Steam Supply to Turbine Driven EFW AOV MS-V-394

an anchorage configuration verification is required.)

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

Overhead grating is positively secured.

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

Scaffold PM-0335 is positively secured and Scaffold RF-1953 is positively secured.

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-V-394

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SG Steam Supply to Turbine Driven EFW AOV MS-V-394

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-PV-3002

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ASDV-B RELIEF VALVE MS-PV-3002

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): MF, 27.00 ft, MF403

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 Not Applicable

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-PV-3002

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ASDV-B RELIEF VALVE MS-PV-3002

an anchorage configuration verification is required.)

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

Adjacent chain fall is tied off.

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

Overhead crane is secured and cannot come off rails.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-PV-3002

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ASDV-B RELIEF VALVE MS-PV-3002

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

Operator is supported laterally.

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-V-88

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MSIV-B MS-V-88

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): MF, 27.00 ft, MF403

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-V-88

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MSIV-B MS-V-88

an anchorage configuration verification is required.)

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

Loose grating secured to scaffold by wire and tie wraps. Scaffold RF-0831 secured to steel platform and properly green tagged.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MS-V-88

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MSIV-B MS-V-88

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-P-9-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: CBS PUMP CBS-P-9B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, -61.00 ft, RV102

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

Mild surface oxidation on some anchors

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-P-9-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: CBS PUMP CBS-P-9B

-
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

Verified against Drwg 9763-F-101525

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-P-9-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: CBS PUMP CBS-P-9B

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-P-8-B

Equipment Class: (6) Vertical Pumps

Equipment Description: RHR PUMP RH-P-8B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, -61.00 ft, RV104

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

One small crack visible on NW support at SW corner of base plate (see markup of drwg 101566). The crack is adjudged a surface crack and will not diminish capacity of anchor.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-P-8-B

Equipment Class: (6) Vertical Pumps

Equipment Description: RHR PUMP RH-P-8B

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

Verified against Drwg 9763-F-101525 & -101566
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

Lighting support is ductile.
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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-P-8-B

Equipment Class: (6) Vertical Pumps

Equipment Description: RHR PUMP RH-P-8B

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-V-51

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

Equipment Description: SI Pump P-6B Suction MOV CBS-V-51

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, -50.00 ft, RV202

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-V-51

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

Equipment Description: SI Pump P-6B Suction MOV CBS-V-51

an anchorage configuration verification is required.)

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.: 1-CBS-V-51

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

Equipment Description: SI Pump P-6B Suction MOV CBS-V-51

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-V-36

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

Equipment Description: RHR/HP Crosstie MOV RH-V-36

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, -50.00 ft, RV202

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-V-36

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

Equipment Description: RHR/HP Crosstie MOV RH-V-36

an anchorage configuration verification is required.)

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

Chainfall secured to wall.

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

Overhead grating is clipped securely.

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.: 1-RH-V-36

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

Equipment Description: RHR/HP Crosstie MOV RH-V-36

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-P-6-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: SI PUMP SI-P-6B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, -50.00 ft, RV202

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-P-6-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: SI PUMP SI-P-6B

an anchorage configuration verification is required.)

Verified against Drwg 9763-F-101525

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

Chainfall secured to wall.

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

Overhead grating is clipped securely.

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.: 1-SI-P-6-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: SI PUMP SI-P-6B

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-V-111

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

Equipment Description: SI Cold Leg Isolation MOV V111

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, -50.00 ft, RV202

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 Not Applicable

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-V-111

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

Equipment Description: SI Cold Leg Isolation MOV V111

an anchorage configuration verification is required.)

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.: 1-SI-V-111

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

Equipment Description: SI Cold Leg Isolation MOV V111

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-E-16-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: CBS HX CBS-E-16B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 0.00 ft, RV302

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 |

Supported on structural steel.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-E-16-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: CBS HX CBS-E-16B

-
- | | |
|---|----------------|
| 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 | Yes |
|--|-----|

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-E-16-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: CBS HX CBS-E-16B

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-266

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

Equipment Description: PCC to CBS HX E-16B Isolation MOV CC-V-266

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 0.00 ft, RV302

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 Not Applicable

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-266

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

Equipment Description: PCC to CBS HX E-16B Isolation MOV CC-V-266

an anchorage configuration verification is required.)

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 RF-2561 is secured seismically to cable tray supports. No threat to valve.
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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-266

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

Equipment Description: PCC to CBS HX E-16B Isolation MOV CC-V-266

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-E-9-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: HEAT EXCHANGER RH-E-9B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 0.00 ft, RV302

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

One small hairline crack not at anchor. No issue. Two lateral top braces secured to plate by 4- 3/4" bolts. Plate is welded to embedded plate (in wall) by full length (4") welds on both sides.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-E-9-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: HEAT EXCHANGER RH-E-9B

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

Verified against Drwg 9763-F-101525

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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-E-9-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: HEAT EXCHANGER RH-E-9B

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-272

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

Equipment Description: PCC MOV CC-V-272

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 0.00 ft, RV304

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-272

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

Equipment Description: PCC MOV CC-V-272

an anchorage configuration verification is required.)

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 RF-2561A seismically tied off and braced. No 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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-272

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

Equipment Description: PCC MOV CC-V-272

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-FCV-611

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

Equipment Description: RHR Miniflow Recirc MOV RH-FCV-611

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 0.00 ft, RV304

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-FCV-611

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

Equipment Description: RHR Miniflow Recirc MOV RH-FCV-611

an anchorage configuration verification is required.)

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

Overhead grating is positively secured.

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.: 1-RH-FCV-611

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

Equipment Description: RHR Miniflow Recirc MOV RH-FCV-611

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-V-5

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

Equipment Description: RWST Train B Isolation MOV CBS-V-5

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 20.00 ft, RVST2

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-V-5

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

Equipment Description: RWST Train B Isolation MOV CBS-V-5

an anchorage configuration verification is required.)

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

Body-to-bonnet flange is approximately 1" from steel platform. It is adjudged acceptable because lateral support span is <6 ft and pipe is 12" diameter.

Other Adverse Conditions

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-V-5

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

Equipment Description: RWST Train B Isolation MOV CBS-V-5

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-FCV-619

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RHR HX B Bypass Valve RH-FCV-619

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 20.00 ft, RVST2

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-FCV-619

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RHR HX B Bypass Valve RH-FCV-619

an anchorage configuration verification is required.)

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.: 1-RH-FCV-619

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RHR HX B Bypass Valve RH-FCV-619

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-HCV-607

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RHR AOV RH-HCV-607

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 20.00 ft, RVST2

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-HCV-607

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RHR AOV RH-HCV-607

an anchorage configuration verification is required.)

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

Overhead grating positively secured.

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.: 1-RH-HCV-607

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RHR AOV RH-HCV-607

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-V-21

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

Equipment Description: RHR Cross-connect V21

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): RV, 20.00 ft, RVST2

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-RH-V-21

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

Equipment Description: RHR Cross-connect V21

an anchorage configuration verification is required.)

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.: 1-RH-V-21

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

Equipment Description: RHR Cross-connect V21

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-TK-8

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: RWST TANK CBS-TK-8

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): TF, 20.00 ft, TF201

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CBS-TK-8

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: RWST TANK CBS-TK-8

an anchorage configuration verification is required.)

Verified against Drwg 9763-F-111807

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.: 1-CBS-TK-8

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: RWST TANK CBS-TK-8

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-LCV-112-D

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

Equipment Description: CS A Pump Suction MOV CS-LCV-112D

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): TF, 20.00 ft, TF201

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 Not Applicable

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-LCV-112-D

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

Equipment Description: CS A Pump Suction MOV CS-LCV-112D

an anchorage configuration verification is required.)

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.: 1-CS-LCV-112-D

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

Equipment Description: CS A Pump Suction MOV CS-LCV-112D

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-LCV-112-E

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

Equipment Description: CS B Pump Suction MOV CS-LCV-112E

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): TF, 20.00 ft, TF201

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-LCV-112-E

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

Equipment Description: CS B Pump Suction MOV CS-LCV-112E

an anchorage configuration verification is required.)

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.: 1-CS-LCV-112-E

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

Equipment Description: CS B Pump Suction MOV CS-LCV-112E

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-E-17-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: TRAIN B HX E-17B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB401

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? No

NO - Anchors and supports are surface corroded. Recommend cleaning and re-coating at lateral base support at El. 25 ft. At El. 52' there are 12 - 1.375" anchors properly coated - no issue. Scaffold around heat exchanger is tied off and not an interaction hazard. Heat exchanger is also top braced laterally. See CAP.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-E-17-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: TRAIN B HX E-17B

Grout pad at el. 25 ft has cracks but they are not of structural capacity 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

Verified against drawing 9763-F-101564

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
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-E-17-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: TRAIN B HX E-17B

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TV-2271-1

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PCC Train B HX TV-2271-1

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB401

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TV-2271-1

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PCC Train B HX TV-2271-1

an anchorage configuration verification is required.)

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

*Pneumatic air supply line is approximately 3/8" from handrail.
Adjudged OK as pipe is seismically supported in axial direction.*

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

See answer to question #7

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TV-2271-1

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PCC Train B HX TV-2271-1

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TV-2271-2

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PCC Train B HX TV-2271-2

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB401

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TV-2271-2

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PCC Train B HX TV-2271-2

an anchorage configuration verification is required.)

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
Accumulator is touching pipe insulation but there is no relative movement possible so OK.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TV-2271-2

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PCC Train B HX TV-2271-2

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-19

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

Equipment Description: SW Return MOV SW-V-19

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB401

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-19

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

Equipment Description: SW Return MOV SW-V-19

an anchorage configuration verification is required.)

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

Fire protection piping above is seismically restrained.

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

One power line in contact with pipe support but has adequate flexibility.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-19

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

Equipment Description: SW Return MOV SW-V-19

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-20

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

Equipment Description: SW Return MOV SW-V-20

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB401

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 Not Applicable

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-20

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

Equipment Description: SW Return MOV SW-V-20

an anchorage configuration verification is required.)

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 under erection already seismically tied off. No issues.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Fire protection piping above is seismically restrained.

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.: 1-SW-V-20

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

Equipment Description: SW Return MOV SW-V-20

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-23

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

Equipment Description: SW Cooling Tower Return MOV SW-V-23

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB401

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-23

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

Equipment Description: SW Cooling Tower Return MOV SW-V-23

an anchorage configuration verification is required.)

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

Fire protection piping above is seismically restrained.

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.: 1-SW-V-23

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

Equipment Description: SW Cooling Tower Return MOV SW-V-23

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-34

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

Equipment Description: SW Cooling Tower Return MOV SW-V-34

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB401

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-34

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

Equipment Description: SW Cooling Tower Return MOV SW-V-34

an anchorage configuration verification is required.)

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 under erection already seismically tied off. No issues.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Fire protection piping above is seismically restrained.

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.: 1-SW-V-34

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

Equipment Description: SW Cooling Tower Return MOV SW-V-34

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-P-11-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: PCC PUMP CC-P-11B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB404

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

Two hairline cracks in concrete pad - no issue

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-P-11-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: PCC PUMP CC-P-11B

an anchorage configuration verification is required.)

Verified against Drwg 9763-F-101564

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
Restrained chainfall cannot strike lube oil reservoir, so OK.

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.: 1-CC-P-11-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: PCC PUMP CC-P-11B

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-P-11-D

Equipment Class: (5) Horizontal Pumps

Equipment Description: PCC PUMP CC-P-11D

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB404

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 |

Hairline cracks in concrete pad - no issue

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-P-11-D

Equipment Class: (5) Horizontal Pumps

Equipment Description: PCC PUMP CC-P-11D

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

Verified against Drwg 9763-F-101564

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? No

NO - Unrestrained chainfall could strike lube oil reservoir - This was immediately corrected by the walkdown team.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-P-11-D

Equipment Class: (5) Horizontal Pumps

Equipment Description: PCC PUMP CC-P-11D

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TE-2271

Equipment Class: (19) Temperature Sensors

Equipment Description: PCC Train B Temperature ELEMENT CC-TE-2271

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB404

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TE-2271

Equipment Class: (19) Temperature Sensors

Equipment Description: PCC Train B Temperature ELEMENT CC-TE-2271

an anchorage configuration verification is required.)

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

Fire wrapped plastic conduit with approximately 3" of temperature element. Adjudged no seismic interaction 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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TE-2271

Equipment Class: (19) Temperature Sensors

Equipment Description: PCC Train B Temperature ELEMENT CC-TE-2271

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TE-2297

Equipment Class: (19) Temperature Sensors

Equipment Description: PCC Train B Temperature ELEMENT CC-TE-2297

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB404

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 Not Applicable

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TE-2297

Equipment Class: (19) Temperature Sensors

Equipment Description: PCC Train B Temperature ELEMENT CC-TE-2297

an anchorage configuration verification is required.)

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

Fire wrapped plastic conduit with approximately 3" of temperature element. Adjudged no seismic interaction 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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-TE-2297

Equipment Class: (19) Temperature Sensors

Equipment Description: PCC Train B Temperature ELEMENT CC-TE-2297

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-93

Equipment Class: (18) Instruments on Racks

Equipment Description: PAB INST RACK RACK

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB404

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-93

Equipment Class: (18) Instruments on Racks

Equipment Description: PAB INST RACK RACK

an anchorage configuration verification is required.)

Instrument rack has 6 legs. Each leg is welded to an embedded plate by two fillet welds on opposite sides of a 3.5" square foot. Fillet welds are 3.5" in length and 3/16" in size.

Verified against Drwg 9763-F-101535 and Calculation PB-50

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
- Lighting fixtures above are rod hung and secure.*
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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-93

Equipment Class: (18) Instruments on Racks

Equipment Description: PAB INST RACK RACK

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-P-3-A

Equipment Class: (5) Horizontal Pumps

Equipment Description: Boric Acid Tank PUMP CS-P-3A

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB411

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-P-3-A

Equipment Class: (5) Horizontal Pumps

Equipment Description: Boric Acid Tank PUMP CS-P-3A

an anchorage configuration verification is required.)

Verified to Drwg 9763-F-101526

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.: 1-CS-P-3-A

Equipment Class: (5) Horizontal Pumps

Equipment Description: Boric Acid Tank PUMP CS-P-3A

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-TK-4-A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Boric Acid Tank 4A

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB411

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-TK-4-A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Boric Acid Tank 4A

an anchorage configuration verification is required.)

Verified to Drwg 9763-F-101526

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

All tubing and instruments supported by tube steel supports. Platform in front of tank is permanent and secured seismically.

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-TK-4-A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Boric Acid Tank 4A

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-TK-4-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Boric Acid Tank 4B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB411

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-TK-4-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Boric Acid Tank 4B

an anchorage configuration verification is required.)

Verified to Drwg 9763-F-101526

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

All tubing and instruments supported by tube steel supports. Platform in front of tank is permanent and secured seismically.

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 Yes
-

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CS-TK-4-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Boric Acid Tank 4B

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-74

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

Equipment Description: SW Return Isolation SWV74

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB412

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-74

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

Equipment Description: SW Return Isolation SWV74

an anchorage configuration verification is required.)

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

MOV (actuator) is 1" away from panel box. Seismic restraint in axial direction is about 12 ft away. Seismic displacement for an estimated 8 Hz system segment is about 0.1", so this 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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-74

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

Equipment Description: SW Return Isolation SWV74

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-76

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

Equipment Description: SW Return Isolation SWV76

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): PB, 25.00 ft, PB412

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SW-V-76

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

Equipment Description: SW Return Isolation SWW76

an anchorage configuration verification is required.)

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.: 1-SW-V-76

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

Equipment Description: SW Return Isolation SWV76

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EAH-FN-180-B

Equipment Class: (9) Fans

Equipment Description: CCP Cubicle Return FAN EAH-FN-180B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EV, 21.00 ft, EV101

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

Anchored by steel bolting to steel platform by 8 bolts in total.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EAH-FN-180-B

Equipment Class: (9) Fans

Equipment Description: CCP Cubicle Return FAN EAH-FN-180B

-
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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-EAH-FN-180-B

Equipment Class: (9) Fans

Equipment Description: CCP Cubicle Return FAN EAH-FN-180B

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-94

Equipment Class: (18) Instruments on Racks

Equipment Description: PAB INST RACK RACK

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): EV, 21.00 ft, EV101

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

Grout pad has cracks but embedded plate is anchored into concrete, so OK.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-94

Equipment Class: (18) Instruments on Racks

Equipment Description: PAB INST RACK RACK

(an anchorage configuration verification is required.)

Instrument rack has 6 legs. Each leg is welded to an embedded plate by two fillet welds on opposite sides of a 3.5" square foot.. Fillet welds are 3.5" in length and 3/16" in size.

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

PSA# CEVA-21-02 is a storage rack about 3' away and will not collapse or topple as it is anchored to reinforced concrete wall.

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

Lighting fixtures above are rod hung and secure.

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.: 1-MM-IR-94

Equipment Class: (18) Instruments on Racks

Equipment Description: PAB INST RACK RACK

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-P-322-A

Equipment Class: (5) Horizontal Pumps

Equipment Description: Thermal Barrier Train B PUMP P322B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CI, -26.00 ft, CI205

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

Mounted to steel frame

See photos.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-P-322-A

Equipment Class: (5) Horizontal Pumps

Equipment Description: Thermal Barrier Train B PUMP P322B

an anchorage configuration verification is required.)

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.: 1-CC-P-322-A

Equipment Class: (5) Horizontal Pumps

Equipment Description: Thermal Barrier Train B PUMP P322B

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Ed Antosz

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-176

Equipment Class: (7) Fluid-Operated Valves

Equipment Description:

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CI, -26.00 ft, CI205

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-176

Equipment Class: (7) Fluid-Operated Valves

Equipment Description:

an anchorage configuration verification is required.)

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.: 1-CC-V-176

Equipment Class: (7) Fluid-Operated Valves

Equipment Description:

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Ed Antosz

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-10-A

Equipment Class: (18) Instruments on Racks

Equipment Description: CS INST RACK

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CI, -26.00 ft, CI205

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
Anchorage is welding of legs to embedded plates - No deterioration

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-MM-IR-10-A

Equipment Class: (18) Instruments on Racks

Equipment Description: CS INST RACK

an anchorage configuration verification is required.)

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.: 1-MM-IR-10-A

Equipment Class: (18) Instruments on Racks

Equipment Description: CS INST RACK

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Ed Antosz

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-TK-9-A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Accumulator TANK SI-TK-9A

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CI, -26.00 ft, CI205

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

Infrequent visible small cracking in group pad and floor. Not a concern considering size and number, size and depth of anchors.

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-TK-9-A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Accumulator TANK SI-TK-9A

an anchorage configuration verification is required.)

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.: 1-SI-TK-9-A

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: Accumulator TANK SI-TK-9A

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Ed Antosz

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-V-3

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

Equipment Description: Accumulator CL#1 MOV SI-V-3

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): CI, -26.00 ft, CI205

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? Not Applicable
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SI-V-3

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

Equipment Description: Accumulator CL#1 MOV SI-V-3

(an anchorage configuration verification is required.)

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.: 1-SI-V-3

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

Equipment Description: Accumulator CL#1 MOV SI-V-3

Comments

Detailed signed records of the checklists are available at the site

Evaluated by: Ed Antosz

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SF-P-10-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: SPNT FUEL POOL PUMP B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): FB, 7.00 ft, FB107

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
Anchored by 6 -7/8" anchors.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes
One hairline crack near center bolt - no issue.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Drwg 9763 - F - 101668

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SF-P-10-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: SPNT FUEL POOL PUMP B

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

Verified against Drwg 9763-F-101668

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SF-P-10-B

Equipment Class: (5) Horizontal Pumps

Equipment Description: SPNT FUEL POOL PUMP B

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-445

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: Spent Fuel Pool HX Isolation AOV CC-V-445

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): FB, 21.00 ft, FB202

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 | Not Applicable |

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-CC-V-445

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: Spent Fuel Pool HX Isolation AOV CC-V-445

an anchorage configuration verification is required.)

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
- Piping and cable tray/conduit systems are seismically restrained.*
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.: 1-CC-V-445

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: Spent Fuel Pool HX Isolation AOV CC-V-445

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SF-E-15-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SPENT FUEL POOL HX B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): FB, 21.00 ft, FB202

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? Yes
(Note: This question only applies if the item is one of the 50% for which

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-SF-E-15-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SPENT FUEL POOL HX B

(an anchorage configuration verification is required.)

Verified against Drwg 9763-F-101668

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

Piping and cable tray/conduit systems are seismically restrained.

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.: 1-SF-E-15-B

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: SPENT FUEL POOL HX B

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FAH-FN-11-B

Equipment Class: (9) Fans

Equipment Description: EXHAUST FAN FOR F-74 FN-11B

Project: Seabrook SWEL

Location (Bldg, Elev,
Room/Area): FB, 64.00 ft, FB301

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

Forty - 3/4" anchors for seismic limit stop anchors. The vibration isolators are ignored for seismic capacity.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FAH-FN-11-B

Equipment Class: (9) Fans

Equipment Description: EXHAUST FAN FOR F-74 FN-11B

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

Verified against Drwg 9763-F-101586 & -101668

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 Yes

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1-FAH-FN-11-B

Equipment Class: (9) Fans

Equipment Description: EXHAUST FAN FOR F-74 FN-11B

could adversely affect the safety functions of the equipment?

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

D

Area Walk-By Checklists (AWCs)

Table D-1. Summary of Area Walk-By Checklists

AREA WALK-BY	DESCRIPTION	ID	COMMENTS	PAGE
CT101	SW Cooling Tower	1-EDE-MCC-641 1-EDE-US-64 1-EDE-X-5-H 1-SWA-TSH-5668	SWEL-01	D-4
CT202	SW Cooling Tower	1-SWA-DP-65 1-SWA-DP-66 1-SWA-FN-63 1-SWA-TSH-5666 1-SW-P-110-B 1-SW-V-25 1-SW-V-26	SWEL-01	D-6
DG102	DG Bldg Train B	1-DG-P-38-B 1-DG-TK-26-B	SWEL-02	D-8
DG202	DG Bldg Train B	1-DG-C-2-B 1-DG-CP-37 1-DG-CP-76-A 1-DG-CP-907-B 1-DG-DG-1-B 1-DG-E-41-B 1-DG-P-117-B 1-DG-P-118-B 1-DG-TCV-7-B1 1-DG-V-11-B 1-DG-V-9-B 1-EDE-MCC-611 1-MM-CP-450-B	SWEL-02	D-11
DG305	DG Bldg Train B	1-DG-TK-78-B	SWEL-02	D-13
DG308	DG Bldg Train B	1-DAH-FN-25-B	SWEL-02	D-15
CB105	CB Essential SWGR Train B	1-DG-CP-80 1-EDE-BC-1-B 1-EDE-I-1-F 1-EDE-MCC-612	SWEL-03	D-17

AREA WALK-BY	DESCRIPTION	ID	COMMENTS	PAGE
		1-EDE-PP-112-B 1-EDE-PP-1-B 1-EDE-SWG-11-B 1-EDE-SWG-6 1-EDE-US-61 1-EDE-X-5-C 1-MM-CP-108-B		
CB106	CB Essential SWGR Train B	1-EDE-B-1-B	SWEL-03	D-19
EF301	Emergency Feedwater Pumphouse	1-EPA-FN-47-B 1-EPA-TSH-5431 1-FW-FV-4214-A 1-FW-FV-4214-B 1-FW-FV-4224-A 1-FW-FV-4224-B 1-FW-P-37-B 1-FW-V-347 1-MM-IR-50	SWEL-04	D-22
MF206	MS/FW Pipe Chase (East)	1-MSD-V-45 1-MSD-V-46	SWEL-05	D-24
MF304	MS/FW Pipe Chase (East)	1-FW-V-39 1-FW-V-48 1-MS-V-394	SWEL-05	D-27
MF403	MS/FW Pipe Chase (East)	1-MS-PV-3002 1-MS-V-88	SWEL-05	D-29
RV102	RHR Equipment Vault Train B	1-CBS-P-9-B	SWEL-06	D-31
RV104	RHR Equipment Vault Train B	1-RH-P-8-B	SWEL-06	D-33
RV202	RHR Equipment Vault Train B	1-CBS-V-51 1-RH-V-36 1-SI-P-6-B 1-SI-V-111	SWEL-06	D-35
RV302	RHR Equipment Vault Train B	1-CBS-E-16-B 1-CC-V-266 1-RH-E-9-B	SWEL-06	D-37
RV304	RHR Equipment Vault Train B	1-CC-V-272 1-RH-FCV-611	SWEL-06	D-39
TF201	Refueling Water Storage Tank	1-CBS-TK-8 1-CS-LCV-112-D 1-CS-LCV-112-E	SWEL-07	D-41
PB401	PAB 25' Elevation	1-CC-E-17-B 1-CC-TV-2271-1 1-CC-TV-2271-2 1-SW-V-19 1-SW-V-20	SWEL-081	D-43

AREA WALK-BY	DESCRIPTION	ID	COMMENTS	PAGE
		1-SW-V-23 1-SW-V-34		
PB404	PAB 25' Elevation	1-CC-P-11-B 1-CC-P-11-D 1-CC-TE-2271 1-CC-TE-2297 1-MM-IR-93	SWEL-08	D-45
PB411	PAB 25' Elevation	1-CS-P-3-A 1-CS-TK-4-A 1-CS-TK-4-B	SWEL-08	D-48
PB412	PAB 25' Elevation	1-SW-V-74 1-SW-V-76	SWEL-08	D-50
EV101	Containment Enclosure Ventilation Area	1-EAH-FN-180-B 1-MM-IR-94	SWEL-09	D-53
CI205	Containment	1-CC-P-322-A 1-MM-IR-10-A 1-SI-TK-9-A 1-SI-V-3	SWEL-10	D-55
CI301	Containment	1-CC-V-176	SWEL-10	D-57
FB107	Fuel Storage Bldg	1-SF-P-10-B	SWEL-11	D-59
FB202	Fuel Storage Bldg	1-CC-V-445 1-SF-E-15-B	SWEL-11	D-61
FB301	Fuel Storage Bldg	1-FAH-FN-11-B	SWEL-11	D-63

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CT, 22, CT101

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

Some corrosion on H2E, judged OK for no seismic interaction.

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

See equipment notes.

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

No fire piping in area.

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CT, 22, CT101

-
- | | |
|---|-----|
| 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 |

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CT, 46, CT202

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

Lights have safety chains and can swing freely. Light over DP-65 may see minor impact on adjacent C-tray but not a credible hazard.

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

No fire piping in area.

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CT, 46, CT202

-
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
- Saw temporary stanchion. Stanchion has heavy base & won't topple. It is more than 18" from nearest equipment item (conduit of pump P-110-A). Not a credible 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

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, -16, DG102

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

Support of floor supported fire piping has rust, OK but long term maintenance Issue (see photo).

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
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, -16, DG102

Wet fire piping, well supported on floor.

Fire piping overhead was inspected. One sprinkler head was close to a conduit (see photo). Gap is 1-1/4". Based on conservative displacement estimate below, gap is acceptable.

Sprinkler is on a segment of 1" fire pipe running n/s across room, say 50' length of pipe for mass. Pipe segment is restrained by vertical branch to main, acts as a 18" cantilever support for segment. Treat as SDOF system.

1" pipe properties

w/L = 1.68 lb/ft (weight/length)

I = 0.08734 in⁴ (bending inertia)

E = 29.0E6 psi (modulus)

g = 386.4 in/sec² (accel of gravity)

Get frequency

w = (1.68 lb/ft)(50') = 84 lbs (supported mass)*

h = 18" (cantilever length)

*k = 3*E*I/h³ = 1300 lb/in*

*f = sqrt(k*g/w)/(2*pi) = 12.3 Hz*

Estimate displacement for 5g acceleration (very conservative value)

*D = (5*386.4)/(2*pi*12.3)² inches = 0.32 inches*

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?

Yes

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, -16, DG102

DG fuel piping and tank is SC-I and not a credible hazard.

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

Comments:

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

Evaluated by:	John O'Sullivan	Date:	11/05/12
	_____		_____
	Scott Kenrick		11/05/12
	_____		_____

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, 21, DG202

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

Yes. High energy bus duct well supported to wall.

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

Overhead crane OK - see 1-DG-CP-37 SWC.

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

Fire piping in area well supported.

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, 21, DG202

-
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
- Yes - scaffold OK (see 1-DG-CP-37 SWC). Mobile platform tied OK.*
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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, 51, DG305

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

Check overhead fan - OK, 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

Fire piping in area well supported. Spray nozzles have good clearance.

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, 51, DG305

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

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : DG, 51, DG308

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

Pendulum lights can swings and cracking of bulbs may occur for a few. Not a credible hazard to equipment.

 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): Area : DG, 51, DG308

No fire protection piping seen

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

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CB, 21, CB105

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

No fire protection piping in area.

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CB, 21, CB105

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

East end of room, large scaffold assy (tall) was inspected. Well constructed (+ tagged). Tied to C-tray unistrut system for e/w stability.

Other scaffolds viewed in area of CB109. Consistent bracing to bldg hard points. No issues.

Stanchions at east end of SWG-6 unit - standoff > 18". Stanchion has heavy base & won't topple. It is more than 18" from nearest equipment item (SWG-6). Not a credible hazard.

Mobile equip in area tied off or stowed in good condition.

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CB, 21, CB105

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CB, 21, CB106

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) Yes
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CB, 21, CB106

and lighting)?

Lights on short pendulums, no issues (swing space OK).

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

No spray sources.

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

Comments:

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

Evaluated by: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CB, 21, CB106

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : EF, 27, EF301

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

*Hoist trolley not a collapse hazard. Hoist is restrained to tie off on wall.
Hoist track has adequate support.*

 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): Area : EF, 27, EF301

Overhead fire piping main with welded joints and threaded joint at valve. Checked support conditions and judged OK.

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

Loose stanchion near insulated pipe, 8" from insulation, 10" from pipe. Another is 4½" to conduit. Stanchion is bottom weighted and won't topple but can slide. Stanchion judged not to be a hazard to nearby targets (no soft targets).

Scaffold near 1-FW-FV-4214-A, B seen to have multiple brace points well distributed. Overhead lift beams above scaffold C-clamped with clamps in vertical direction, OK. Beams are part of scaffold tagging.

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: John O'Sullivan

Date: 11/05/12

Scott Kenrick

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : EF, 27, EF301

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : MF, 3, MF206

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

Cable tray, HVAC and piping are seismically 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
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : MF, 3, MF206

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

Scaffold RF-1434 and 1444 are seismically braced to pipe supports and cable tray supports and properly tagged - no issues.

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

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : MF, 12, MF304

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

Scaffolds PM-1424A & RF-1444A are seismically secured.

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

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : MF, 12, MF304

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

Transient combustible CWP-12-3272 permit for pneumatic and hydraulic fluid. Two carts are on wheels and securely strapped to grating with temporary tags in place. Cart is seismically adequate.

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

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : MF, 27, MF403

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

Scaffolding is properly braced, tied off and tagged.

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 crane is secured by chain fall and cannot be dislodged.

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
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : MF, 27, MF403

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
-

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, -61, RV102

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

Overhead grating is anchored to platform.

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Yes

Discharge pipe support on west wall has slight corrosion which is not deemed an issue.

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, -61, RV102

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
-

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, -61, RV104

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

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, -61, RV104

-
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
- Storage box tagged with permanent tag and properly set off from pump, therefore, OK.*
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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, -50, RV202

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

Radiation sign stanchion will not topple and it's secured to floor grating with wire.

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

Overhead grating positively secured.

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): Area : RV, -50, RV202

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
-

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, 0, RV302

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

Stanchions at El (-)31 ft in tagged permanent storage area secured by rope. No issues.

 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): Area : RV, 0, RV302

- 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
-

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, 0, RV304

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

Scaffold RF-2161A seismically tied off.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Yes

Grating is tied down.

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

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : RV, 0, RV304

-
- | | |
|---|-----|
| 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 |
-

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : TF, 20, TF201

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

All tanks and piping seismically secure.

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : TF, 20, TF201

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
- Small platforms (scaffolds) tied off seismically.*
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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB401

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

Air/gas cylinders are well restrained.

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

Demin water and fire protection piping laterally restrained.

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
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB401

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
-

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB404

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

Demineralized water and fire protection piping are seismically restrained.

 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
-

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB404

All piping in area is seismically restrained.

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

PSA (permanent storage area) #PAB-25-11 has a storage cabinet that is 72" tall and could topple onto IR 1-MM-IR-20C but there is nothing vital on rack thus no issue (to be confirmed). Instrument Rack 1-MM-IR-20-C is not nuclear safety, not Class 1E, and not trip critical. Were the storage cabinet to topple onto it, there would be no adverse consequences.

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

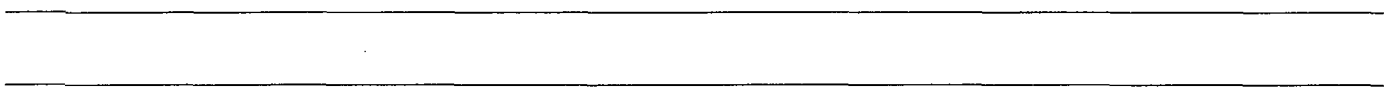
Detailed signed records of the checklists are available at the site.

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12



Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB411

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

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB411

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Yes

WG (waste gas) piping which may contain hydrogen gas is well supported seismically in area and socket welded.

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

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB412

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? No

NO - Service water pipe support #1821-RG-8, near valve SW-V-74 is corroded below El. 25 ft (SW line) directly beneath Scaffold NP-0117A. Cleanup/repair/re-coating is advisable. See CAP

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

Fire protection system deluge station 1-FP-V-709 & 1-FP-V-687 are seismically restrained such that threaded end piping termination and mechanical (Victaulic) couplings are not an issue.

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 Yes

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : PB, 25, PB412

interactions that could cause flooding or spray in the area?

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

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : EV, 21, EV101

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

Free standing unanchored plenum box is cable restrained at top and bottom adjacent to 1-MM-IR-94 so OK.

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

Mostly HVAC and it is seismically restrained.

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

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : EV, 21, EV101

-
- | | |
|---|-----|
| 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 |
-

Comments

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

Evaluated by:	Walter Djordjevic	Date: 11/05/12
	Bruce Bouton	11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CI, -26, CI205

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

All equipment well anchored

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

All 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

Lighting well secured

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): Area : CI, -26, CI205

-
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
- No scaffolding*
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: Ed Antosz Date: 11/05/12

Bruce Bouton 11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : CI, 0, CI301

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

All equipment well anchored

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

All 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

Lighting well secured

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): Area : CI, 0, CI301

-
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
- Scaffolding installed per station procedures, no seismic interaction.*
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:	Ed Antosz	Date:	11/05/12
	_____		_____
	Bruce Bouton		11/05/12
	_____		_____

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : FB, 7, FB107

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

All piping is seismically supported.

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 utilities including demin water and fire protection piping are seismically 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

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : FB, 7, FB107

-
- | | | |
|------|--|-----|
| 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 |
-

Comments

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

Evaluated by: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : FB, 21, FB202

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

All raceways are seismically 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

Ladder storage area 14 and PSA FSB-25-01 restrain ladders and bottles securely.

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): Area : FB, 21, FB202

-
- | | |
|---|-----|
| 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 |
-

Comments

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

Evaluated by:	Walter Djordjevic	Date:	11/05/12
	Bruce Bouton		11/05/12

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : FB, 64, FB301

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

Status: Y N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area : FB, 64, FB301

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

Fire extinguishers mounted on reinforced concrete wall are set on deep hooks so OK.

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: Walter Djordjevic

Date: 11/05/12

Bruce Bouton

11/05/12

E

Plan for Future Seismic Walkdown of Inaccessible Equipment

As described in the SWEL for Seabrook in Appendix B, 3 items have been deferred until Refueling Outage 16 in the Spring of 2014 when the major 4KV bus (E5 or E6) is de-powered. Table E-1 summarizes the reasons each item is inaccessible during normal plant operation. These items have been issued a CAP where a schedule the future Seismic Walkdowns for these items is provided.

Table E-1. Summary of Inaccessible Equipment

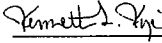
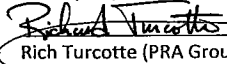

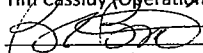
Component ID	Description	Reason for Inaccessibility
1-EDE-SWG-6	4KV Bus E6	Equipment energized – equipment outage required (See CAP)
1-EDE-US-61	480V Bus E61	Equipment energized – equipment outage required (See CAP)
1-EDE-US-64	480V Bus E64	Equipment energized – equipment outage required (See CAP)

F

Peer Review Report

**Peer Review Report for the
Seismic Walkdown Inspection of Seabrook Station
(NRC Near Term Task Force Recommendation 2.3)**

Seabrook Station
November 2012

Prepared by		11-1-2012
	Ken Kiper (PR Team Lead)	Date
Reviewed by		11/1/2012
	Rich Turcotte (PRA Group)	Date
Reviewed by		11/1/2012
	Tim Cassidy (Operations)	Date
Reviewed by		11/1/12
	Bruce Bouton (Engineering)	Date

1 Introduction

This report documents the peer review of the seismic walkdowns performed for Seabrook Station in August and September 2012, 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 July and August and finalized in September, 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 August 29, 30, & 31, with two teams the first two days and a single team on the last day. The peer review of the walkdowns occurred in the afternoons of August 29 & 30. This portion of the peer review is documented in Section 4.

One area – containment – was walked down separately on Sept 19, during the OR15 refueling outage. This allowed the walkdown to occur with less radiation exposure to the walkdown team.

Three components could not be examined entirely with the bus powered: essential 4KV switchgear Bus E6, and unit substations US61 & US64. Consequently, the walkdown for these components was postponed to the next scheduled outage when Bus E6 is scheduled to be removed from service for maintenance. These inspection deferrals are being tracked by See CAP (Bus E6) and (US 61 & US64).

3 Peer Review Team & Process

The Seabrook Peer Review Team consisted of individuals from Seabrook operations, structural engineering, and PRA as well as structural/seismic engineers from Stevenson & Assoc. 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 Peer Review Team

The affiliation, role, and qualifications for each Peer Review Team member are summarized in the following table.

Name	Group	Role *	Qualifications **
Tim Cassidy	SBK Operations	PR – SWEL PR – SWE Teams A & B	(e), (f)
Bruce Bouton	SBK Structural Engineering	SWE Team #1 PR – SWE Team B	(a), (b), (c), (e)
Scott Kenrick	SBK Structural Engineering	SWE Team #2 PR – SWE Team A	(a), (b), (c), (e)
Ken Kiper	SBK PRA Group	PR Team Lead SWEL Preparer PR – SWE Teams A & B	(d), (e)
Rich Turcotte	SBK PRA Group	PR – SWEL PR – SWE Teams A & B	(c), (d), (e)
Ed Antosz	SBK PRA Group	SWE Team (Containment)	(a), (c)
Walter Djordjevic	Stevenson & Assoc. (consultant eng.)	SWE Team #1 PR – SWE Team B	(a), (b), (c)
John O’Sullivan	Stevenson & Assoc. (consultant eng.)	SWE Team #2 PR – SWE Team A	(a), (b), (c)

Notes:

* Role: PR (peer review), SWEL (seismic walkdown equipment list), SWE (seismic walkdown engineer)

** Qualifications:

- (a) Completed EPRI NTTF 2.3 Seismic Walkdown Training
- (b) Seismic engineering experience
- (c) Degree in mechanical engineering or civil/structural engineering
- (d) Seismic PRA / IPEEE experience
- (e) Knowledge of plant operations, documentation
- (f) Plant Operations member

3.2 Peer Review Process

- **PR Team Lead**

K. Kiper 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 walkdown team PR. He also had the lead in the SWEL preparation, so he was not part of that PR process.

- **SWEL Preparation**

The SWEL was prepared by K. Kiper, who is the lead Seabrook PRA engineer, with experience and familiarity with the Seabrook IPEEE Report and Seabrook Seismic PRA.

The SWEL was reviewed by a team that included a PRA engineer (R. Turcotte), design structural engineer (B. Bouton), and Operations representative (T. Cassidy). All of these individuals are familiar with the design and layout of the plant and plant documentation.

- Lead – K. Kiper
- PR Team for SWEL – R. Turcotte, B. Bouton, T. Cassidy

- **Seismic Walkdown**

The primary seismic walkdown was conducted with two teams, each with two qualified structural/seismic engineers. The Peer Review of the walkdowns consisted of two teams made up of Operations representative (T. Cassidy), PRA representatives (K. Kiper, R. Turcotte), and structural/seismic engineers (B. Bouton, S. Kenrick, W. Djordjevic, J. O'Sullivan). The structural/seismic engineers made up the SWE teams, but also served to peer review each other's work. The Operations and PRA representatives also participated in some of the walkdowns for logistical support as well as peer review. The ultimate judgments regarding licensing basis were made by qualified Seabrook structural engineers (B. Bouton, S. Kenrick).

- Seismic Walkdown Engineers (SWE):
 - SWE Team #1 - W. Djordjevic (team lead), B. Bouton
 - SWE Team #2 - J. O'Sullivan (team lead), S. Kenrick
 - SWE (Containment) – B. Bouton (team lead), E. Antosz
- PR SWE Team A – K. Kiper, R. Turcotte, T. Cassidy, S. Kenrick, J. O'Sullivan
- PR SWE Team B – K. Kiper, R. Turcotte, T. Cassidy, B. Bouton, W. Djordjevic
- Licensing Basis Reviewers – B. Bouton, S. Kenrick
- IPEEE Reviewers – K. Kiper, R. Turcotte

- **Final Report**

The final seismic walkdown report was prepared by the Stevenson & Assoc. consultants, with review by Seabrook representatives from Operations, design structural engineering, and PRA.

- Preparers –W. Djordjevic, J. O'Sullivan
- Reviewers - K. Kiper, R. Turcotte, T. Cassidy, B. Bouton

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 walkdowns was completed by the PR Teams on August 29 & 30, following the walkdowns for those days. Additional peer reviews were conducted following the walkdowns as documented in this report.

5.1 Review of Sample Checklists & Area Walk-bys

The peer review meetings on August 29 & 30 consisted of each SWE Team (#1 and #2) presenting 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 day's walkdown activities allowed for an immediate information exchange and feedback on walkdown observations between each walkdown team as well as common agreement on how observation 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 component samples represent about 25% of the total SWEL population of 102 components. The sample includes a variety of component "types" (e.g., heat exchanger, valve, pump, tank, instrument rack, unit substation, transformer, fan, motor control center, compressor, power panel, and control panel) and variety of component "locations" (e.g., RHR vault, PAB, Tank Farm, SW cooling tower, 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 area samples represent about a third of the total AWC population of 29 rooms. These areas included the RHR vault, PAB, Tank Farm, SW cooling tower, DG Bldg, and Essential Switchgear room.

Tables 5-1 and 5-2 document observations made by the walkdown teams that form the basis for the peer review. The following topics were addressed by each team:

- **Concrete Cracks** – Cracks were observed in the concrete floors in the vicinity of where components were anchored. Since the guidance does not give discretion for the significance of the crack, the peer review team agreed that concrete cracks located near anchorage should be recorded as "U" (unresolved) finding. Then, after follow-up review, these findings could be changed to "YES" if the crack is a minor surface crack or "NO" if the concrete crack is located near anchorage, is more than a minor surface crack, and may need further detailed evaluation.
- **Physical Interaction** – Several of the component samples provided an example of close spacing between the SWEL component and a hard object (such as a fixed structural support or a hand rail), with the potential for seismic interaction. In each case, the close spacing was judged to provide adequate clearance, but this did reinforce the importance of careful field examination of each component for potential seismic/spatial interaction.
- **Seismic Housekeeping** – Seismic housekeeping was assessed in each area and found to be acceptable. Storage boxes were tied off or physically separated from equipment in designated areas. The presence of stanchions used to display signs or to rope off protected train equipment was noted. It was agreed that these stanchions do not represent a significant seismic risk due to tipping or lateral movement because: (1) the stanchions typically have a heavy base and very low center of gravity, and (2) overall, the stanchions have relatively light weight and are adequately tethered at the base to prevent significant lateral movement during a seismic event.

- Seismic Scaffolding – Erected scaffolding was observed in a number of areas. In each case, the scaffolding was carefully and adequately braced in multiple lateral directions to prevent the scaffolding from interacting with other equipment during a seismic event. All scaffolding was erected by procedure with the controlling permit documented and displayed at each scaffolding. This was observed by both walkdown teams.
- Non-safety Piping in Safety Related Buildings – Non-safety piping in all walk-by areas was observed to be well supported with lateral restraints.

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 Seabrook seismic walkdown inspections and how they were addressed. The review of those anomalies demonstrates a thorough and reasonable process for addressing 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 Seabrook representatives from structural engineering, Operations, and the PRA Group. Comments were provided to assure the final report meets 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. Seabrook Report, *Selection of the Seabrook Station Seismic Walkdown Equipment List (SWEL) for the Requirement 2.3 Walkdown*, Rev 01, September 2012.

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: No issues identified during peer review. The SWEL development included various components that support each of the five key safety functions. The functions include: reactivity control, RCS pressure control, RCS inventory control, decay heat removal and containment. The linkage between safety function and component is based on insights from the Seabrook PRA and design basis information and is demonstrated in the SWEL Selection document.

-
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: No issues identified during peer review. The SWEL development specifically included components from various types of systems. Specifically, the components represent the major front line and support systems that are considered important from a PRA perspective such as injection, heat removal, cooling water, ventilation and power systems. Also included are components associated with spent fuel pool cooling.

- b. Major new and replacement equipment? Y
N

Requirement met.

Remarks: No issues identified during peer review. SWEL development included a review of new or replacement equipment was performed; this review identified only one component having recent installation; this being the new DG temperature control panel DG-CP-907B. Other major components have been replaced over the years but with like components (example CCW pump motors) and these are captured in the SWEL.

Peer Review Checklist for SWEL

c. Various types of equipment?

Y

 N

Requirement met.

Remarks: No issues identified during the peer review. The SWEL included components from almost all of the suggested equipment types. The only type of equipment not explicitly evaluated was the EAH-AC-2 unit (air handler/chiller). This component was excluded because the anchorage could not be completely verified. This notwithstanding, no issues were identified during the examination. Overall, the SWEL is comprehensive with regard to examining a variety of different types of components.

d. Various environments?

Y

 N

Requirement met.

Remarks: No issues identified during the peer review. SWEL components were located in many different areas of the plant including containment. Many areas have roughly the same indoor environment, representative of normal operating conditions with both operating and standby equipment. These environments are judged representative of the environments that would be expected during a random seismic event. Also, normal and accident environments are judged to play a minor role in the adequacy of seismic anchorage.

e. Equipment enhanced based on the findings of the IPEEE (or equivalent) program?

Y

 N

Requirement met.

Remarks: No issues identified during the peer review. The Seabrook Station IPEEE was independently reviewed during the peer review to confirm that there were no seismic design enhancements recommended or implemented as a result of the external events risk study.

f. Were risk insights considered in the development of SWEL 1?

Y

 N

Requirement met.

Remarks: No issues identified during the peer review. The SWEL was originally developed from the components list in the Seabrook internal events PRA. This list specifically identifies risk important components. Based on peer review of the SWEL, the SWEL is judged to include a good cross section of risk significant and SC-1 components representing the features important to both core damage mitigation and release mitigation.

Peer Review Checklist for SWEL

3. For SWEL 2:

- a. Were spent fuel pool related items considered, and if applicable included in SWEL 2? Y N

Requirement met.

Remarks: No issues identified during the peer review. Components associated with spent fuel pool are specifically included in the SWEL 2 walkdown list. The EPRI screening criteria were also used in the development of the SFP SWEL 2 list and addressed: seismic category, equipment and system types, sample considerations, and potential for rapid drain down. The SWEL 2 component list represents a good sampling of the major SFP components.

- b. Was an appropriate justification documented for spent fuel pool related items not included in SWEL 2? Y N

Requirement met.

Remarks: No issues identified during the peer review. SWEL 2 component selection process is essentially the same as the SWEL 1 selection process and is documented in the SWEL selection report.

4. Provide any other comments related to the peer review of the SWELs.

Overall, the SWEL 1 and SWEL 2 component lists are comprehensive and have a reasonable basis consistent with the ERPI / industry selection process. The walkdown of SWEL 1 and SWEL2 components will provide a comprehensive indication of the overall seismic health status of all Seabrook Station SC-1 systems/components.

-
5. Have all peer review comments been adequately addressed in the final SWEL? Y N

Peer review comments (editorial in nature) have been incorporated into the SWEL selection document. This did not result in any changes to the SWEL lists themselves.

Peer Reviewer #1: Richard Turcotte Date: 11/01/2012

Peer Reviewer #2: Richard Turcotte
Bruce Bouton Date: 11/1/12

Peer Reviewer #3: Tim Cassidy Date: 11/1/2012