E

Plan for Future Seismic Walkdown of Inaccessible Equipment

Sixteen (16) 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. The items will be walked down during a unit outage or time when the equipment is accessible, as appropriate. Table E-1 summarizes the reasons each item is inaccessible during normal plant operation and notes the Oyster Creek Station Issue Report IR that has been written to track completion of the Seismic Walkdowns (and Area Walk-bys) for these items. It is noted that SSCs identified on Table E-1 require a complete inspection including, as applicable, internal inspections of electrical cabinets for other adverse seismic conditions, as required.

Certain cabinets require supplemental internal inspection for other adverse seismic conditions as summarized in Table E-2. Supplemental internal inspections of these cabinets are required due to clarification provided by the NRC after the online seismic walkdowns were completed. These Supplemental inspections will be completed during a unit outage or another time when the equipment is accessible, as appropriate. It is noted, that SSCs identified on Table E-1 do not appear on Table E-2.

Table E-1. Inaccessible and Deferred Equipment

Component ID	Description	Reason for Inaccessibility	Action Request ID (IR)	Resolution/ Status	Milestone Completion
V-1-160	SAFETY RELIEF VALVE NR28D (SOUTH HEADER)	Located in Drywell	1382250	Open	4Q2012
V-1-164	SAFETY RELIEF VALVE NR28H (NORTH HEADER)	Located in Drywell	1382250	Open	4Q2012
V-1-173	ELECTROMATIC RELIEF VALVE NR108-A(SOUTH HEADER)	Located in Drywell	1382250	Open	4Q2012
V-1-175	ELECTROMATIC RELIEF VALVE NR108-C(NORTH HEADER)	Located in Drywell	1382250	Open	4Q2012
V-1-177	ELECTROMATIC RELIEF VALVE NR108-E(SOUTH HEADER)	Located in Drywell	1382250	Open	4Q2012
V-16-1	CU INLET ISOLATION VALVE FROM REACTOR VESSEL	Located in Drywell	1382250	Open	4Q2012
V-1-106	MAIN STEAM LINE 'A' DRAIN VALVE	Located in Drywell	1382250	Open	4Q2012
V-1-7	MAIN STEAM LINE'A' OUTLET ISOLATION VALVE(NS03-A)	Located in Drywell	1382250	Open	4Q2012
RK-411-1	MSIV'S SOLENOID AIR VALVE & EQUIPMENT MOUNTING RACK	Located in Trunnion Room	1382250	Open	4Q2012
V-1-10	MAIN STEAM LINE'B' OUTLET ISOLATION VALVE(NS04-B)	Located in Trunnion Room	1382250	Open	4Q2012
1A21-460V	MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING	Clarification on opening cabinets was provided after initial walkdown	1382250	Open	4Q2012
1A21B-460V	MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING	Clarification on opening cabinets was provided after initial walkdown	1382250	Open	4Q2012

Component ID	Description	Reason for Inaccessibility	Action Request ID (IR)	Resolution/ Status	Milestone Completion
1A23-460V	MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING	Clarification on opening cabinets was provided after initial walkdown	1382250	Open	4Q2012
1A2-460V	460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING	Must physically remove breakers to inspect internals.	1382250	Open	4Q2012
1C	4160V BUS 1C SWITCHGEAR	Clarification on opening cabinets was provided after initial walkdown	1382250	Open	4Q2012
DC-C 125V	125VDC POWER PANEL DC-C CENTER 'C'	Equipment always energized.	1382250	Open	4Q2018

Table E-2. Supplemental Internal Cabinet Inspection List

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
6R	MAIN CONTROL RM PANEL 6R REACTOR PROTECTION CH.1	(20) Instrumentation and Control Panels	interior inspection completed during online walkdown	N/A	N/A	N/A	closed/ no issue identified
7R	MAIN CONTROL RM PANEL 7R REACTOR PROTECTION CH.2	(20) Instrumentation and Control Panels	interior inspection completed during online walkdown	N/A	N/A	N/A	closed/ no issue identified
BTCHG C1	'C' STATION BATTERY SOLID STATE STATIC CHARGER C1	(16) Battery Chargers and Inverters	Y	N/A	4Q2012	IR 1382250 AR A2307028 WO C2028232	open
CIP-3	CONTINUOUS INSTRUMENT PNL NO.3 208/120V,3PH,4W, 60HZ	(14) Distribution Panels	N	Equipment always energized. Opening of doors will introduce undue safety and operational hazard	N/A	N/A	N/A

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
DC-F	125VDC POWER PANEL DC-F	(14) Distribution Panels	N	Equipment always energized. Opening of doors will introduce undue safety and operational hazard	N/A	N/A	N/A
DG-1 BATTERY CHARGER	DIESEL GENERATOR UNIT #1 BATTERY CHARGER	(16) Battery Chargers and Inverters	Y	N/A	1R24 refueling outage	IR 1382250 AR A2307028 WO C2028232	open
DG-1 SWGR	DIESEL GENERATOR #1 UNIT SWITCHGEAR	(20) Instrumentation and Control Panels	Y	N/A	1R24 refueling outage	IR 1382250 AR A2307028 WO C2028232	open
ER18A	CORE SPRAY/AUTO DEPRESS'N SYSTEM RELAY LOGIC PANEL	(20) Instrumentation and Control Panels	Y	N/A	1R24 refueling outage	IR 1382250 AR A2307028 WO C2028232	open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
IP-4	120VAC INSTRUMENT PANEL 4 - 208/120V,3PH,4W	(14) Distribution Panels	N	Equipment always energized. Opening of doors will introduce undue safety and operational hazard	N/A	N/A	N/A
IT-4A	TRANSFORMER FROM MCC 1A2-460V TO IP-4	(04) Transformers	N	Equipment always energized. Opening of doors will introduce undue safety and operational hazard	N/A	N/A	N/A
LSP-1A2	LOCAL SHUTDOWN PANEL- USS 1A2 PUMP/BREAKER CONTROL	(20) Instrumentation and Control Panels	Y	N/A	1R24 refueling outage	IR 1382250 AR A2307028 WO C2028232	open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
PS-1	480/120VAC TRANSFORMER TO PROTECTION SYS PANELS 1&2	(04) Transformers	N	Equipment always energized. Opening of doors will introduce undue safety and operational hazard	N/A	N/A	N/A
VACP-1	120V VITAL AC POWER PANEL 208/120V,3PH,4W, 60HZ	(14) Distribution Panels	N	Equipment always energized. Opening of doors will introduce undue safety and operational hazard	N/A	N/A	N/A
VACP-1 XF	120V VITAL AC POWER PANEL TRANSFORMER 480/208/120V	(04) Transformers	N	Equipment always energized. Opening of doors will introduce undue safety and operational hazard	N/A	N/A	N/A

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
1A21A-460V	MCC 1A21A 460V, 3P, 3W, 60HZ, FOR REACTOR BUILDING	(01) MCC	Y	N/A	1R24 refueling outage	IR 1382250 AR A2307028 WO C2028232	OPEN
1A2-460V XF	USS 1A2-460V 4160-480V/277V 3PH 60HZ	(04) Transformers	N	Major disassembly required	N/A	N/A	N/A

F

Peer Review Report

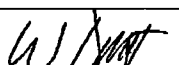
This appendix includes the Peer Review Team's report, including the signed Peer Review Checklist for SWEL from Appendix F of the EPRI guidance document. (Ref. 1)

Peer Review Report
for
Near Term Task Force (NTTF) Recommendation 2.3
Seismic Walkdown Inspection
of
Oyster Creek Generating Station

October 12, 2012

Prepared by Peer Reviewers

Walter Djordjevic (Team Leader)
Todd A. Bacon
Tony Perez

Walter Djordjevic 	October 12, 2012
Peer Review Team Leader Certification Signature	Date

1 Introduction

1.1 OVERVIEW

This report documents the independent peer review for the Near Term Task Force (NTTF) Recommendation 2.3 Seismic Walkdowns performed by Stevenson & Associates (S&A) for Unit 1 of the Oyster Creek Generating Station (OCGS). The peer review addresses the following activities:

- Review of the selection of the structures, systems, and components, (SSCs) that are included in the Seismic Walkdown Equipment List (SWEL).
- Observation of the seismic walkdowns on August 23, 2012 and adherence to the Seismic Walkdown Guidance (SWG)[1] by Mr. Todd Bacon.
- Review of a sample of the checklists prepared for the Seismic Walkdowns & Walk-Bys.
- Review of licensing basis evaluations, as applicable.
- Review of the decisions for entering the potentially adverse conditions into the plant's Corrective Action Plan (CAP).
- Review of the final submittal report

The peer reviewers for OCGS, Unit 1 are Messrs. Walter Djordjevic, Todd A. Bacon, and Tony Perez, all of S&A. Mr. Djordjevic is designated the Peer Review Team Leader. None of the aforementioned engineers is involved in the seismic walkdown inspection process so that they can maintain their independence from the project. Mr. Djordjevic is an advanced degree structural engineer, has over thirty years of nuclear seismic experience and has been trained as a Seismic Capability Engineer (EPRI SQUG training), EPRI IPEEE Add-on, Seismic Fragility and Seismic Walkdown Engineer (SWE). Mr. Bacon is a civil-structural engineer with over thirty years of nuclear engineering experience and has received the Seismic Walkdown Engineer (SWE) training. Mr. Perez is a mechanical engineer with 15 years of experience and a trainee in a 9 month Senior Reactor Operator Certificate training program. Mr. Djordjevic, as Peer

[1] EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012.

Review Team Leader, has participated in all phases of the peer review process for OCGS Unit 1.

The SWEL development was performed by Mr. T. K. Ram of S&A. No findings were cited on the peer review checklist. The completed SWEL Peer Review Checklist is found in Attachment 1. The discussion for the SWEL development peer review is found in Section 2.

The peer review of the seismic walkdown inspection started on August 23, 2012 with a peer check of the actual walkdowns for Unit 1. Mr. Bacon joined the walkdown team for a portion of the day's planned walkdowns to observe the conduct of walkdowns and adherence to the SWG. Interviews were conducted by Messrs. Bacon and Djordjevic with the SWE inspection team after review of a sample of the Unit 1 Seismic Walkdown Checklists (SWCs) and the Area Walk-by Checklists (AWCs) to ascertain procedural compliance with the SWG. The interviews were conducted with Mr. Mark Etre of the SWE inspection team on October 1, 2012 and Mr. Seth Baker of the SWE walkdown inspection team on October 2, 2012. The discussion of the sample SWCs and AWCs is provided in Section 3.

No issues were identified which challenged the current licensing basis.

2 Peer Review - Selection of SSCs

2.1 PURPOSE

The purpose of this section is to describe the process to perform the peer review of the selected structures, systems, and components, (SSCs) that were included in the Seismic Walkdown Equipment List (SWEL).

This section documents the Peer Review – Selection of SSCs performed for Oyster Creek Generating Station – Unit 1.

2.2 PEER REVIEW ACTIVITY – SELECTION OF SSCS

The guidance in EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012, Section 3: Selection of SSCs was used as the basis for this review.

This peer review was based on reviews of the following documents:

- Seismic Walkdown Interim Report, Revision 2, dated 08/10/2012

This peer review was based on interviews with the following individual who was directly responsible for development of the SWEL:

- Mr. Tribhawan (TK) Ram, Senior Mechanical Engineer

This peer review utilized the checklist shown in the SWG, Appendix F: Checklist for Peer Review of SSC Selection.

For SWEL 1 development, the following actions were completed in the peer review process:

- Verification that the SSCs selected represented a diverse sample of the equipment required to perform the following five safety functions:
    - Reactor Reactivity Control (RRC)
    - Reactor Coolant Pressure Control (RCPC)
    - Reactor Coolant Inventory Control (RCIC)
    - Decay Heat Removal (DHR)
    - Containment Function (CF)

  This peer review determined that the SSCs selected for the seismic walkdowns represent a diverse sample of equipment required to perform the five safety functions.
- Verification that the SSCs selected include an appropriate representation of items having the following sample selection attributes:
    - 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

This peer review determined that the SSCs selected for the seismic walkdowns include a sample of items that represent each attribute/consideration identified above.

For SWEL 2 development, the following actions were completed in the peer review process:

- Verification that spent fuel pool related items were considered and appropriately added to SWEL 2.

  This peer review determined that spent fuel pool related items were given appropriate consideration. Portions of the spent fuel pool cooling system are classified as Seismic Category 1 (Class I) and SWEL 2 was sufficiently populated as appropriate. There were items identified as potentially related to rapid drain down and these items were added to SWEL 2 as appropriate.

- Verification that appropriate justification was documented for spent fuel pool related items that were not added to the SWEL 2.

  This peer review determined that an appropriate level of justification was documented for those items related to the spent fuel pool that were not added to SWEL 2.

2.3 PEER REVIEW FINDINGS – SELECTION OF SSCS

This peer review found that the process for selecting SSCs that were added to the SWEL was consistent with the process outlined in the SWG Section 3: Selection of SSCs.

The peer review checklist is attached to this document with additional findings documented as appropriate.

This peer review resulted in no additional findings.

2.4 RESOLUTION OF PEER REVIEW COMMENTS – SELECTION OF SSCS

All comments requiring resolution were incorporated prior to completion of this peer review.

2.5 CONCLUSION OF PEER REVIEW – SELECTION OF SSCS

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 the SWG, Section 3: Selection of SSCs. It is further concluded that the SWEL sufficiently represents a broad population of plant Seismic Category 1 (Class I) equipment and systems to meet the objectives of the NRC 50.54(f) letter.

3 Review of Sample Seismic Walkdown & Area Walk-Bys Checklists

3.1 Overview

A peer review of the SWCs and AWCs was performed on August 23, 2012, after which an interview was conducted by Messrs. Djordjevic and Bacon with the SWE inspection team in accordance with the SWG requirements on October 1 and 2, 2012. The SWE trained walkdown engineers were Messrs. Mark Etre and Seth Baker.

3.2 Sample Checklists

Table 3-1 lists the SWC and AWC samples which represent approximately 25% of the SWCs and 25% of the AWCs. The sample includes the equipment inspected during the peer review participation and other equipment items from other classes to introduce diversity to the sampling procedure.

Table 3-1: *Table of SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1*

Equipment Identification	Equipment Class (GIP)	Walkdown Item	Observations
1A2-460V XF	4 - Transformers	USS 1A2-460V Trans. 4160-480V/277V 3PH 60HZ	No concerns
1A21A-460V	1 - Motor Control Centers	MCC 1A21A 460V,3P,3W,60HZ for Reactor Building	No concerns
7R	1 - Motor Control Centers	Main Control Room Panel 7R Reactor Protection CH.2	No concerns
305-125\26-19	21 - Tanks and Heat Exchangers	Main Control Room Panel 7R Reactor Protection CH.2	No concerns
Battery Bank C	15 - Batteries on Racks	Vital Bank 'C' Station Battery (Lead Acid)	No concerns
CV-305-126\30-03	7 - Fluid Operated Valves	CRD Inlet Scram Valve (South)	No concerns

Equipment Identification	Equipment Class (GIP)	Walkdown Item	Observations
CV-305-127\30-03	7 - Fluid Operated Valves	CRD Outlet Scram Valve (South)	No concerns
DC-C 125V	14 - Distribution Panels	125VDC Power Panel DC-C Center 'C'	No concerns
DG-1 SWGR	20 - Instrumentation and Control Panels and Cabinets	Diesel Generator No.1 Unit Switchgear	No concerns
DPT-6-IA0091B	18 - Instruments on Racks	Fuel Zone Level 'B' Wide Range Level Transmitter	No concerns
FN-732-3	9 - Fans	USS 1A2-460V Transformer Cooling Fan	No concerns
H-21-1A	21 - Tanks and Heat Exchangers	Cont. Spray System Heat Exchanger 1-1	No concerns
LI-18-170	18 - Instruments on Racks	Skimmer Surge Tank 'A' Fuel Pool Level Indicator	No concerns
LS-862-10C	0 - Other	Hi-Hi Level(Pump Cut-off) On Tank T-39-003	No concerns
LSP-1A2	20 - Instrumentation and Control Panels and Cabinets	Local Shutdown Panel- USS 1A2 Pump/Breaker Control	No concerns
P-18-1C	5 - Horizontal Pumps	Augmented Spent Fuel Pool Pump (NN01-C)	No concerns
P-39-13	5 - Horizontal Pumps	Fuel Oil Pump to Day Tank T-39-3	No concerns
PI-305-131\06-15	0 - Other	Accumulators Gas Pressure Indicator	No concerns
PS-RE0017A	18 - Instruments on Racks	Low Reactor Press. Switch Readies Core Spray Valves	No concerns
RK-411-1	18 - Instruments on Racks	MSIV'S Solenoid Air Valve and Equipment Mounting Rack	No concerns

Equipment Identification	Equipment Class (GIP)	Walkdown Item	Observations
SO-305-117\06-15	8 - Motor-Operated and Solenoid-Operated Valves	Channel I Scram Air Pilot Solenoid Valve (North)	No concerns
SO-305-120\06-15	8 - Motor-Operated and Solenoid-Operated Valves	Directional Flow Control Withdraw Solenoid Valve (North)	No concerns
T-18-1A	21 - Tanks and Heat Exchangers	Skimmer Surge Tank 'A' For Spent Fuel Storage Pool	No concerns
T-39-5	21 - Tanks and Heat Exchangers	M-39-1 Cooling Water Tank	No concerns
V-1-7	7 - Fluid Operated Valves	Main Steam Line 'A' Outlet Isolation Valve(NS03-A)	No concerns
V-1-173	7 - Fluid Operated Valves	Electromatic Relief Valve NR108-A (South Header)	No concerns
V-17-212	8 - Motor-Operated and Solenoid-Operated Valves	SDC Loop 'A' Outlet Header Vent Valve	No concerns
V-18-80	0 - Other	PI-18-88 Isolation Valve	No concerns
V-20-15	8 - Motor-Operated and Solenoid-Operated Valves	"A" Containment Isolation Valve – SYS.I	No concerns
VACP-1 XF	4 - Transformers	120V Vital AC Power Panel Transformer 480/208/120V	No concerns

Area Walkdown Description	Observations
DGB Area 2 - El. 23.00'	No concerns
RB Area 6 - El. 51.00'	Bent hanger rod by airlock - IR 01402715.
RB Area 10 - El. 23.00'	No concerns
RB Area 15 - El. 51.00'	No concerns
RB Area 19 - El. 19.00'	No concerns
TB Area 25 - El. 23.00'	No concerns
OB Area 5 - El. 35.00'	No concerns

3.3 Evaluation of Findings

There were no findings that challenged the licensing basis. Tables 5-2 and 5-3 of the Seismic Walkdown Report (final submittal report) provide the lists of the issues identified for the equipment seismic walkdowns and area walk-bys.

The scaffolding and seismic housekeeping procedures were reviewed by the SWEs in order to gain a full understanding of the plant practices in regard to those procedures. There were no seismic concerns noted in Unit 1 with regard to scaffold erection. The scaffolds were properly tied off and braced, and properly tagged with respect to the procedure.

Concerning seismic housekeeping, there was one instance found throughout the plant concerning ladder storage adjacent to a tank. It can be concluded that OCGS, Unit 1 implements their seismic housekeeping program consistently and to a high standard.

Items identified during the Seismic Walkdowns and Area Walk-bys were ultimately not judged to be "Potentially Adverse Seismic Conditions", as summarized in Sections 5.2 and 5.3 of the Seismic Walkdown Report. There were minor instances of loose hardware (bolts/nuts) and a few bent hanger rods. There was an instance of an open s-hook on a light fixture. In all instances issues identified were judged that they would not prevent the equipment from performing its safety-related function.

The Seismic Walkdown Checklists document the details of all issues identified, the action taken and the conclusion rendered by the SWE inspectors.

The peer reviewers consider the judgments made by the SWEs to be appropriate and in concurrence with the SWG.

4 Review of Licensing Basis Assessments

Tables 5-2 and 5-3 of the Seismic Walkdown Report provide a list of the issues identified during the Unit 1 seismic walkdown inspections for the SWEL components and how they were addressed. If an Oyster Creek Generating Station IR request was generated it is shown in the Tables. Interviews were conducted by Messrs. Djordjevic and Bacon with the SWE inspection team on October 1 and October 2, 2012 to discuss the issues identified. No potentially adverse seismic conditions were identified that resulted in a seismic licensing basis evaluation. The peer reviewers concur with this outcome.

5 Review Final Submittal Report & Sign-off

The final submittal report has been reviewed by Messrs. W. Djordjevic, A. Perez and T. A. Bacon and found to meet the requirements of the EPRI 1025286 – Seismic Walkdown Guidance. The Peer Review determined that the objectives and requirements of the 50.54(f) letter[2] are met. Further, the efforts completed and documented within the final submittal report are in accordance with the EPRI guidance document.

[2] NRC 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 3, "Recommendation 2.3: Seismic," dated March 12, 2012

Peer Review Checklist for SWEL - Oyster Creek Generating Station - Unit 1

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☐
   No comments.

2. Does SWEL 1 include an appropriate representation of items having the following sample selection attributes:

   a. Various types of systems? Y☒ N☐
      No comments.

   b. Major new and replacement equipment? Y☒ N☐
      No comments.

   c. Various types of equipment? Y☒ N☐
      No comments.

   d. Various environments? Y☒ N☐
      No comments.

   e. Equipment enhanced based on the findings of the IPEEE (or equivalent) program? Y☒ N☐
      No comments.

Peer Review Checklist for SWEL - Oyster Creek Generating Station - Unit 1

f. Were risk insights considered in the development of SWEL 1? Y☒ N☐
No comments.

3. For SWEL 2:

a. Were spent fuel pool related items considered, and if applicable included in SWEL 2? Y☒ N☐
No comments.

b. Was an appropriate justification documented for spent fuel pool related items not included in SWEL 2? Y☒ N☐
No comments.

4. Provide any other comments related to the peer review of the SWELs.

None.

5. Have all peer review comments been adequately addressed in the final SWEL? Y☒ N☐

Tony Perez
Peer Reviewer #1: _____ Date: *08/31/2012*

Walter Djordjevic
Peer Reviewer #2: _____ Date: *09/02/2012*

Annex A

Updated Transmittal # 1

Contents of Annex A

Appendices

Tables

A1 Introduction

A1.1 PURPOSE

This updated transmittal report is being provided in compliance with the requirements contained in Enclosure 3 of the NRC 50.54(f) letter dated March 12, 2012 (Ref. 13). This new report section, Annex A, contains the results of the follow-on inspection activities that have been completed to address commitments contained in Exelon letter to the NRC, "180-day Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Seismic Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated November 19, 2012 (RS-12-177). Annex A, includes follow-on Seismic Walkdown results associated with NRC Commitment Nos. 1 and 2 listed in Enclosure 2 of the above Exelon letter. Additionally, the update includes the current status of the resolution of conditions found during the initial Seismic Walkdowns and Area Walk-Bys as documented in Tables 5-2 and Table 5-3, respectively, from Enclosure 1 of the above Exelon letter.

Commitment No. 1, for the completion of the 16 remaining inspection (SWEL) items previously deferred due to inaccessibility listed in Table E-1, remains open. This update documents the completion of 15 of the 16 inspection items in accordance with the individual item completion schedule. The remaining inspection item, listed in Table AE-1, will be completed by the original 4Q2018 (December 31, 2018) commitment date. A subsequent NRC transmittal will be issued to document results of this inspection and the completion of Commitment No. 1.

Commitment No. 2, for the completion of the 6 remaining internal electrical cabinet inspections listed in Table E-2, has been completed. All 6 inspection items were completed by the commitment date of 4Q2012 (December 31, 2012) and the results are documented in this update.

The initial NRC Transmittal report documented that 3 conditions identified during the Seismic Walkdowns, and listed in Table 5-2, remained open. This update documents that all 3 conditions are now resolved with all follow-on actions complete.

The initial NRC Transmittal report documented that 3 conditions identified during the Area Walk-Bys, and listed in Table 5-3, remained open. This update documents that all 3 conditions are now resolved with all follow-on actions complete.

Annex A, includes updates to each report section where the status has changed or new information is available in accordance with Section 8 of EPRI 1025286, "Seismic Walkdown Guidance – For Resolution of Fukushima Near Term Task Force Recommendation 2.3 Seismic" (Ref. 1).

A1.2 BACKGROUND

See Section 1.2

A1.3 PLANT OVERVIEW

See Section 1.3

A1.4 APPROACH

See Section 1.4

A1.5 CONCLUSION

As of December 31, 2012, Seismic Walkdowns have been completed at the Oyster Creek Generating Station Unit 1 on 15 of the16 items deferred due to inaccessibility along with 6 remaining supplemental inspections of electrical cabinets, in accordance with the NRC endorsed walkdown methodology. Area Walk-Bys were also completed, as required, during these follow-on activities. No degraded, nonconforming, or unanalyzed conditions that required either immediate or follow-on actions were identified.

Additional follow-on activities required to complete the efforts to address Enclosure 3 of the 50.54(f) letter include inspection of one item deferred due to inaccessibility, as listed in Table AE-1 of this Annex A.

As of January 18, 2013, all conditions identified during the walkdowns and walk-bys as documented in IRs listed in Table 5-2 and Table 5-3 have been corrected.

No IRs were generated during the follow-on walkdowns. The updated completion status for the previous IRs is shown in Table A5-2 and Table A5-3 in Section A5 of this Annex A.

A2 Seismic Licensing Basis

See Section 2, no new licensing basis evaluations resulted from the follow-on walkdown activities.

A3 Personnel Qualifications

A3.1 Overview

This section of the report identifies the personnel that 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 guidance document. Resumes provided in Appendix A, and Appendix AA in this Annex A, provide detail on each person's qualifications for his or her role.

A3.2 Project Personnel

Table A3-1 below summarizes the names and corresponding roles of personnel who participated in the NTTF 2.3 Seismic Walkdown effort.

Table A3-1. Personnel Roles

Name	Equipment Selection Engineer	Plant Operations	Seismic Walkdown Engineer (SWE)	Licensing Basis Reviewer	IPEEE Reviewer	Peer Reviewer
A. Perez						X(1)
K. Hull	X					
T.K. Ram	X					
M. Etre			X	X		
S. Baker			X	X		
W. Ho (Exelon)			X	X	X	
A. Osam-Duodu (Exelon)(3)						X
M. Hand (Exelon)(3)						X(2)
E. DeMonch (Exelon)		X				

Notes:
1. Peer Review Team member for SWEL review only.
2. Peer Review Team Leader.
3. Personnel for follow-on activities only. Resumes provided in Appendix AA.

A3.2.1 Stevenson & Associates Personnel

See Section 3.2.1, no new S&A personnel participated in the follow-on activities.

A3.2.2 Additional Personnel

See Section 3.2.2, the following additional Exelon personnel participated in the follow-on activities:

Exelon Engineering staff member Mr. Anthony Osam-Duodu is a member of the peer review team for updated transmittal #1. He has worked at Oyster Creek Generating Station since 2007. He has a Ph. D. in Civil Engineering from Columbia University, New York. He is also a Seismic Capability Engineer (SCE). Anthony has over 25 years of experience covering all aspect of Civil/Structural Engineering and Project Management. He has been involved in all aspects of plant modification/configuration change activities at Oyster Creek. Other activities include the following: SQUG walkdown/seismic evaluation, Equipment Dynamic Qualification Test reviews, Rigging evaluations, Lead Shielding, Scaffolding, Structural Monitoring, and other support activities.

Exelon Engineering Design staff member, Mr. Michael Hand, is Peer Review Team Leader for updated transmittal #1. Mr. Hand is a Structural Engineer, Level 3 and has worked at Oyster Creek since 2006. He holds the Seismic Capability Engineer (SCE) certification and is fully qualified to perform all aspects of structural/seismic SSC analysis, design and qualification. He also is Program Owner of the OC Structures Monitoring Program and ensures compliance with Maintenance Rule requirements. Mr. Hand has over 30 years experience in various aspects of civil/structural engineering and project management, including 13 years of nuclear experience, and is often called upon to mentor less experienced engineers.

A4 Selection of SSCs

See Section 4, no changes were made to the SWEL for the follow-on walkdowns.

A5 Seismic Walkdowns and Area Walk-Bys

A5.1 Overview

Follow-on Seismic Walkdowns and Area Walk-Bys were conducted by a two (2) person team of trained Seismic Walkdown Engineers (SWEs), in accordance with the EPRI guidance document during the fourth quarter of 2012. The Seismic Walkdowns and Area Walk-Bys are discussed in more detail in the following sub-sections.

Consistent with the EPRI guidance document, Section 4: Seismic Walkdowns and Area Walk-Bys, the SWEs used their engineering judgment, based on their experience and training, to identify potentially adverse seismic conditions. Where needed, the engineers were provided the latitude to rely upon new or existing analyses to support their judgment.

The SWEs conducted the Seismic Walkdowns and Area Walk-Bys together as a team. During the evaluations, the SWEs actively discussed their observations and judgments with each other. The results of the Seismic Walkdowns and Area Walk-Bys reported herein are based on the comprehensive agreement of the SWEs.

A5.2 Seismic Walkdowns

These follow-on Seismic Walkdowns focused on the seismic adequacy of the items previously deferred due to inaccessibility listed on Table E-1 of this report. The Seismic Walkdowns also evaluated the potential for nearby SSCs to cause adverse seismic interactions with the items being inspected. The Seismic Walkdowns focused on the following adverse seismic conditions associated with the subject equipment:

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

The results of the follow-on Seismic Walkdowns were documented in Appendix AC of this Annex A, using the Seismic Walkdown Checklist (SWC) template provided in the EPRI guidance document. Seismic Walkdowns were performed and SWCs were completed for 15 of the 16 items identified on Table E-1 of this report. Additionally, photos have been included with most SWCs to provide a visual record of the item along with any comments noted on the SWC. 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.

During the follow-on walkdowns, one item on Table E-1 was found energized and thus inaccessible. The walkdown of this item is deferred to a time when the equipment is accessible. Appendix AE of this Annex A 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.

A5.2.1 Adverse Anchorage Conditions

See Section 5.2.1, no adverse anchorage conditions were identified during the follow-on walkdowns.

A5.2.2 Configuration Verification

See Section 5.2.2, no additional configuration verification was required. However, the configuration of all accessible internal anchors of electrical cabinets was verified.

A5.2.3 Adverse Seismic Spatial Interactions

See Section 5.2.3, no adverse seismic spatial interactions were identified during the follow-on walkdowns.

A5.2.4 Other Adverse Seismic Conditions

See Section 5.2.4, no other adverse seismic conditions were identified during the follow-on walkdowns.

A5.2.5 Conditions Identification during Seismic Walkdowns

No conditions were identified during the follow-on walkdowns.

Per Section 5.2.5 and Table 5-2, during the previous Seismic Walkdowns five (5) conditions were identified and entered into the Corrective Action Program. Corrective actions were completed to address two (2) of the five (5) conditions. Subsequent to the issuance of the last report corrective actions were completed to address the remaining three (3) conditions. Table A5-2 of this Annex A provides an updated summary of the conditions and the status of the corrective actions to address these conditions.

A5.3 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 items being inspected. Vicinity is generally defined as the room containing the 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 item. Additional vicinity associated with these follow-on Seismic Walkdowns but not covered in Appendix D, is described on the Area Walk-By Checklist (AWC), shown in Appendix AD of this Annex A. A total of four (4) additional AWCs were completed for Oyster Creek Unit 1 as a result of these follow-on walkdowns.

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 Exelon Procedure MA-AA-796-024, Scaffold Installation Inspection and Removal
- Seismic housekeeping was examined to meet station procedure 119.5, Loose Equipment 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. Therefore, the Area Walk-By took significantly less time than it took to conduct the Seismic Walkdowns described above. 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 were documented on the AWCs included in Appendix AD of this Annex A. A separate AWC was filled out for each area inspected. A single AWC was completed for areas where more than one 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 Section 5.3 of this report.

A5.3.1 Conditions Identification during Area Walk-Bys

No conditions were identified during the Area Walk-Bys associated with the follow-on walkdowns.

Per Section 5.3.1 and Table 5-3, during the previous seismic walkdowns five (5) conditions were identified and entered into the Corrective Action Program. Corrective actions were completed to address two (2) of the five (5) conditions. Subsequent to the issuance of the last report corrective actions were completed to address the remaining three (3) conditions. Table A5-3 of this Annex A provides an updated summary of the conditions and the status of the corrective actions to address these conditions.

A5.4 SUPPLEMENTAL INFORMATION ON ELECTRICAL CABINET INSPECTIONS

See Section 5.4, these follow-on walkdowns completed the supplemental internal inspections of six (6) open items on Table E-2. No conditions were identified.

Components identified as "always energized" in Table E-2 were excluded from the inspections due to associated safety and operational hazard.

The Seismic Walkdown Checklists (SWC) for these six (6) components were documented in Appendix AC of this Annex A to indicate the results of these supplemental internal inspections.

Table A5-2. Conditions Identified during Seismic Walkdowns

Item ID	Description of Issue	Action Request ID (IR)	Actions Complete Yes/No
1A2-460V	Loose bolts at 1A2-460V USS	1403294	Yes
DC-F	Loose thermometer at DC-F panel	1406823	Yes
1A21B-460V MCC	Open hooks at 1A21B-460V MCC	1403305	Yes
H-21-1A	Broken bolts at containment spray heat exchangers H-21-1A and -1B	1403183	Yes
V-15-133	Seismic interaction between valves V-15-133 and V-6-2917	1403039	Yes

Notes:
1) "Yes" indicates that any corrective actions resulting from the issue are complete
2) "No" indicates that any corrective actions resulting from the issue are NOT complete. Actions are tracked by the IR number in the station CAP.

Table A5-3. Conditions Identified during Area Walk-Bys

Item ID	Description of Issue	Action Request ID (IR)	Actions Complete Yes/No
RK-3 Area	Bent hanger rod by RB 51' airlock.	1402715	Yes
Diesel Fuel Oil Storage	Loose ladder adjacent to diesel oil tank	1405874	Yes
A-480V Switchgear Room	Bent hanger rod at 1A23-460V MCC	1403359	Yes
4160V A&B Room	Loose nut at strap hanger adjacent to 1B-4160V switchgear	1405576	Yes
DG 1 Room	Mislabeled level indicators at EDG day tanks	1405561	Yes

Notes:
1) "Yes" indicates that any corrective actions resulting from the issue are complete
2) "No" indicates that any corrective actions resulting from the issue are NOT complete. Actions are tracked by the IR number in the station CAP.

A6 Licensing Basis Evaluations

See Section 6, no new licensing basis evaluations were performed as a result of conditions identified during the follow-on Walkdowns or Area Walk-Bys.

A7 IPEEE Vulnerabilities Resolution Report

See Section 7, no changes to the IPEEE vulnerabilities resolution were made for this Annex A.

A8 Peer Review

A peer review team consisting of at least two individuals was assembled and peer reviews were performed in accordance with Section 6: Peer Reviews of the EPRI guidance document. The Peer Review process included the following activities:

- Review of the selection of SSCs included on the SWEL, if the SWEL has been revised
- Review of a sample of the checklists prepared for the Seismic Walkdowns and Area Walk-Bys
- Review of Licensing basis evaluations, as applicable
- Review of the decisions for entering the potentially adverse conditions into the CAP process
- Review of the submittal report
- Provide a summary report of the peer review process in the submittal report

The peer reviews were performed independently from this report and the summary Peer Review Report is provided in Appendix AF of this Annex A.

A9 References

See Section 9, no new references were added for this Annex A.

Appendix AA
Project Personnel Resumes and SWE Certificates

Resumes and certificates (where applicable) for the following people are found in Appendix A:

Resumes and certificates (where applicable) for the following people are found in Appendix AA of this Annex A:

CURRICULUM VITAE

NAME: ANTHONY OSAM-DUODU

PROFESSION: CIVIL/STRUCTURAL ENGINEER

KEY QUALIFICATIONS:

Anthony Osam-Duodu has extensive experience as a Civil Engineer covering the areas of planning, design, and construction supervision. The over twenty five (25) years of experience cover all aspects of Civil Engineering and Project Management. He is also a Seismic Capability Engineer (EPRI SQUG training).

He has been involved in all aspects of plant modification/configuration change activities at Oyster Creek Generating Station. Other activities at the plant include the following: SQUG walkdown/seismic evaluation, Equipment Dynamic Qualification Test reviews, Rigging evaluations, Lead Shielding, Scaffolding, Structural Monitoring, and other support activities.
As a project manager/engineer on various civil engineering projects (as described in this Resume), Anthony has effectively performed the following Project Management activities:

- Responsible for all the services associated with the day-to-day administration of the contracts and the technical control of the various civil works.
- Ensured that works were carried out in accordance with the Technical Specifications and Contract Documents.
- Prepared reports for the various projects.
- Checked and certified interim and final payment certificates for contractors/vendors.

EDUCATION

1997 *Certificate,* Institution of Management and Public Administration (GIMPA).
World Bank/Works Procurement Management Course.

1980-86 *M.S. & Ph.D.* Civil Engineering, Columbia University, New York.

1977 *B.Sc.* Civil Engineering, University of Science and Technology, Ghana.

EMPLOYMENT RECORD

4/2007 - 6/2007 *Oyster Creek Generating Station*
& 9/2007 – Present Engineer III
Involved in all aspects of plant modification/configuration change activities at the plant. Other activities include the following: SQUG walkdown/seismic evaluation, Equipment Dynamic Qualification Test reviews, Rigging evaluations, Lead Shielding, Scaffolding, Structural Monitoring, and other support activities.

NOV. 2005 - OCT. 2006 *Icon Engineering, New Jersey.*
Project Engineer

Prepared the Engineering Report for three accessory building structures at the Bayonne Golf Club, New Jersey. The structures are the Storage Building, The Gate House, and the Comfort Station. Designed and supervised the said three structures at the Bayonne Golf Club.

JUNE 1995 - JULY 2005 *Department of Urban Roads, Accra.*
Principal Consulting Engineer

Performed field study of the various bridges/culverts in Metropolitan/Municipal Assembly areas in Ghana. This involved evaluation of the structural performance of said structures, design and supervision of their maintenance/rehabilitation.

MAR. 1993- MAY 1995 *The Consortium (CIHSD), Accra.*
Principal Consulting Engineer

Designed and supervision of a clinic and administration office structures for the Accra market. Accra Sewerage System Improvement/ Water Supply Improvement Study in association with Messrs. SOGREAH of France.

DEC. 1987- FEB. 1993 *Department of Environmental Protection, Trenton, NJ.*
Senior Engineer

Coordinated with and provided technical assistance to other Agencies, Divisions and Bureaus.

JUNE 1986- MAR. 1987 *Gibbs & Hill Consulting Engineers, New York.*
Structural Engineer

Assisted in the structural design of a nuclear plant in Texas.

SQUG

Presents this

Certificate of Achievement

To Certify That

Anthony Osam-Duodu

has Completed the SQUG Walkdown Screening and Seismic Evaluation Training Course Held August 23-27, 2010

Richard G. Starck II, MPR Associates, Inc.
SQUG Instructor

Paul D. Baughman, ARES Corporation
SQUG Instructor

MICHAEL J. HAND
Structural Engineer

EDUCATION

Bachelor of Science - Civil Engineering Technology, Fairleigh Dickinson University

EXPERIENCE

EXELON GENERATION, Oyster Creek Nuclear Generating Station, Forked River, NJ (July 2006 to Present)

STRUCTURAL ENGINEER (Level 3), Design structural plant modifications, defend plant design basis, manage Structures Monitoring Program and perform inspections, subject matter expert in seismic design and qualification of systems, structures and components using industry standards and methods such as SQUG-GIP, IEEE 344, EPRI, STERI, NARE, SQURTS. Perform System Manager duties for structural (building) systems such as Maintenance Rule reviews and project presentations. Requires thorough knowledge of 10CFR50 NRC regulations and industry guidelines. Mentor next generation of Structural Engineers in nuclear.

PORT AUTHORITY OF NEW YORK AND NEW JERSEY, Newark, NJ (2003 to 2006)

STRUCTURAL ENGINEER, Engineering Dept.-Quality Assurance Division; Perform structural condition inspections and prepare condition survey reports for various Port Authority structures such as buildings, bridges, tunnels, waterfront structures, and high mast lighting structures. Perform emergency structural integrity inspections and prepare design for temporary corrective repair as required. Duties include field audit and review of reports prepared by consultants.

INNOVATIVE ENGINEERING, Toms River, NJ (2001 to 2003)

SENIOR STRUCTURAL ENGINEER, Performed structural analysis and design for wireless telecommunications industry. Designed antenna and steel equipment frames on building rooftops and on grade. Required familiarity with applicable building and design codes such as AISC (steel), ACI (concrete), AITC (timber), NYC Building Code, IBC and BOCA Codes, and industry specifications such as EIA/TIA design standards. Qualified existing structures for additional loading. Used Staad.Pro frame analysis program and wrote programs in MS Excel for quick analysis of various steel and masonry configurations. Used Autocad 2000.

STRATUS ENGINEERING, Cranbury, NJ (2000 to 2001)

PROJECT MANAGER / STRUCTURAL ENGINEER, Managed project team of architects, structural engineers, designers and drafters for design and preparation of drawings and specifications for major structural modifications to the East River Power Plant in New York City. Included checking and verification of Staad.Pro computer model input for structural frame analysis. Designed a reinforced concrete, explosion-resistant gas compressor room. Also performed manual structural analyses for various concrete and steel structures for Consolidated Edison.

PORT AUTHORITY OF NEW YORK AND NEW JERSEY, Jersey City, NJ (1988 to 2000)

ENGINEERING PROJECT MANAGER / STRUCTURAL TASK LEADER, Engineering Dept.; Managed preparation of multi-discipline construction plans and specifications for the repair of deteriorated runways, taxiways, railroad facilities, roadways, bridges, buildings and tunnels at various PA facilities, Develop baseline schedules, cost plans and project scope through contact and negotiations with client Line Department. Duties included preparation of "short form" contracts, reviewing and analyzing bid results, and recommending award of contract. Also managed consultants in performing the above mentioned design services, to ensure that contract documents are prepared in conformance with Port Authority standards, on time and within budget. Coordinated several groups in project effort including other governmental agencies and outside interests.

Port Authority Awards:

- *"James G. Hellmuth Unit Citation Award", 1998* for the Rehabilitation of Runway 4R-22L, Newark Int. Airport; Managed and coordinated project team from all Engineering Department divisions for successful completion of record setting overlay of deteriorating runway in preparation of new, larger aircraft. Required presentations to, and coordination with airline representatives to obtain 30% reduction in aircraft departures to allow for an unprecedented continuous two-week closure in lieu of a 6-9 month intermittent nighttime closure.
- *"Engineering Excellence Award", 1997* for five years perfect attendance.

MICHAEL J. HAND

PROJECT MANAGER, STRUCTURAL INTEGRITY UNIT, RAIL PLANNING DIV., PATH; Provided Project Management (Stage I-IV) services essential to the structural integrity, maintenance and rehabilitation of PATH structures. Addressed priority structural repairs through implementation of the major works program. Responded to real and perceived structural integrity issues presented by the facility, with follow-up for resolution as required. Acted as principal link between facility, Engineering Department, and other departments and outside entities.

STONE AND WEBSTER ENGINEERING CORP., New York, NY (July 1987 to November 1987)

STRUCTURAL ENGINEER; Qualification and analysis of pipe supports by manual calculation and computer analysis for the Sequoia Nuclear Power Plant, Tennessee Valley Authority. Included use of ASME Codes, AISC and AWS Specifications and STRUDL computer program frame analysis.

GIBBS & HILL, INC., New York, NY (1985 to 1987)

ASSOCIATE STRUCTURAL ENGINEER, FIELD ENGINEER; Qualified various steel frames and connections for the Comanche Peak Nuclear Power Plant, TX. Position required manual calculation and computer analysis capabilities as well as analysis by computer program. At the Susquehanna Steam Electric Station, PA, checked structural integrity of changes made to cable tray supports. Routed and designed supports for electrical conduit and process piping.

NUCLEAR POWER SERVICES, INC., Secaucus, NJ (1981 to 1985)

STRUCTURAL ENGINEER; Determined loads in building steel due to pipe and conduit supports under seismic conditions for the Braidwood Nuclear Power Plant, Braidwood, Ill. Position required structural analysis capabilities as mentioned above.

FIELD ENGINEER; Resolved pipe support field installation problems presented by the craft at the Byron Nuclear Power Plant, Byron Ill., and the Perry Nuclear Power Plant, North Perry, OH. Position required a familiarity with pipe support erection tolerances, installation procedures, and welding methods and procedure (including AWS standards). Checked structural integrity of changes made to pipe supports by manual calculation. Also performed as-built field inspections on installed pipe supports and piping systems to ensure compliance with NRC I.E. Bulletin 79-14 specifications.

STRUCTURAL DESIGN ENGINEER; Analyzed pipe supports by manual calculation to ensure structural integrity using working stress methods with reference to ASME Section III Codes and AISC Specifications. Included STRUDL and BASEPLATE program computer modeling.

CERTIFICATIONS and TRAINING

Seismic Capability Engineer (SCE)
Engineer-In-Training (E-I-T) Certificate
Pursuing PE license in New Jersey
STAAD.PRO Training Certificate

Situational Leadership Training - Port Authority of NY & NJ
Management Training Series - Port Authority of NY & NJ

AFFILIATIONS

American Society of Civil Engineers,
American Institute of Steel Construction
National Society of Professional Engineers
Toastmasters International (Communication and Leadership Training) – *Past President*
The Engineering Advisory Group (at PANYNJ) – *Past President*

VOLUNTEER SERVICE: Boy Scouts of America - *Assistant Scoutmaster*
St. Rose of Lima Catholic Church – *Building Committee, Liturgical Minister*

SQUG

Certificate of Achievement

This is to Certify that

Michael J. Hand

has Completed the SQUG Walkdown Screening and Seismic Evaluation Training Course Held June 11-15, 2007

Richard G. Starck II, MPR Associates, Inc.
SQUG Instructor

Paul D. Baughman, ARES Corporation
SQUG Instructor

Appendix AC
Seismic Walkdown Checklists (SWCs)

Table AC-1 provides a description of each item, anchorage verification confirmation, a list of Area Walk-By Checklists associated with each item and comments of each Seismic Walkdown Checklist. All items in Table AC-1 were deferred items listed in Table E-1 of this report, and were accessible during the follow-on walkdowns.

Table AC-2 provides a description of each item subject to supplemental internal inspections. All items in Table AC-2 were electrical cabinets subject to Supplemental Internal Inspections as listed in Table E-2 of this report, and were accessible without safety and operational hazard.

Table AC-1. Summary of Seismic Walkdown Checklists

Component ID	DESCRIPTION	Anchorage Configuration Confirmed?	Area Walk-by	Comments
V-1-160	SAFETY RELIEF VALVE NR28D (SOUTH HEADER)	N/A	31	This is an In-Line Component
V-1-164	SAFETY RELIEF VALVE NR28H (NORTH HEADER)	N/A	32	This is an In-Line Component
V-1-173	ELECTROMATIC RELIEF VALVE NR108-A(SOUTH HEADER)	N/A	31	This is an In-Line Component
V-1-175	ELECTROMATIC RELIEF VALVE NR108-C(NORTH HEADER)	N/A	32	This is an In-Line Component
V-1-177	ELECTROMATIC RELIEF VALVE NR108-E(SOUTH HEADER)	N/A	31	This is an In-Line Component
V-16-1	CU INLET ISOLATION VALVE FROM REACTOR VESSEL	N/A	31	This is an In-Line Component
V-1-106	MAIN STEAM LINE 'A' DRAIN VALVE	N/A	30	This is an In-Line Component
V-1-7	MAIN STEAM LINE'A' OUTLET ISOLATION VALVE(NS03-A)	N/A	30	This is an In-Line Component
RK-411-1	MSIV'S SOLENOID AIR VALVE & EQUIPMENT MOUNTING RACK	N/A	29	Not one of the 50% for which an anchor configuration verification is required
V-1-10	MAIN STEAM LINE'B' OUTLET ISOLATION VALVE(NS04-B)	N/A	29	This is an In-Line Component
1A21-460V	MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING	YES	9	Supports are consistent with Drawing 3E-153-38-016 Rev 0
1A21B-460V	MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING	YES	7	Supports are consistent with Calculation C-1302-732-5320-014 Rev 0
1A23-460V	MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING	YES	9	See Seismic Qualification SQ-OC-1A23-460V-MCC Rev 1. Upper supports are consistent with Drawing 3E-153-38-016 Rev 0
1A2-460V	460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING	YES	11	See Seismic Qualification SQ-OC-1A2-460V-USS Rev 2. Partial Inspection opened one panel, however, could see approximately 1/3 of the total anchorages. No issues found. Therefore, the anchor Inspection is met. The other panels would not be opened by ops due to the fact that, this is always energized.
1C	4160V BUS 1C SWITCHGEAR	YES	28	See SQ-OC-1C-4160V Rev 03

Table AC-2. Summary of Seismic Walkdown Checklists for Supplemental Internal Inspections

Component ID	DESCRIPTION
BTCHG C1	'C' STATION BATTERY SOLID STATE STATIC CHARGER C1
DG-1 BATTERY CHARGER	DIESEL GENERATOR UNIT #1 BATTERY CHARGER
DG-1 SWGR	DIESEL GENERATOR #1 UNIT SWITCHGEAR
ER18A	CORE SPRAY/AUTO DEPRESS'N SYSTEM RELAY LOGIC PANEL
LSP-1A2	LOCAL SHUTDOWN PANEL- USS 1A2 PUMP/BREAKER CONTROL
1A21A-460V	MCC 1A21A 460V, 3P, 3W, 60HZ, FOR REACTOR BUILDING

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-160

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SAFETY RELIEF VALVE NR28D (SOUTH HEADER)

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 46.00 ft, 31

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-160

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SAFETY RELIEF VALVE NR28D (SOUTH HEADER)

Interaction Effects

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

Other Adverse Conditions

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

Comments

See Seismic Qualification SQ-OC-V-1-0160 Rev 0

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-160

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SAFETY RELIEF VALVE NR28D (SOUTH HEADER)

IMG_4478

IMG_4479

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-164

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SAFETY RELIEF VALVE NR28H (NORTH HEADER)

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 46.00 ft, 32

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-164

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SAFETY RELIEF VALVE NR28H (NORTH HEADER)

Interaction Effects

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

Other Adverse Conditions

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

Comments

See Seismic Qualification SQ-OC-V-1-0164 Rev 0

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

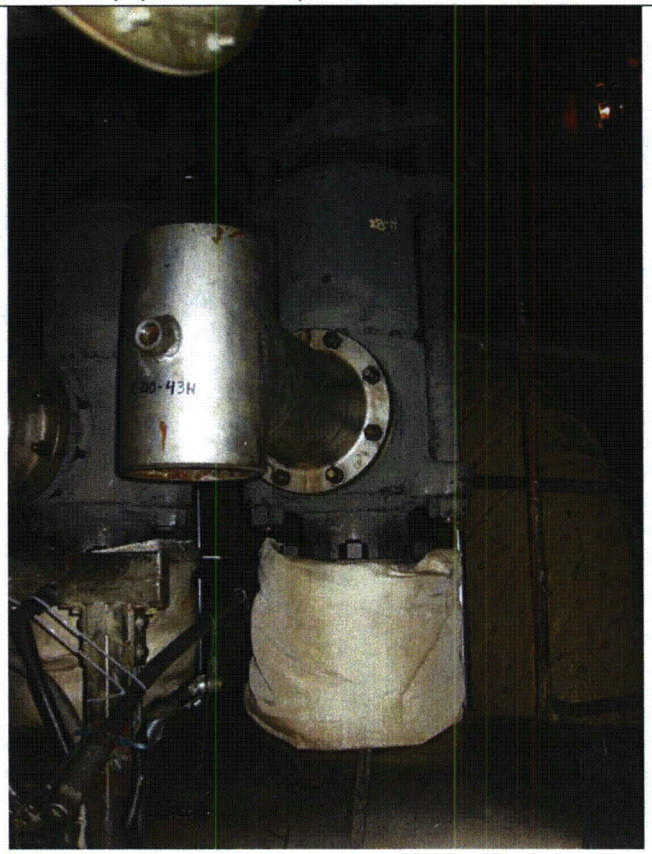
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-164

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: SAFETY RELIEF VALVE NR28H (NORTH HEADER)



IMG_4486

IMG_4487

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-173

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-A(SOUTH HEADER)

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 46.00 ft, 31

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-173

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-A(SOUTH HEADER)

Interaction Effects

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

Other Adverse Conditions

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

Comments

See Seismic Qualification SQ-OC-V-1-0173 Rev 0

Evaluated by: Mark S. Etre — Date: 10/26/2012

Seth W. Baker — 10/26/2012

Photos

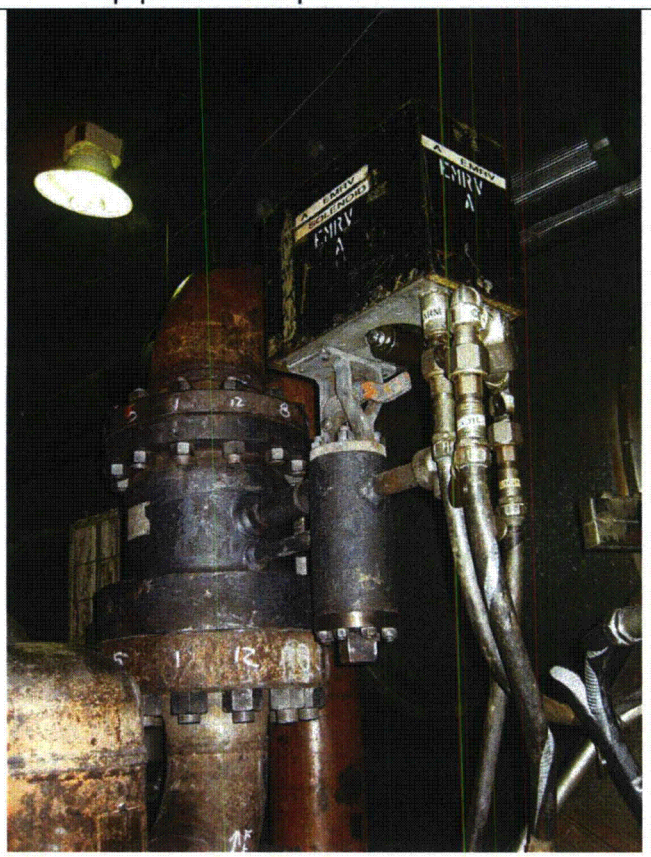
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

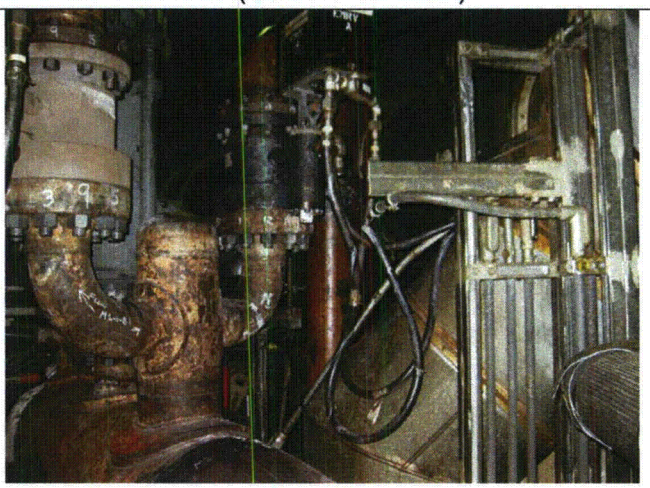
Equipment ID No.: V-1-173

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-A(SOUTH HEADER)



IMG_4488



IMG_4489

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-175

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-C(NORTH HEADER)

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 46.00 ft, 32

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-175

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-C(NORTH HEADER)

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? *Conduit Box partially open. Per operations this is being worked on during the Outage and will be repaired prior to start-up.*	Yes

Comments

See Seismic Qualification SQ-OC-V-1-0175 Rev 0

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

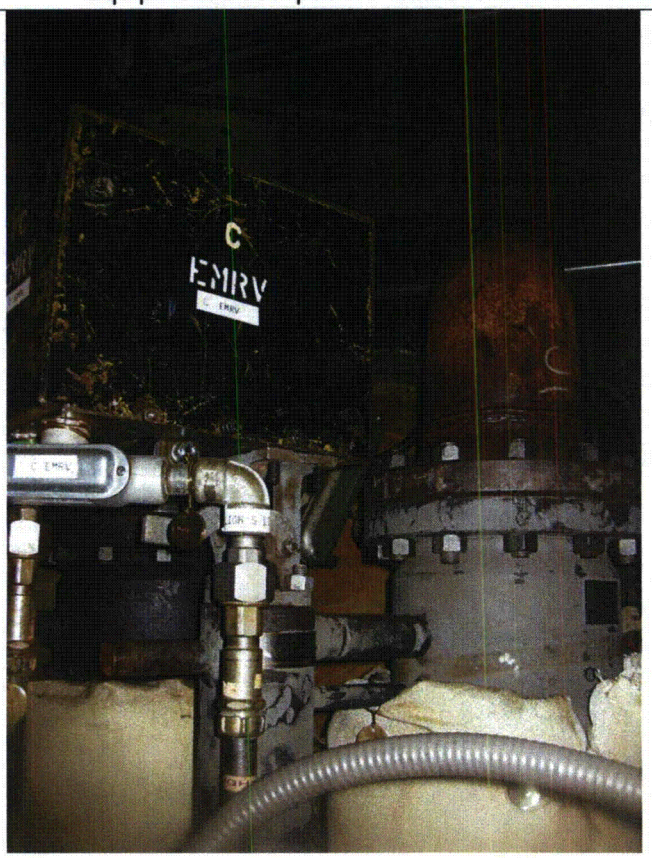
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-175

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-C(NORTH HEADER)



IMG_4482

IMG_4483

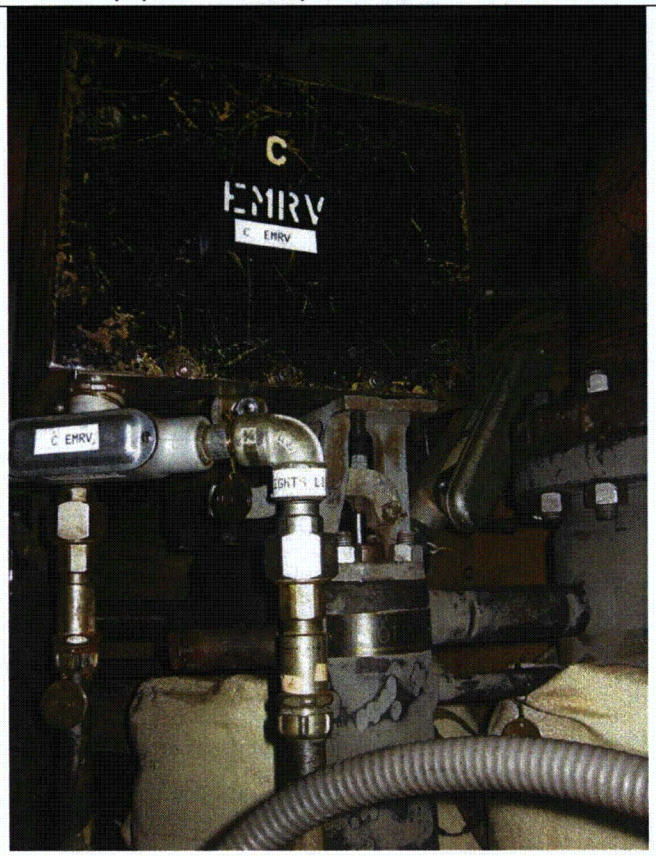
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-175

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-C(NORTH HEADER)



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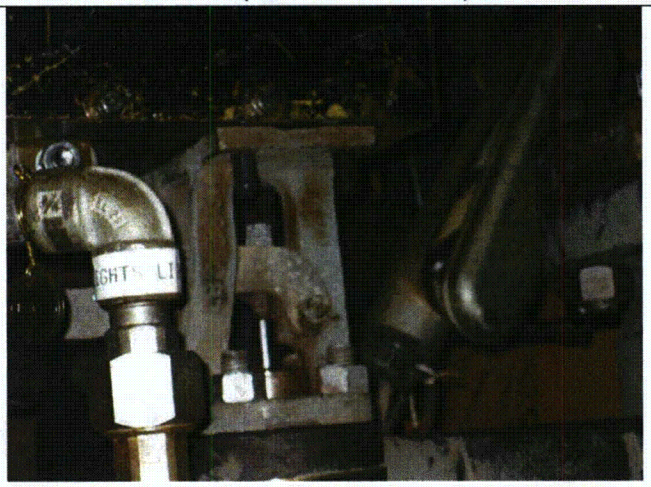


IMG_4485

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-177

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-E(SOUTH HEADER)

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 46.00 ft, 31

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-177

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-E(SOUTH HEADER)

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? *Minor damage to flexible conduit. Per operations this is being worked on during the Outage and will be repaired prior to start-up.*	Yes

Comments

See Seismic Qualification SQ-OC-V-1-0177 Rev 0

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

Status: [Y] N U

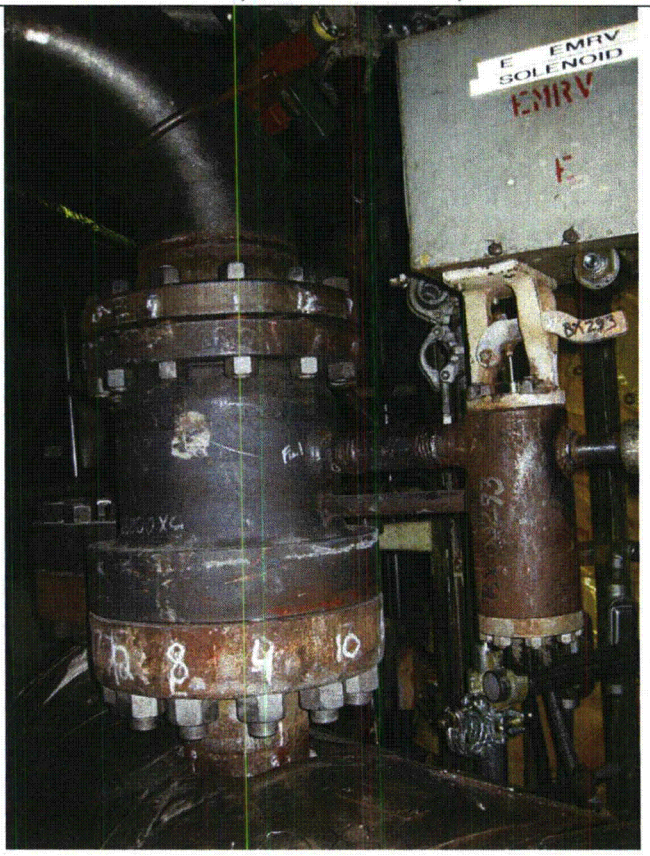
Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-177

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-E(SOUTH HEADER)

IMG_4474



IMG_4475

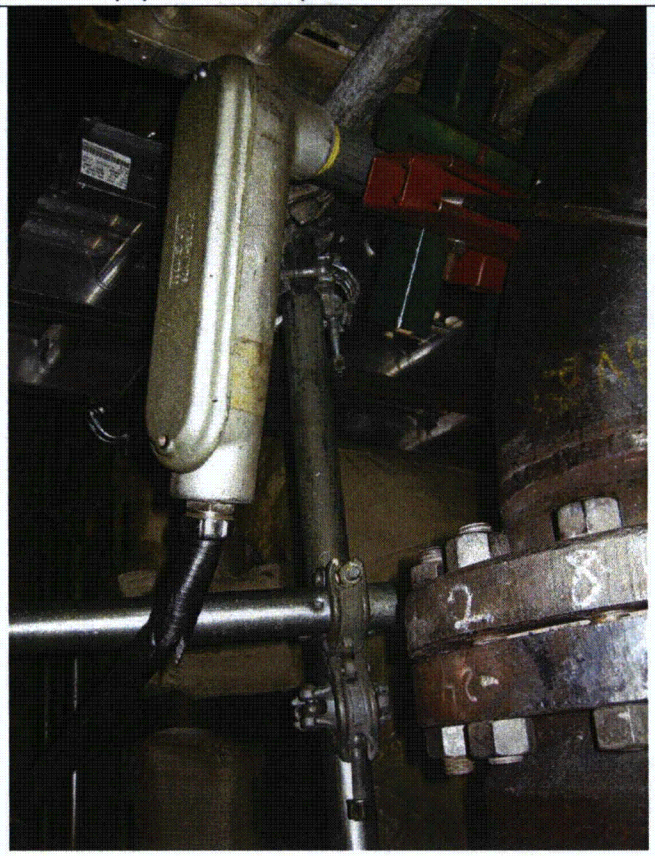
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-177

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ELECTROMATIC RELIEF VALVE NR108-E(SOUTH HEADER)



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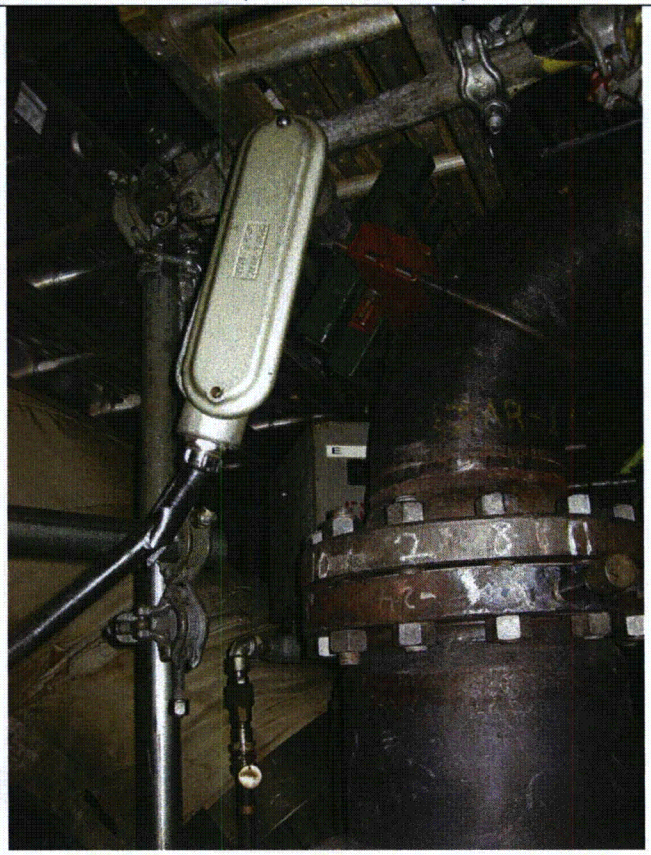


IMG_4477

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-16-1

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

Equipment Description: CU INLET ISOLATION VALVE FROM REACTOR VESSEL

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 46.00 ft, 31

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-16-1

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

Equipment Description: CU INLET ISOLATION VALVE FROM REACTOR VESSEL

Interaction Effects

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

Other Adverse Conditions

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

Comments

See Seismic Qualification SQ-OC-V-16-0001 Rev 0

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

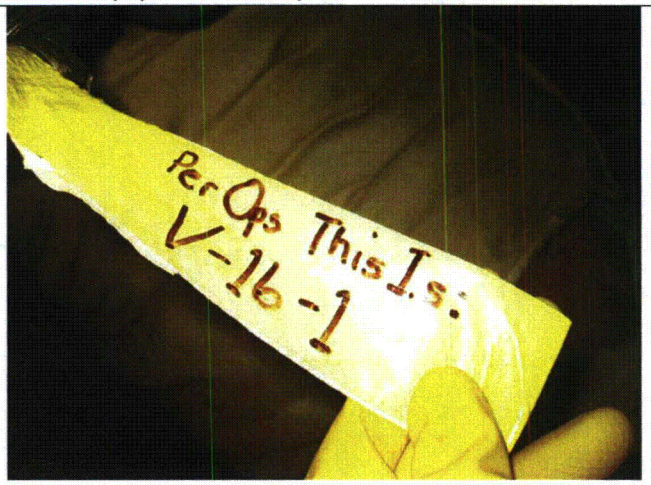
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

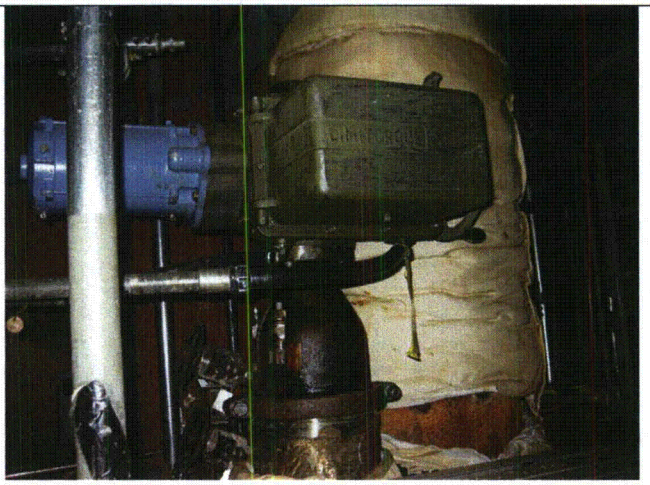
Equipment ID No.: V-16-1

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

Equipment Description: CU INLET ISOLATION VALVE FROM REACTOR VESSEL



IMG_4471



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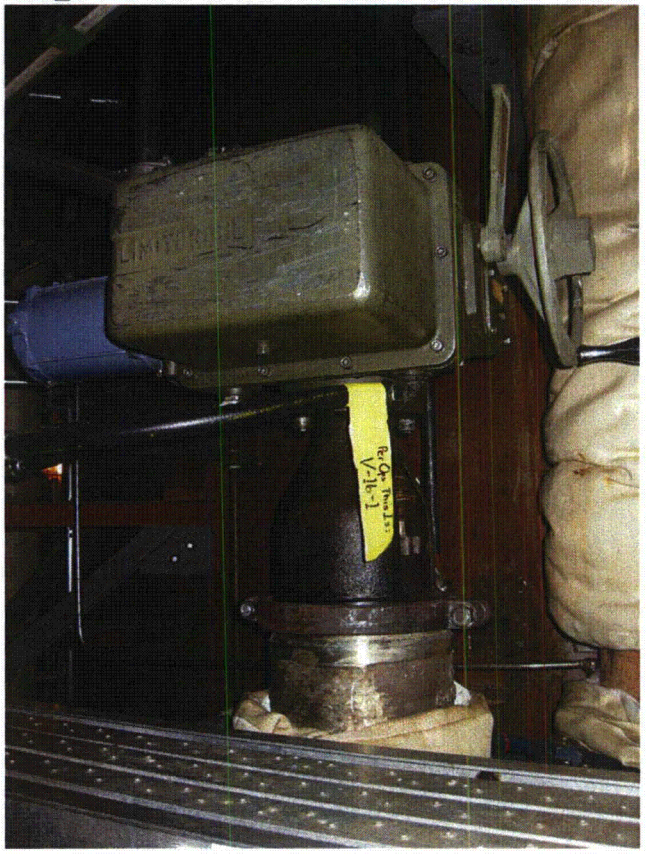


IMG_4473

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.:	V-16-1
Equipment Class:	(8) Motor-Operated and Solenoid-Operated Valves
Equipment Description:	CU INLET ISOLATION VALVE FROM REACTOR VESSEL

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-106

Equipment Class: (0) Other

Equipment Description: MAIN STEAM LINE 'A' DRAIN VALVE

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 23.00 ft, 30

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-106

Equipment Class: (0) Other

Equipment Description: MAIN STEAM LINE 'A' DRAIN VALVE

Interaction Effects

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

Other Adverse Conditions

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

Comments

ECR Number OC 09-00484 002 Modified this motor operated valve to a manual valve.

Evaluated by: Mark S. Etre — Date: 10/26/2012

Seth W. Baker — 10/26/2012

Photos

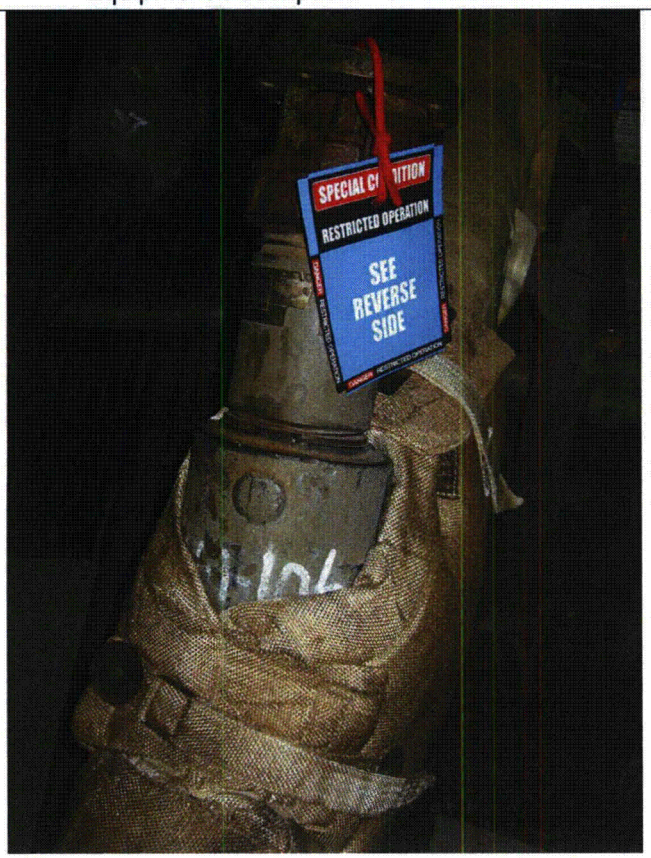
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

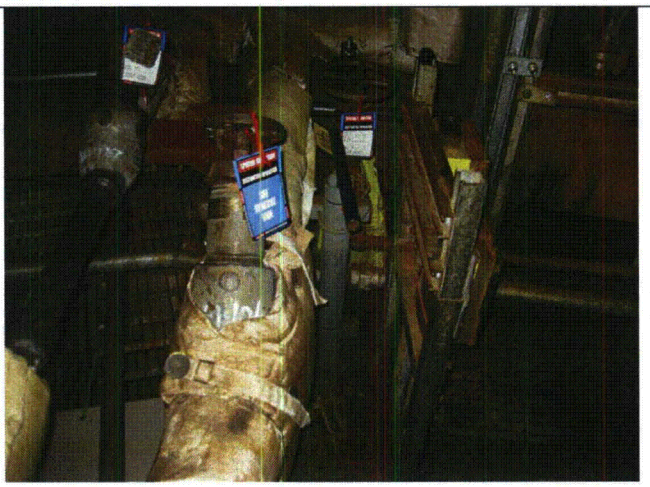
Equipment ID No.: V-1-106

Equipment Class: (0) Other

Equipment Description: MAIN STEAM LINE 'A' DRAIN VALVE



IMG_4465



IMG_4466

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-7

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'A' OUTLET ISOLATION VALVE(NS03-A)

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DW, 23.00 ft, 30

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-7

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'A' OUTLET ISOLATION VALVE(NS03-A)

Interaction Effects

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

   Nearby rack has adequate clearance to valve.

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

   Overhead lines well supported

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

   Welded airlines into valve provide ductile flexibility. The valve is failsafe, so rupture of air is no issue.

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

Other Adverse Conditions

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

Comments

See Seismic Qualification SQ-OC-V-1-0007 Rev 1

Valve packing is leaking. Per operations this is being worked on during the Outage and will be repaired prior to start-up.

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Status: [Y] N U

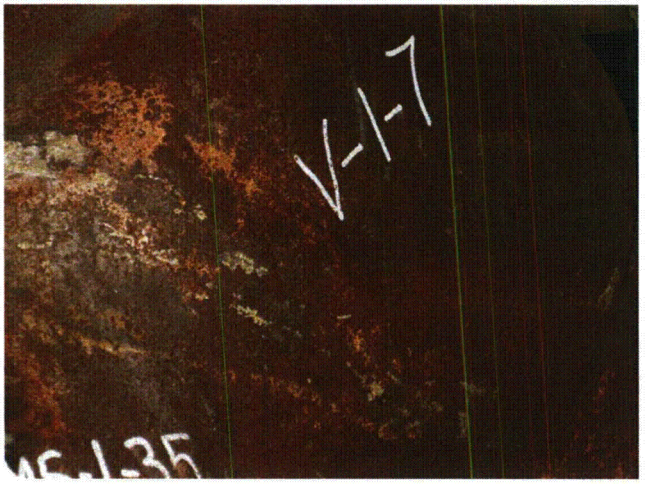
Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-7

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'A' OUTLET ISOLATION VALVE(NS03-A)

Photos



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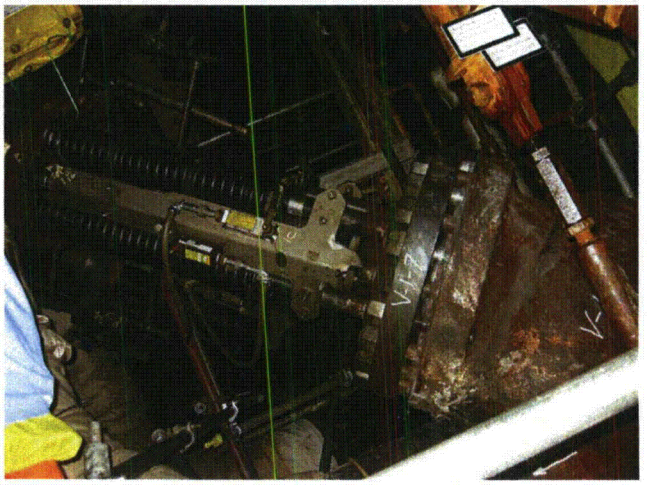
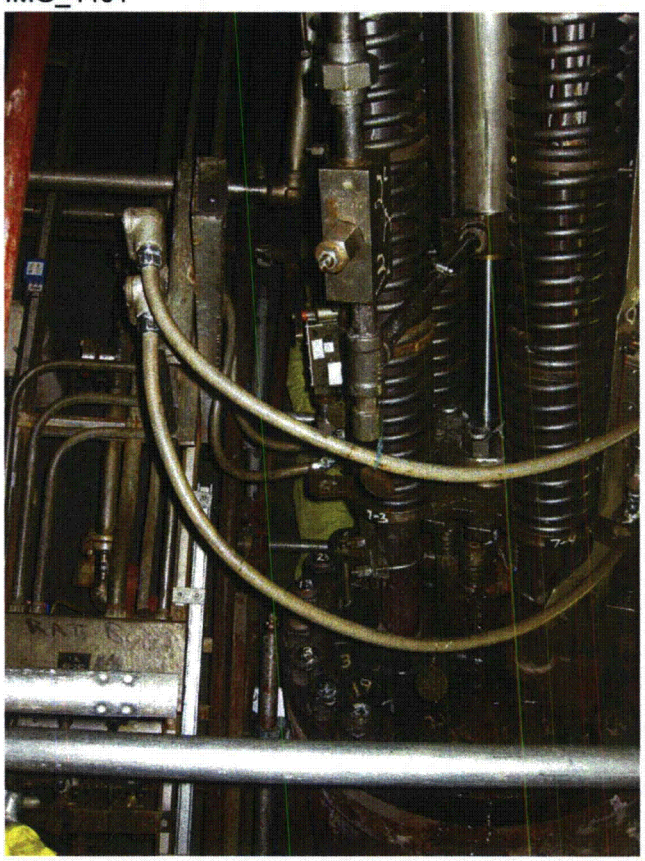


IMG_4462



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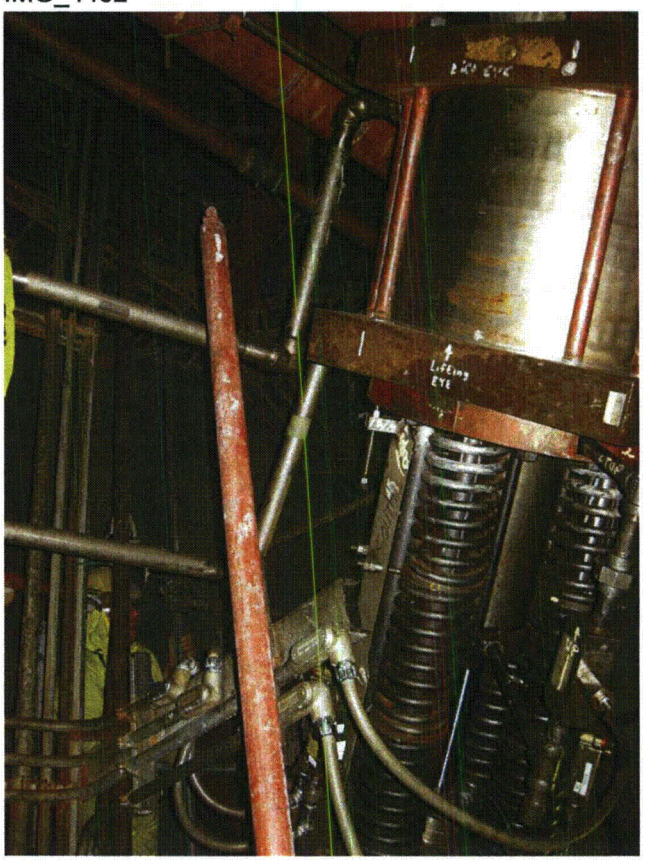


IMG_4464

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-7

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'A' OUTLET ISOLATION VALVE(NS03-A)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RK-411-1

Equipment Class: (18) Instruments on Racks

Equipment Description: MSIV'S SOLENOID AIR VALVE & EQUIPMENT MOUNTING RACK

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 29

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: RK-411-1

Equipment Class: (18) Instruments on Racks

Equipment Description: MSIV'S SOLENOID AIR VALVE & EQUIPMENT MOUNTING RACK

Interaction Effects

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

Other Adverse Conditions

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

Comments

See Seismic Qualification SQ-OC-RK-411-001 Rev 0

General housekeeping concerns regarding transient materials throughout area. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.
Surface oxidation present, but no apparent loss of cross section or strength.

Rack is adequately braced to wall.

Evaluated by: Mark S. Etre Mark S. Etre Date: 10/26/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

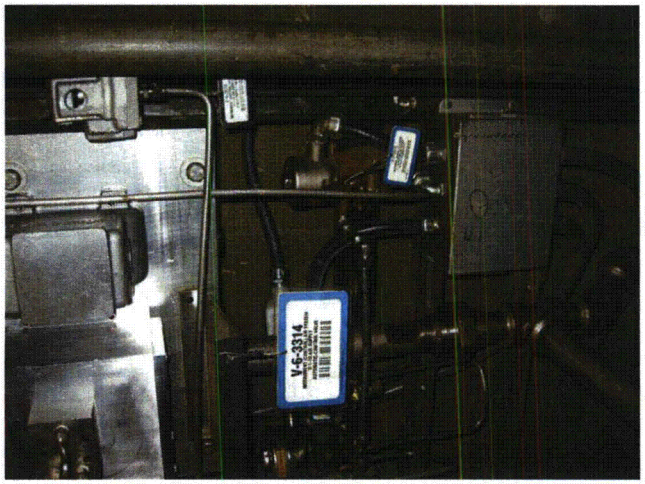
Equipment ID No.: RK-411-1

Equipment Class: (18) Instruments on Racks

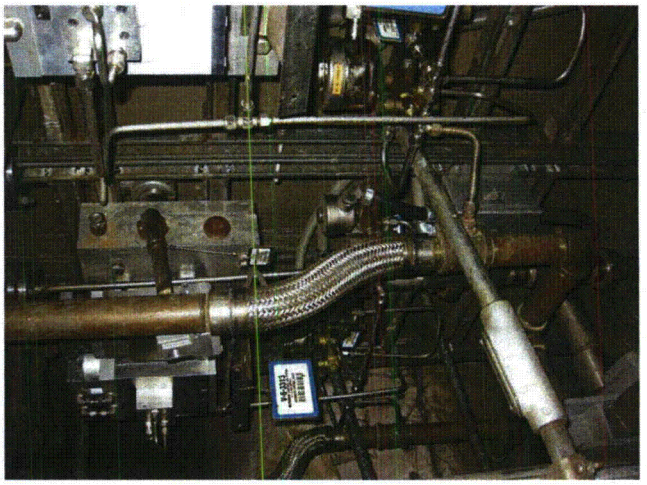
Equipment Description: MSIV'S SOLENOID AIR VALVE & EQUIPMENT MOUNTING RACK

Seth W. Baker 10/26/2012

Photos



IMG_4442



IMG_4443

IMG_4444

IMG_4445

Status: [Y] N U

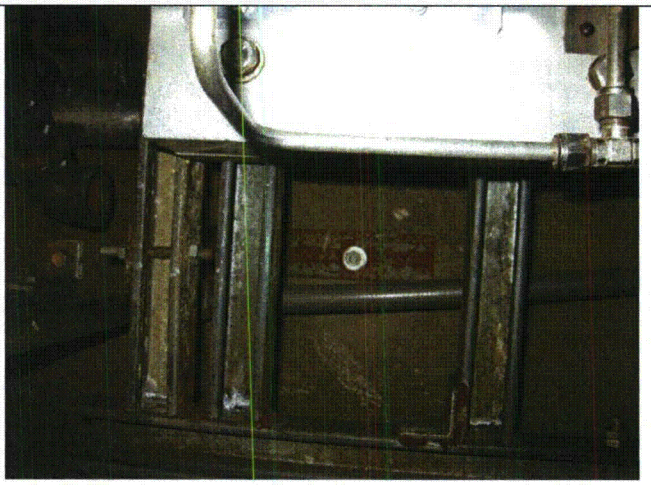
Seismic Walkdown Checklist (SWC)

Equipment ID No.: RK-411-1

Equipment Class: (18) Instruments on Racks

Equipment Description: MSIV'S SOLENOID AIR VALVE & EQUIPMENT MOUNTING RACK

IMG_4446



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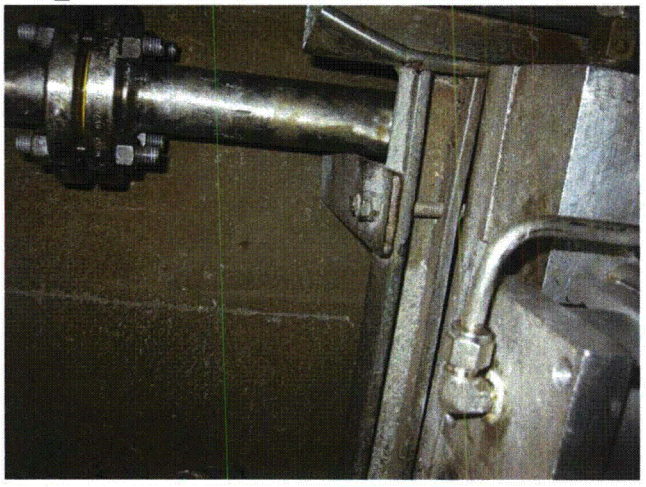

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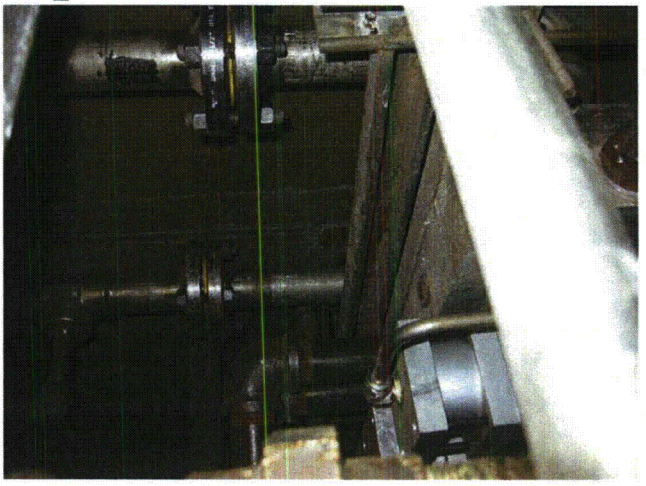


IMG_4449

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-10

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'B' OUTLET ISOLATION VALVE(NS04-B)

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 29

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-10

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'B' OUTLET ISOLATION VALVE(NS04-B)

Interaction Effects

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

Other Adverse Conditions

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

Comments

See Seismic Qualification SQ-OC-V-1-0010 Rev 1

General housekeeping concerns regarding transient materials throughout area. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Status: [Y] N U

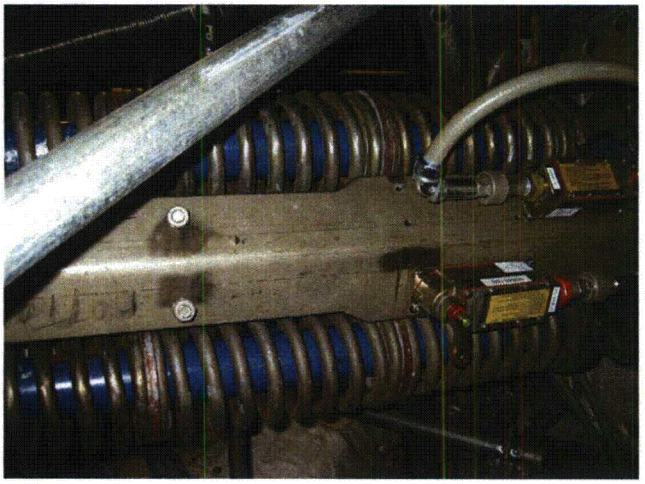
Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-10

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'B' OUTLET ISOLATION VALVE(NS04-B)

Photos



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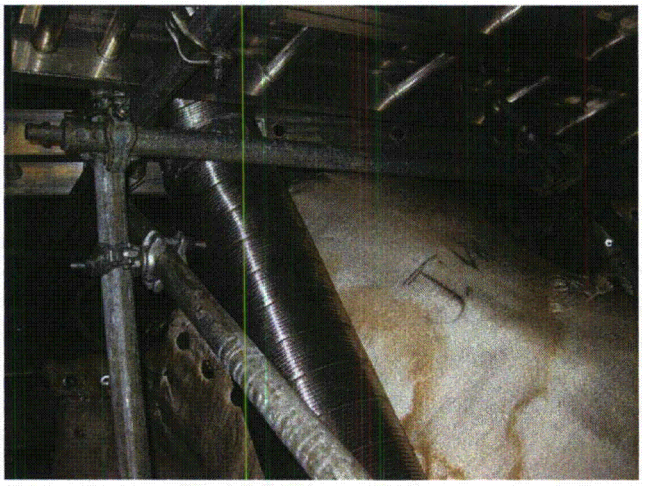

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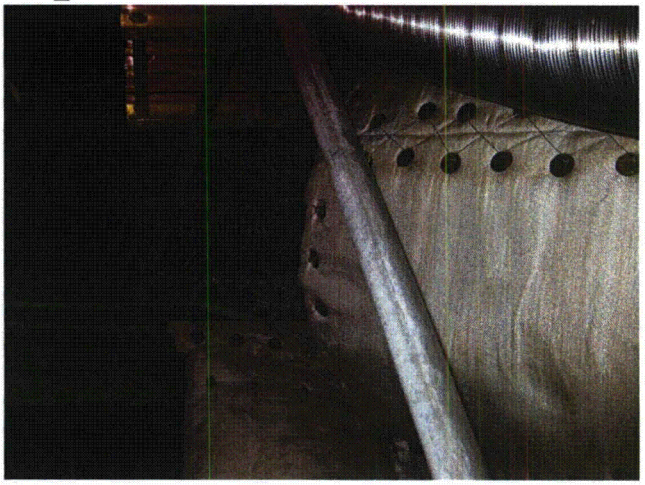

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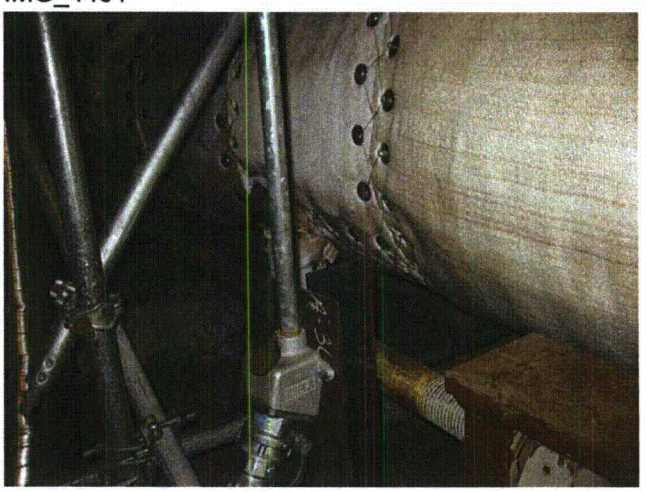


IMG_4453

Status: [Y] N U

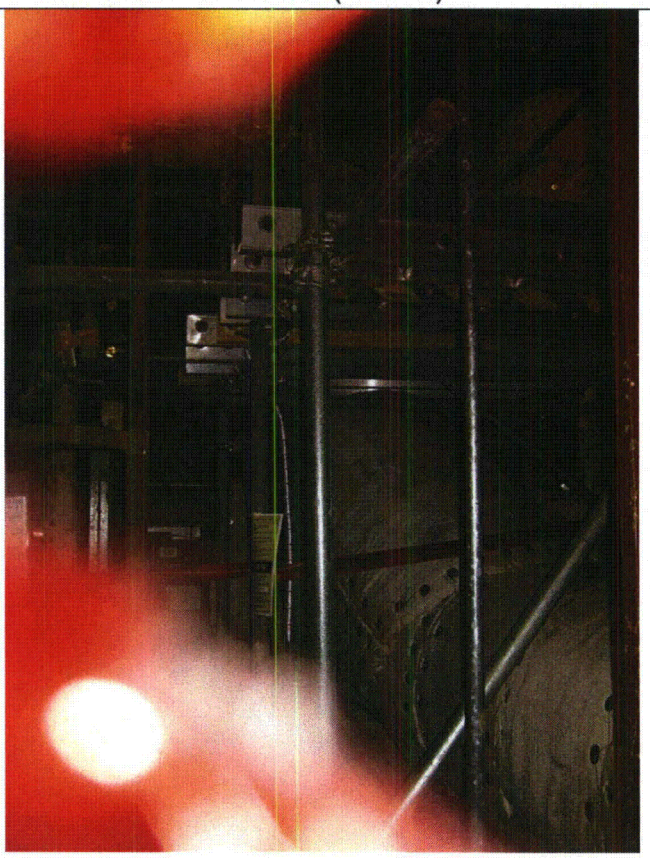
Seismic Walkdown Checklist (SWC)

Equipment ID No.: V-1-10

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM LINE'B' OUTLET ISOLATION VALVE(NS04-B)

IMG_4454



IMG_4455

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 09

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING

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? *Performed internal inspection and did not find any Other Adverse Conditions. The lower and side panels were opened. The Breakers were not removed. There were no issues found in the areas opened. There is no reason to believe that the areas in the buckets pose an issue and the intent of reviewing Other Adverse Conditions are satisfied.*	Yes

Comments

See Seismic Qualification SQ-OC-1A21-460V-MCC Rev 0

Supports are consistent with Drawing 3E-153-38-016 Rev 0

Calculation C-1302X-322C-A06 qualifies the Oyster Creek safety-related masonry walls for seismic to address NRC IE Bulletin 80-11.

Evaluated by: Mark S. Etre Mark S. Etre Date: 10/26/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

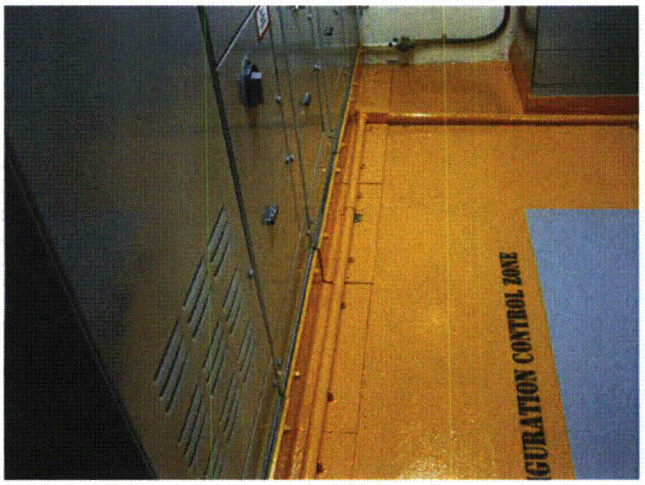
Equipment ID No.: 1A21-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING

Seth W. Baker 10/26/2012

Photos



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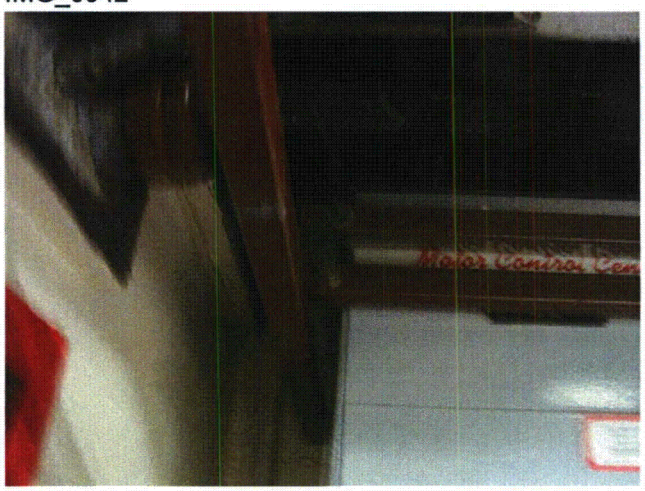
IMG_0944



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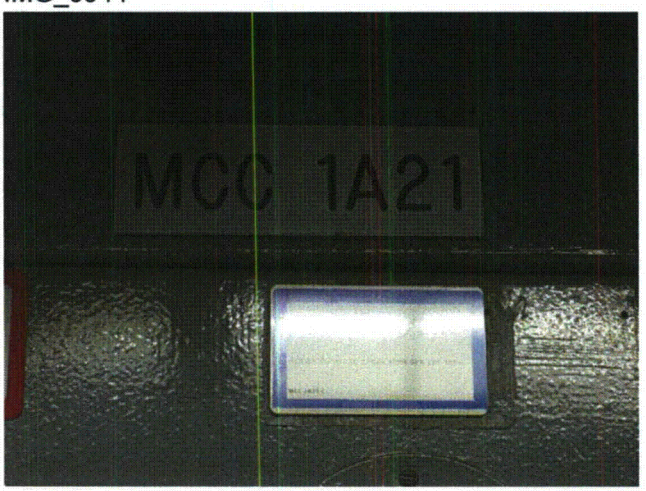


IMG_4505

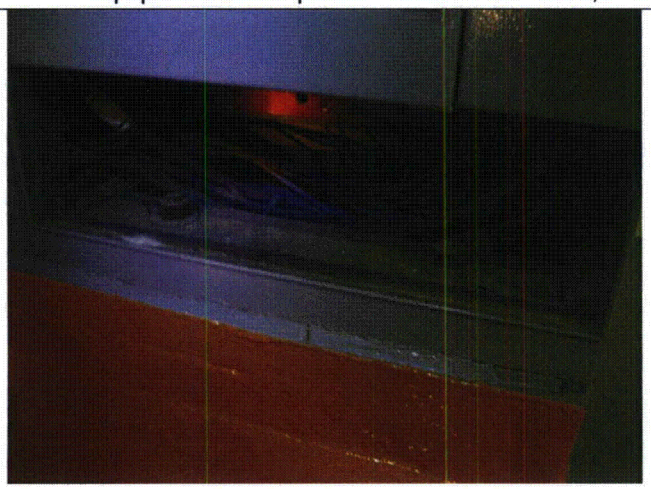
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING



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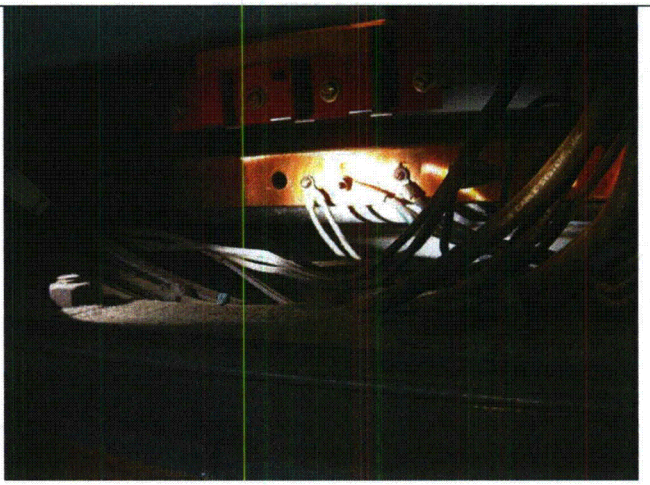

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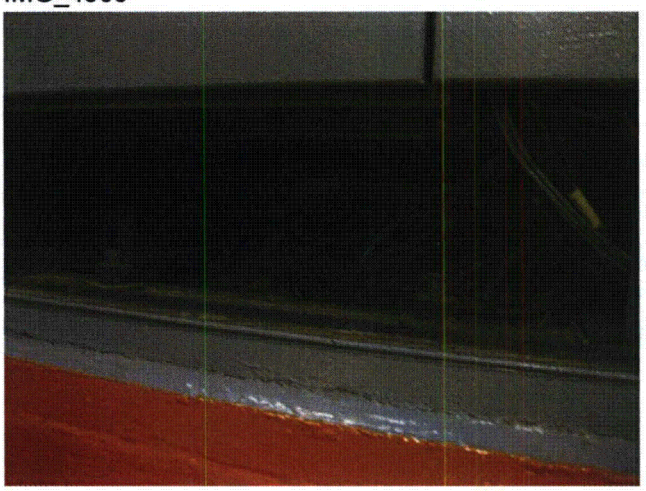

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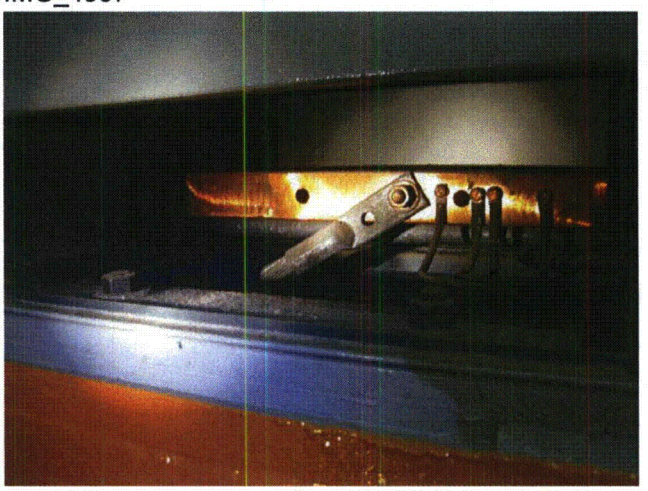


IMG_4510

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

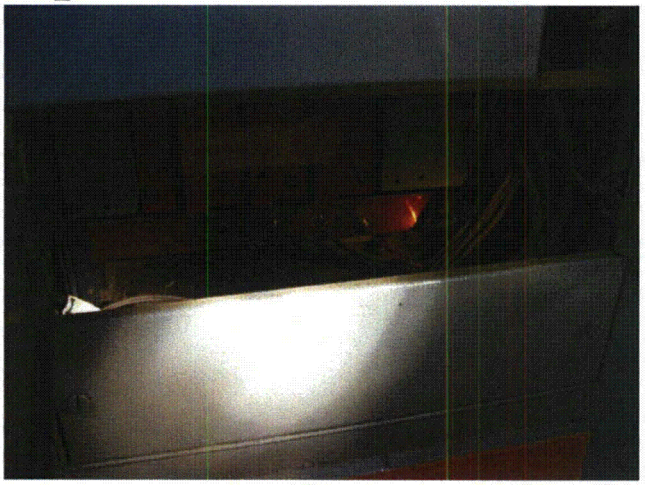
Equipment ID No.: 1A21-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING

IMG_4511

IMG_4512



IMG_4513

SQUG SEWS

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING

EBASCO SERVICES INCORPORATED
Two World Trade Center, New York, N.Y. 10048

EBASCO

April 29, 1981

GPU Services Incorporated
Attention: Mr. Leon Garibian
100 Interpace Parkway
Parsippany, NJ 07054

Dear Leon:

Re: OYSTER CREEK NUCLEAR STATION
FINAL SUBMITTAL OF MASONRY WALL
EVALUATION CALCULATION BOOKS

I am sending to you, together with this letter, 20 volumes of calculation books and 11 volumes of computer output. This will mark the end of our involvement for the re-evaluation of the Safety-Related Concrete Masonry Walls as required by NRC IE Bulletin 80-11.

Should you have any questions regarding the calculations and sketches, please do not hestitate to call. We will be glad to help.

Very truly yours,

E Odar

E Odar
Assistant Chief Civil Engineer

GW:dl

cc: K D Chiu
G Wu

C1302X322CA06 VOL 1, 19810427, REEVALUATION OF CONCRETE MASONRY WALL NRC IE BULLETIN 80-11 GENERAL

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21B-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 07

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21B-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING

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? *Performed internal inspection and did not find any Other Adverse Conditions. The lower and side panels were opened. The Breakers were not removed. There were no issues found in the areas opened. There is no reason to believe that the areas in the buckets pose an issue and the intent of reviewing Other Adverse Conditions are satisfied.*	Yes

Comments

See Seismic Qualification SQ-OC-1A21B-460V-MCC Rev 0

Supports are consistent with Calculation C-1302-732-5320-014 Rev 0

MCC is approximately 3" from large square column, the relative stiffness of the MCC is in the strong direction, it is unlikely to impact the column.

Evaluated by: Mark S Etre Mark S. Etre Date: 10/26/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21B-460V

Equipment Class: (1) Motor Control Centers

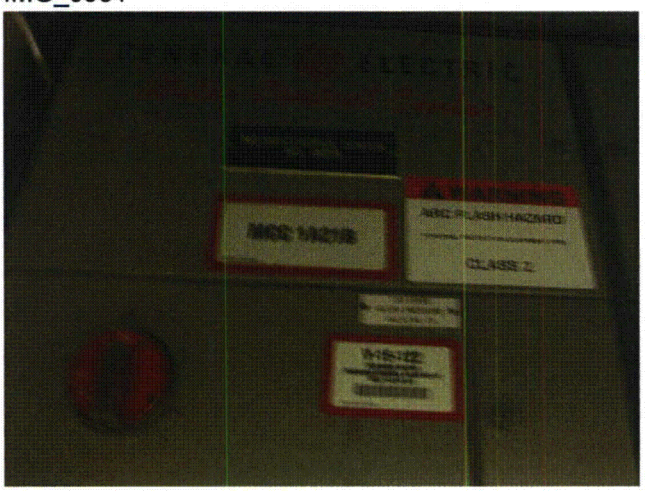
Equipment Description: MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING

Seth W. Baker 10/26/2012

Photos

IMG_0961

IMG_0964



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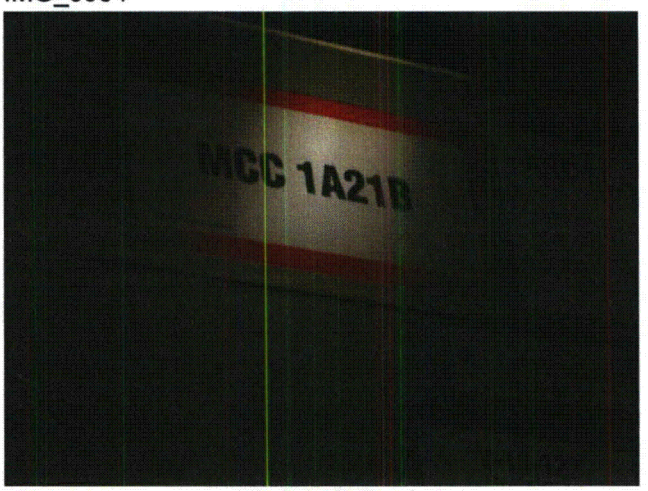


IMG_4524

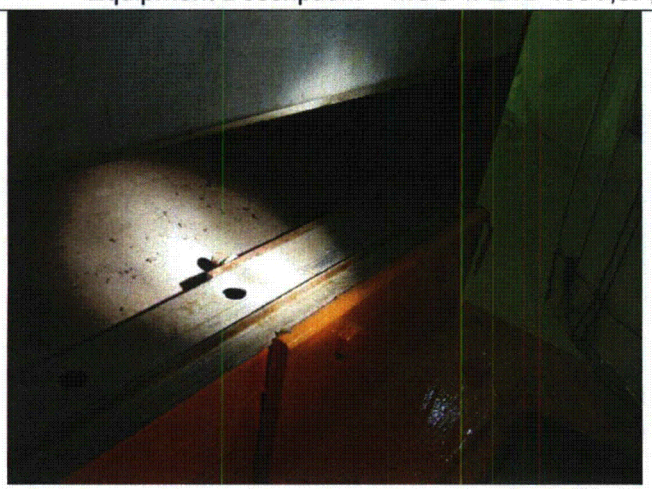
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21B-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING



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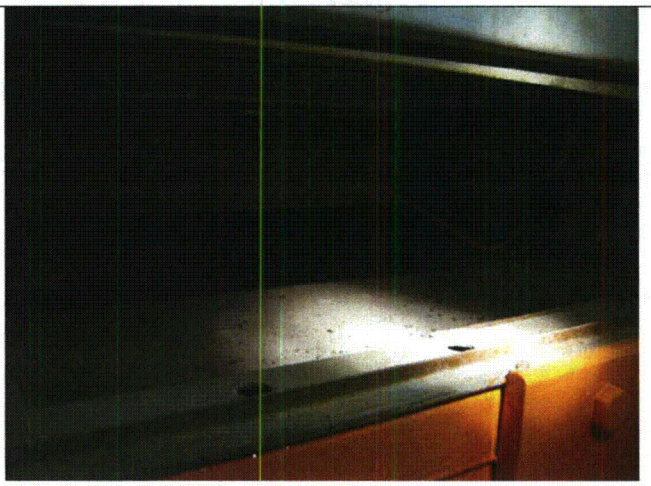

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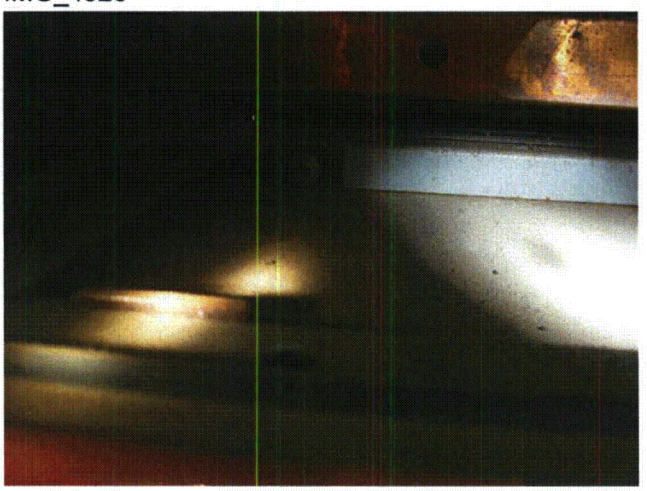


IMG_4528

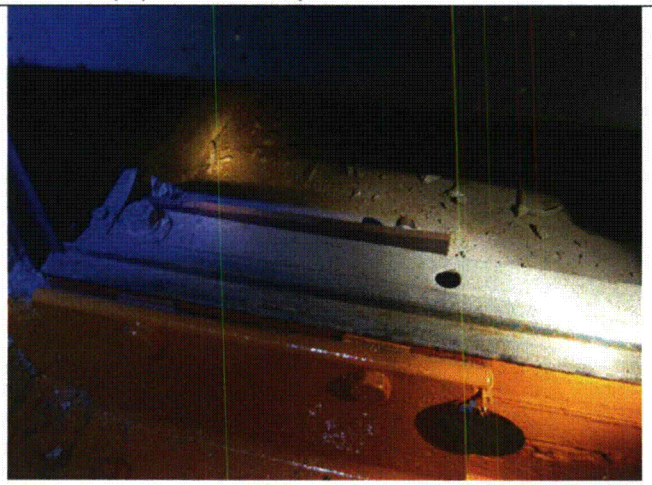
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A21B-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING



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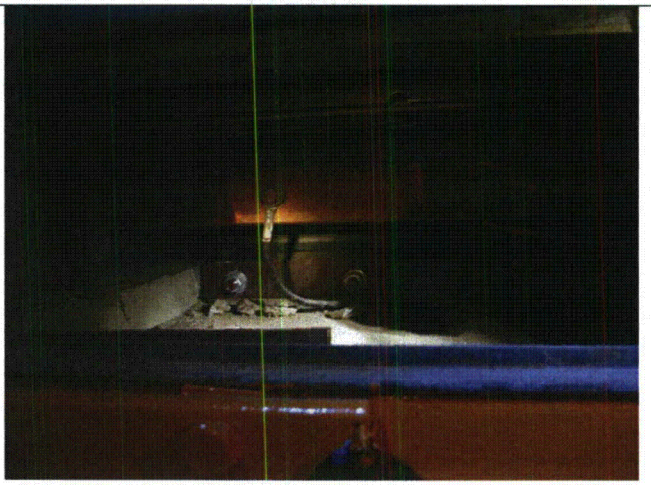

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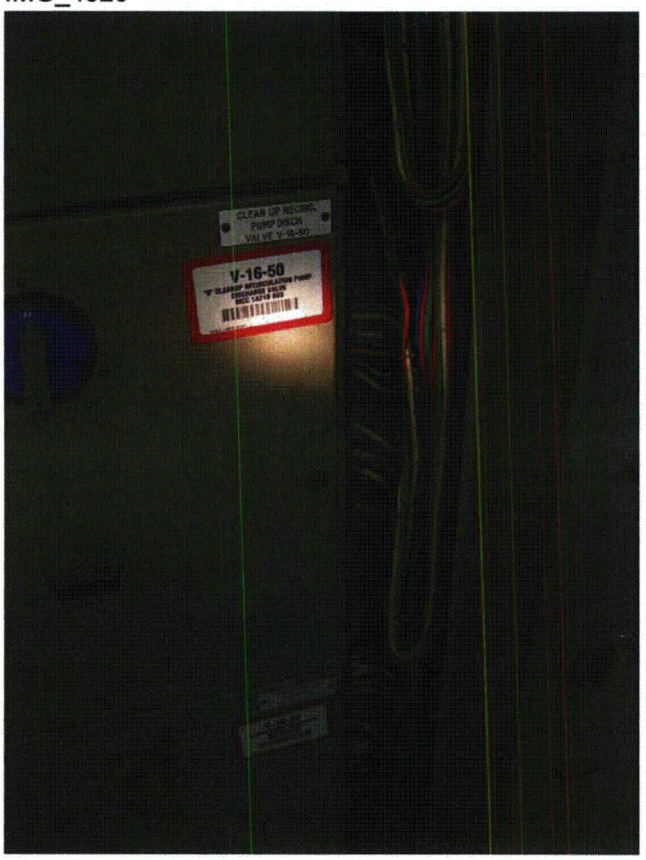

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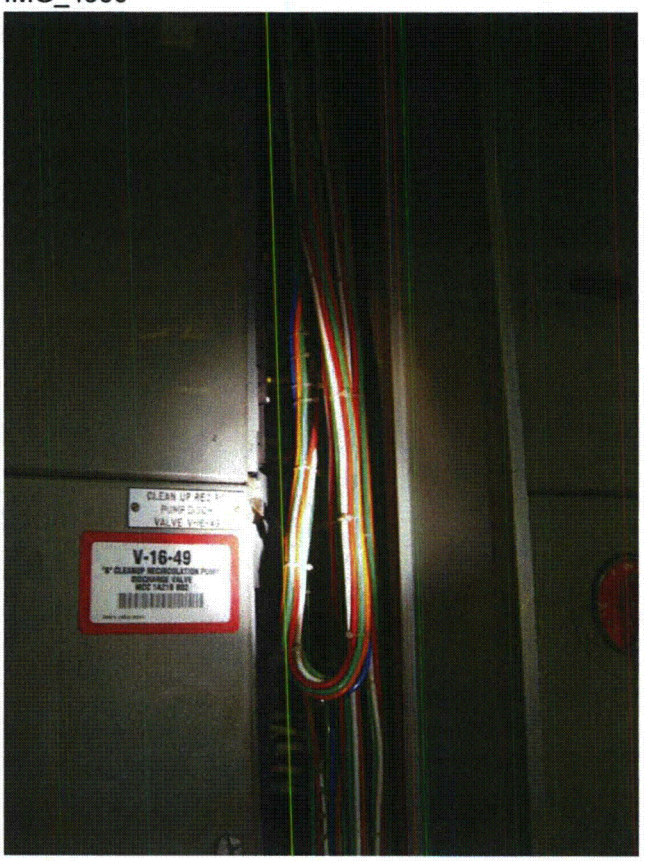


IMG_4532

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.:	1A21B-460V
Equipment Class:	(1) Motor Control Centers
Equipment Description:	MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A23-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 09

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A23-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING

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? *Performed internal inspection and did not find any Other Adverse Conditions. The lower and side panels were opened. The Breakers were not removed. There were no issues found in the areas opened. There is no reason to believe that the areas in the buckets pose an issue and the intent of reviewing Other Adverse Conditions are satisfied.*	Yes

Comments

See Seismic Qualification SQ-OC-1A23-460V-MCC Rev 1

Upper supports are consistent with Drawing 3E-153-38-016 Rev 0

Calculation C-1302X-322C-A06 qualifies the Oyster Creek safety-related masonry walls for seismic to address NRC IE Bulletin 80-11.

Evaluated by: Mark S Etre Mark S. Etre Date: 10/26/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

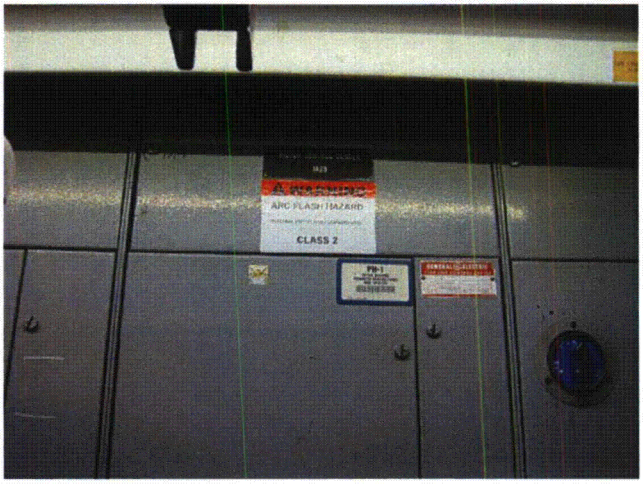
Equipment ID No.: 1A23-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING

Seth W. Baker 10/26/2012

Photos



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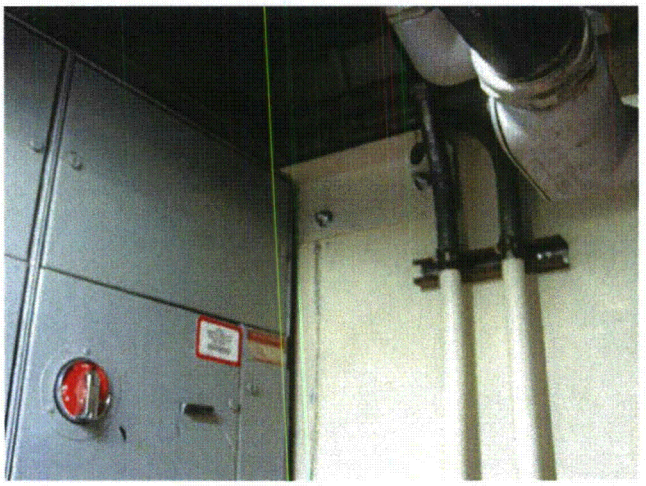

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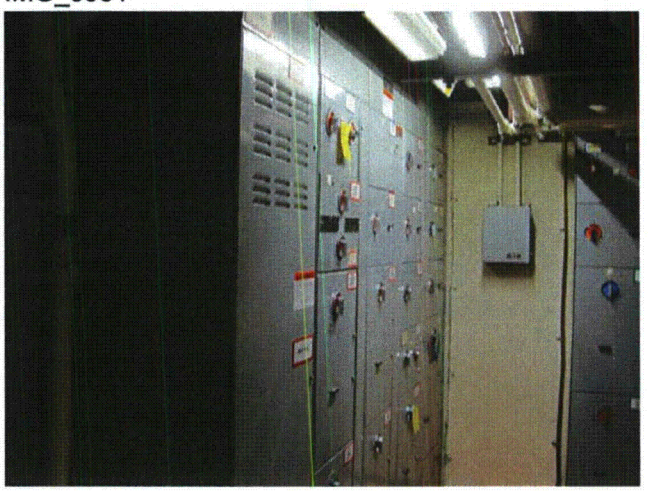


IMG_0955

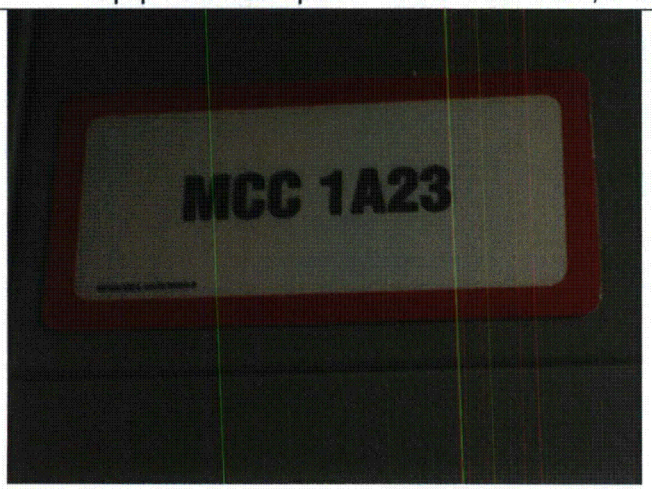
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A23-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING



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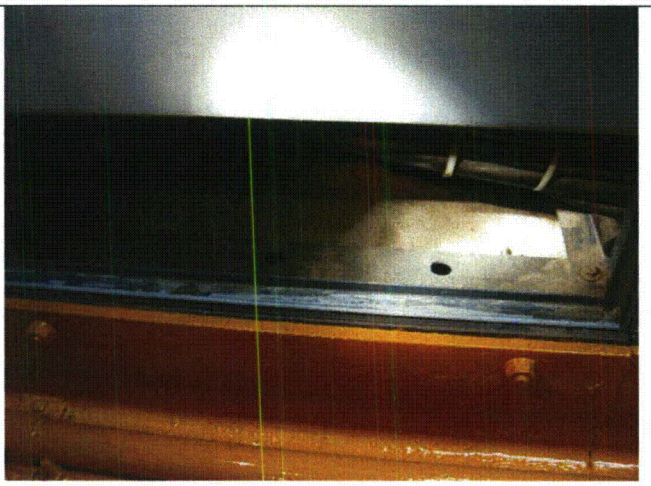

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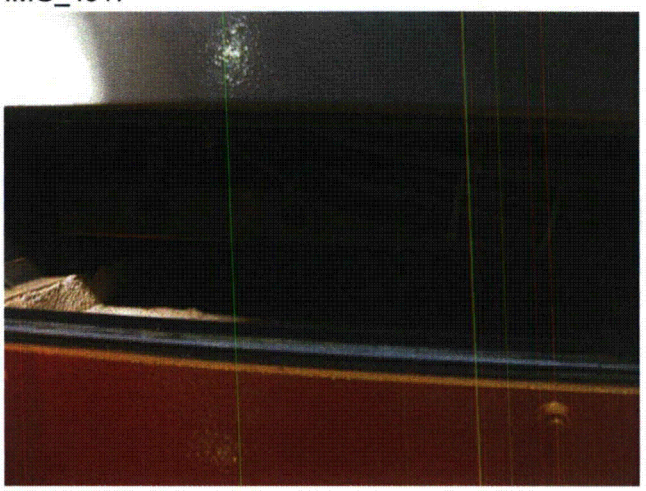


IMG_4519

IMG_4520

Status: [Y] N U

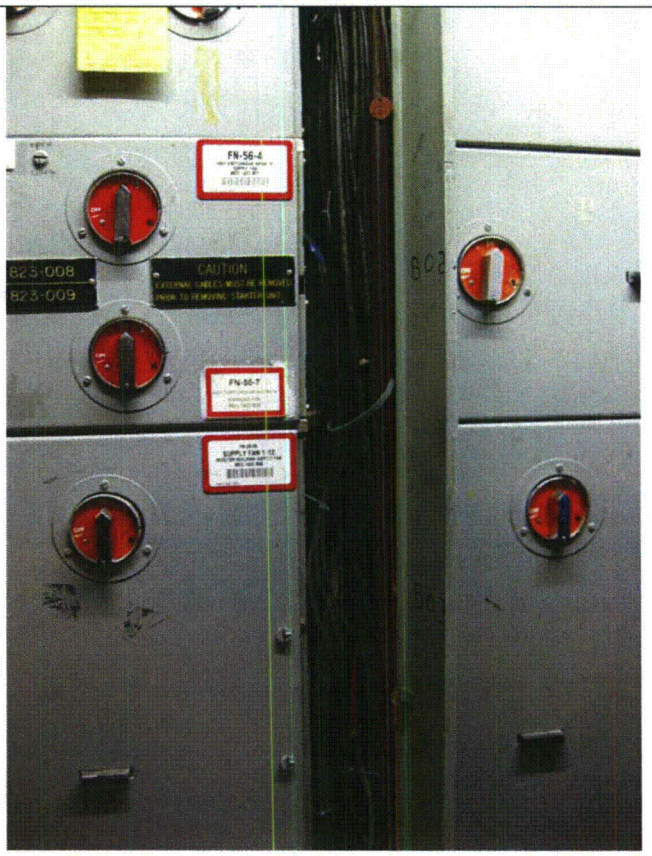
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A23-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING

IMG_4521



IMG_4522

SQUG SEWS

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A23-460V

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING

EBASCO SERVICES INCORPORATED
Two World Trade Center New York, NY 10048

EBASCO

April 29, 1981

GPU Services Incorporated
Attention: Mr. Leon Garibian
100 Interpace Parkway
Parsippany, NJ 07054

Dear Leon:

Re: OYSTER CREEK NUCLEAR STATION
FINAL SUBMITTAL OF MASONRY WALL
EVALUATION CALCULATION BOOKS

I am sending to you, together with this letter, 20 volumes of calculation books and 11 volumes of computer output. This will mark the end of our involvement for the re-evaluation of the Safety-Related Concrete Masonry Walls as required by NRC IE Bulletin 80-11.

Should you have any questions regarding the calculations and sketches, please do not hesitate to call. We will be glad to help.

Very truly yours,

E Odar
Assistant Chief Civil Engineer

GW:dl

cc: K D Chiu
G Wu

C1302X322CA06 VOL 1, 19810427,
REEVALUATION OF CONCRETE MASONRY WALL
NRC IE BULLETIN 80-11 GENERAL

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A2-460V

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 11

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A2-460V

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING

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? *Partial Inspection opened one panel, however, could see approximately 1/3 of the total internals. The Breakers were not removed. There were no issues found in the areas opened. The internal inspections were verified for at least 1/3 of the space that could be seen with the door open.* *Therefore, the intent of no other adverse conditions is met. The other panels would not be opened by ops due to the fact that, this is always energized.*	Yes

Comments

Nearby masonry block Wall is braced. Calculation C-1302X-322C-A06 qualifies the Oyster Creek safety-related masonry walls for seismic to address NRC IE Bulletin 80-11. The walls are modified with bracing. Gap between large angle brace and wall is ½" will still confine the wall.
See Seismic Qualification SQ-OC-1A2-460V-USS Rev 2

One side panel was opened. The Breakers were not removed. There were no issues found in the areas opened. The internal Anchor Bolts were verified for at least 1/3 of the space that could be seen with the door open. There is no reason to believe that the other anchors pose an issue and the intent of reviewing anchorage

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A2-460V

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING

is satisfied.

Calculation C-1302X-322C-A06 qualifies the Oyster Creek safety-related masonry walls for seismic to address NRC IE Bulletin 80-11.

Evaluated by: Mark S. Etre Date: 10/26/2012

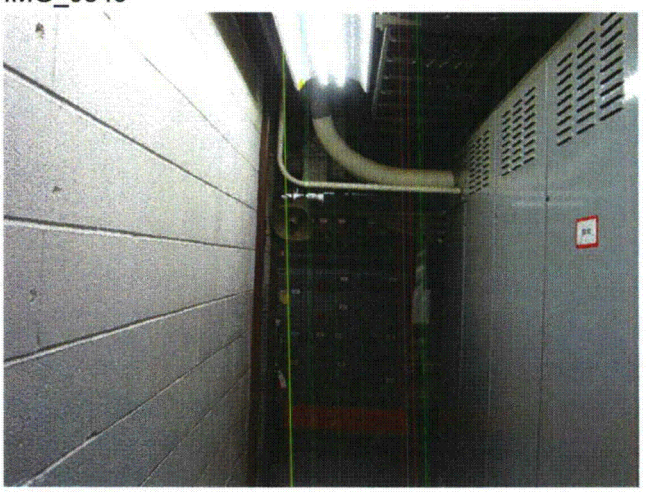
Seth W. Baker 10/26/2012

Photos

IMG_0847

IMG_0849

IMG_0850



IMG_0853

Status: [Y] N U

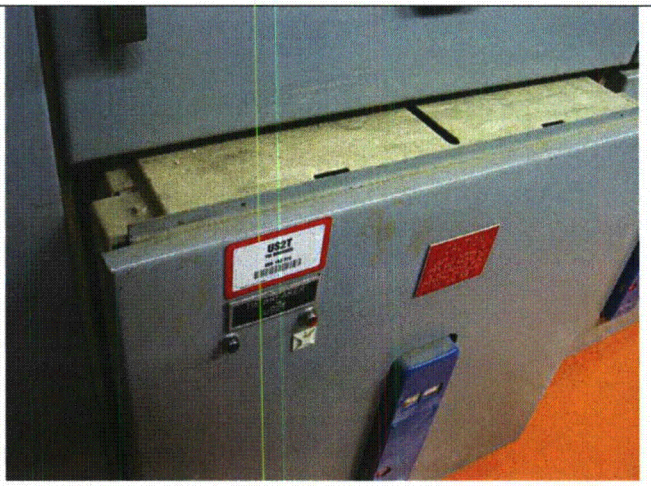
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A2-460V

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING

IMG_0854



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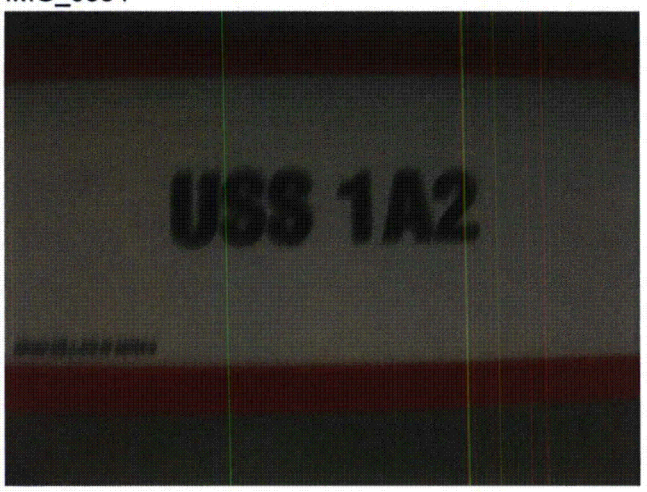

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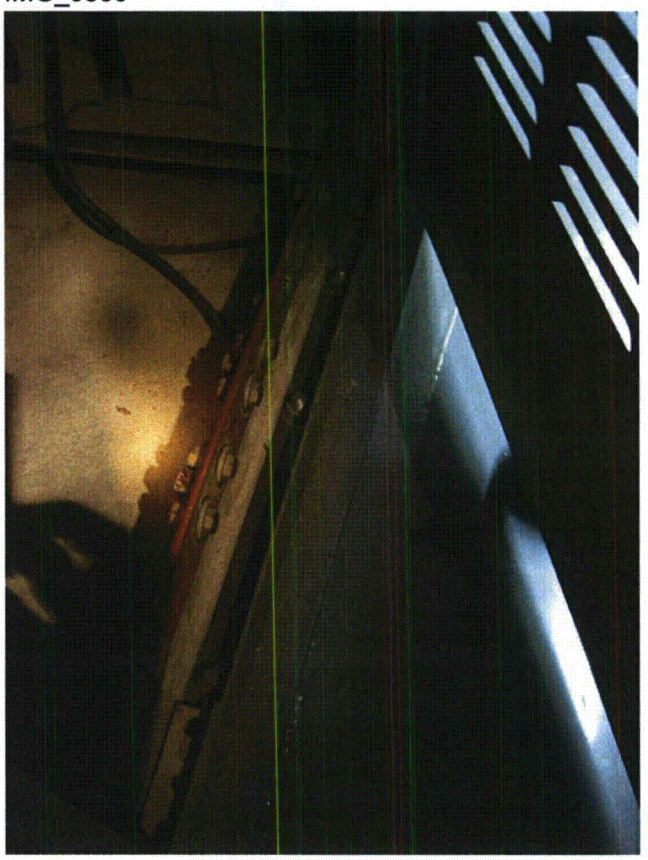


IMG_4542

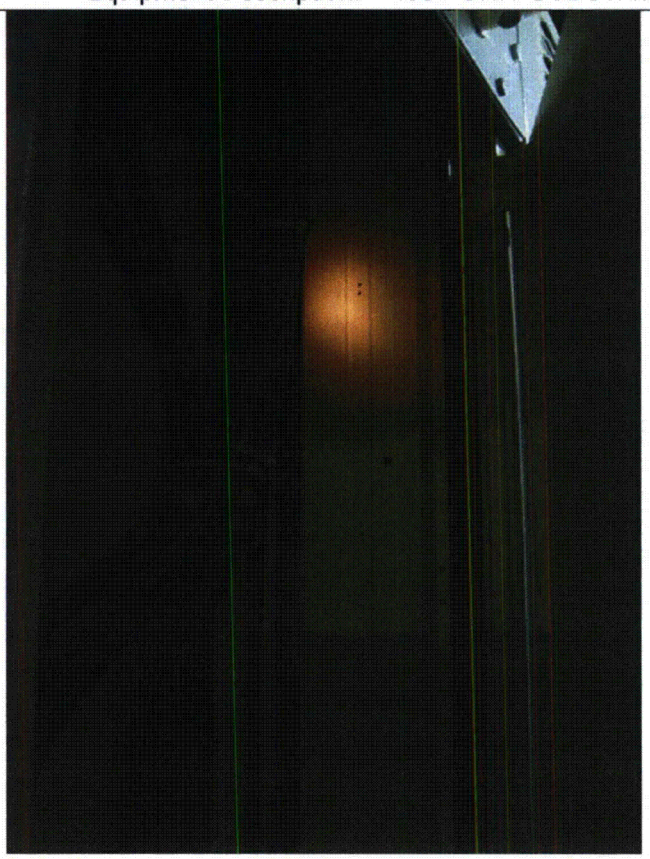
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A2-460V

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING



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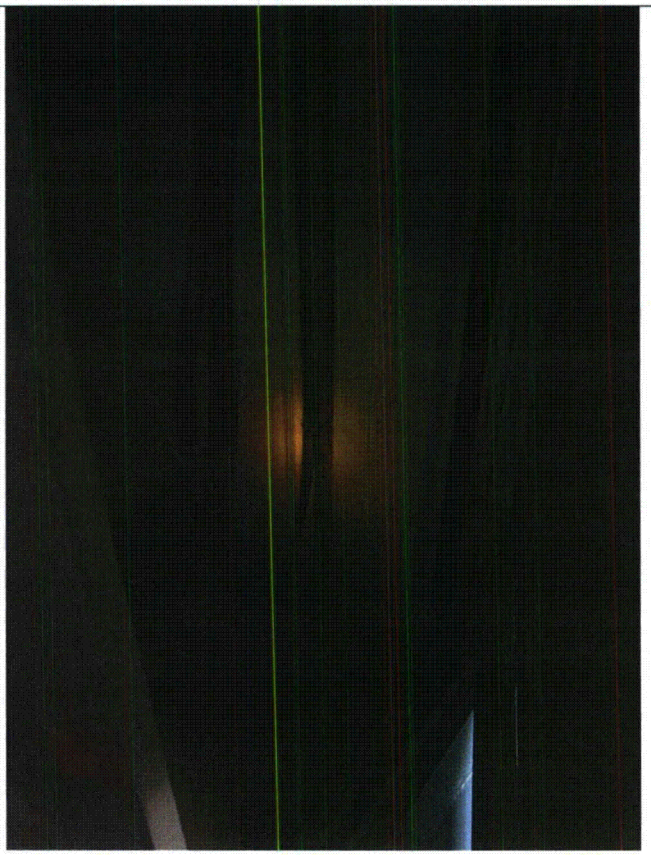


IMG_4544

SQUG SEWS

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1A2-460V

Equipment Class: (2) Low Voltage Switchgear

Equipment Description: 460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING

EBASCO SERVICES INCORPORATED
Two World Trade Center New York, NY 10048

April 29, 1981

GPU Services Incorporated
Attention: Mr. Leon Garibian
100 Interpace Parkway
Parsippany, NJ 07054

Dear Leon:

Re: OYSTER CREEK NUCLEAR STATION
FINAL SUBMITTAL OF MASONRY WALL
EVALUATION CALCULATION BOOKS

I am sending to you, together with this letter, 20 volumes of calculation books and 11 volumes of computer output. This will mark the end of our involvement for the re-evaluation of the Safety-Related Concrete Masonry Walls as required by NRC IE Bulletin 80-11.

Should you have any questions regarding the calculations and sketches, please do not hesitate to call. We will be glad to help.

Very truly yours,

E Odar
Assistant Chief Civil Engineer

GW:dl

cc: K D Chiu
G Wu

C1302X322CA06 VOL 1, 19810427,
REEVALUATION OF CONCRETE MASONRY WALL
NRC IE BULLETIN 80-11 GENERAL

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

Equipment Description: 4160V BUS 1C SWITCHGEAR

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): TB, 23.00 ft, 28

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

Equipment Description: 4160V BUS 1C SWITCHGEAR

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? *Internal inspections have been performed and no other adverse conditions have been found.*	Yes

Comments

See SQ-OC-1C-4160V Rev 03

Anchorage within cabinet has been inspected.

Anchor for breaker guide rails on floor is missing nut inside cubicle 1A1P. The guide rails are not part of the cabinet frame and serve no structural purpose. Therefore there is no seismic issue.

Evaluated by: Mark S. Etre — Date: 10/26/2012

Seth W. Baker — 10/26/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

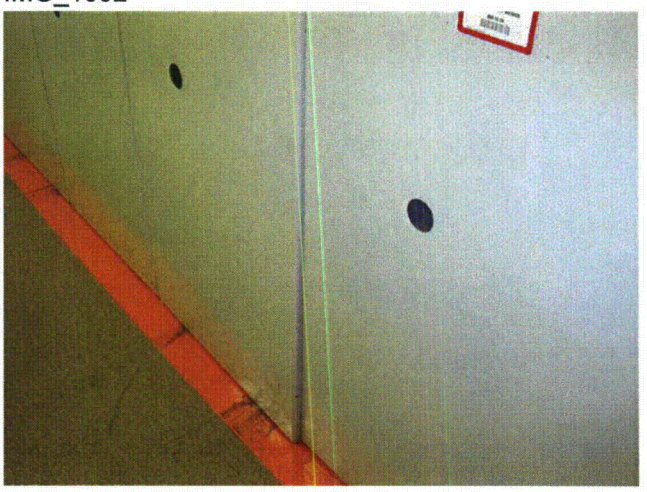
Equipment Description: 4160V BUS 1C SWITCHGEAR

Photos

IMG_1091

IMG_1092

IMG_1093



IMG_1094

Status: [Y] N U

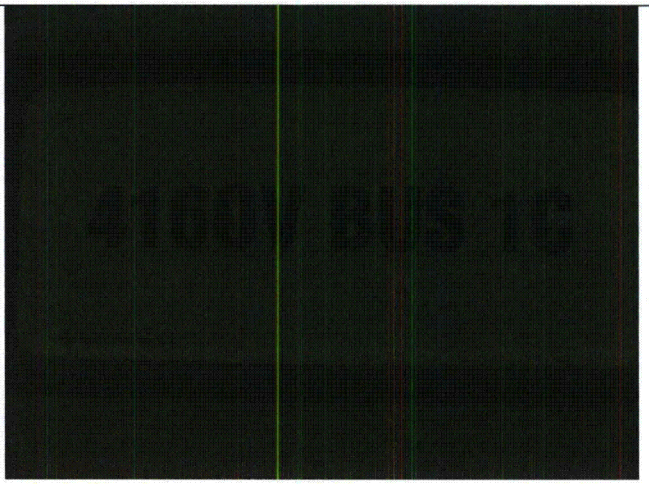
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

Equipment Description: 4160V BUS 1C SWITCHGEAR

IMG_1096



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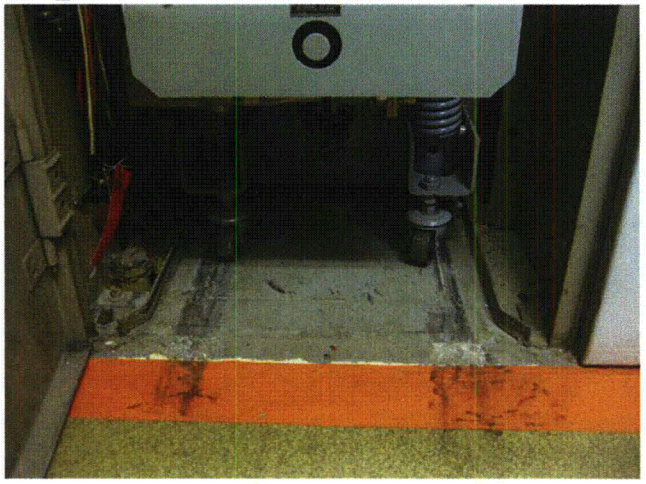

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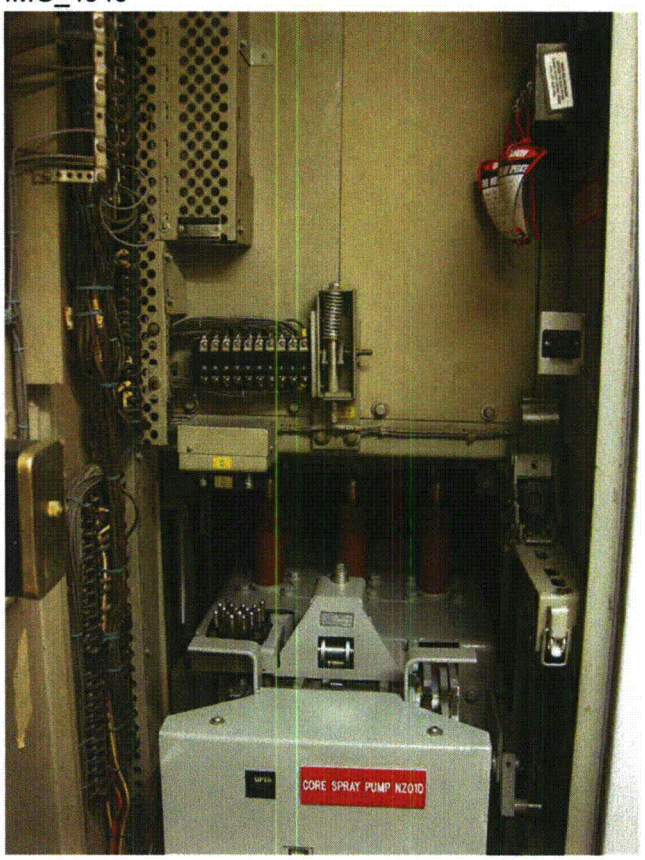


IMG_4547

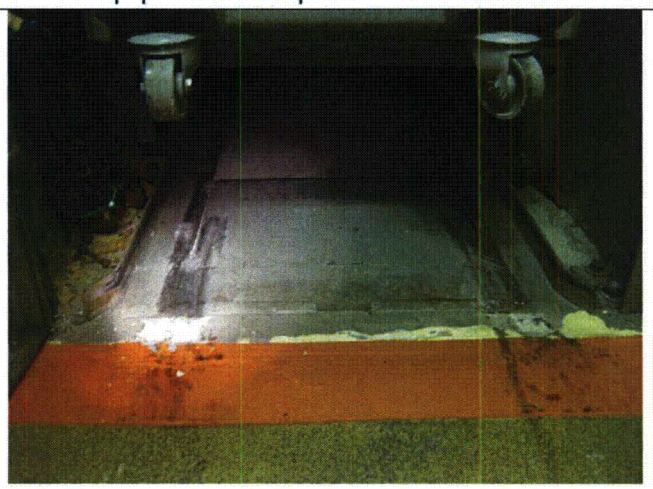
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

Equipment Description: 4160V BUS 1C SWITCHGEAR



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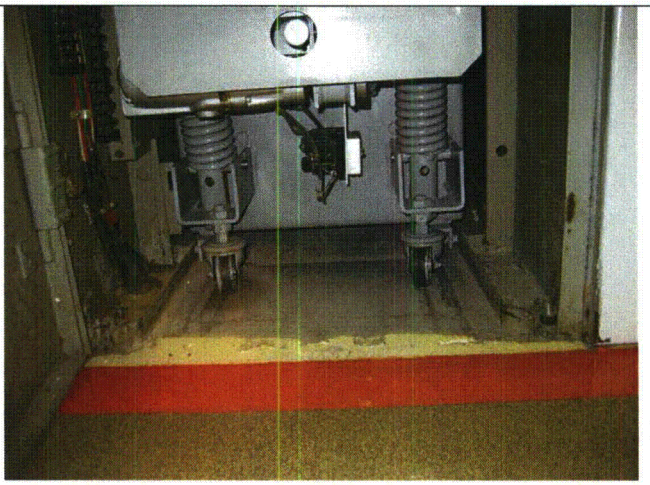

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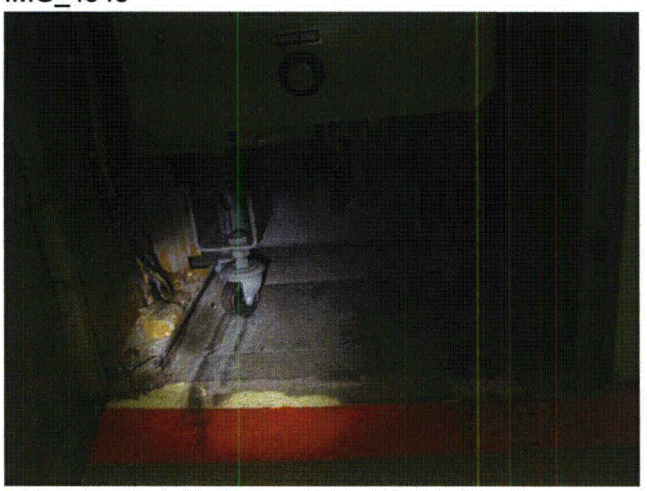


IMG_4550

IMG_4551

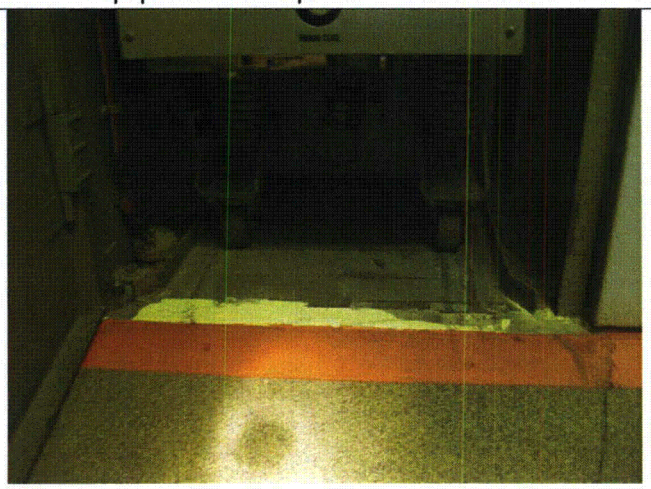
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

Equipment Description: 4160V BUS 1C SWITCHGEAR



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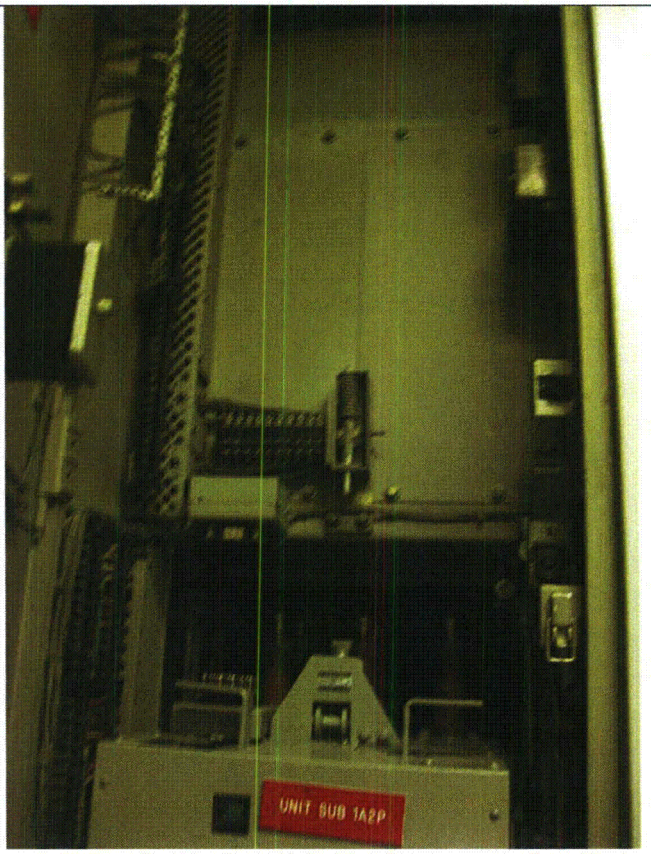


IMG_4553

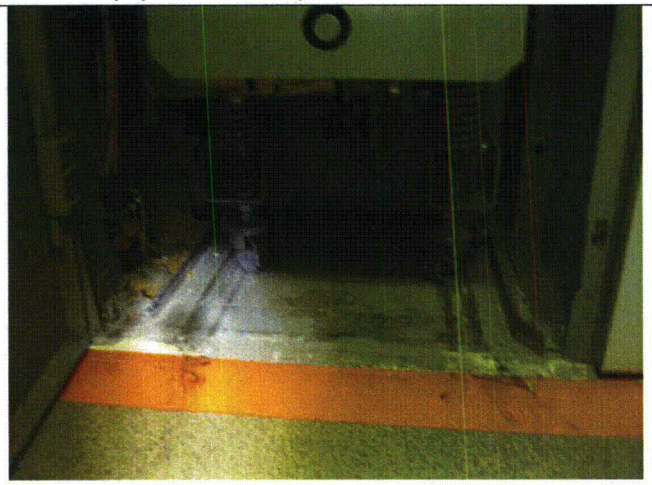
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

Equipment Description: 4160V BUS 1C SWITCHGEAR



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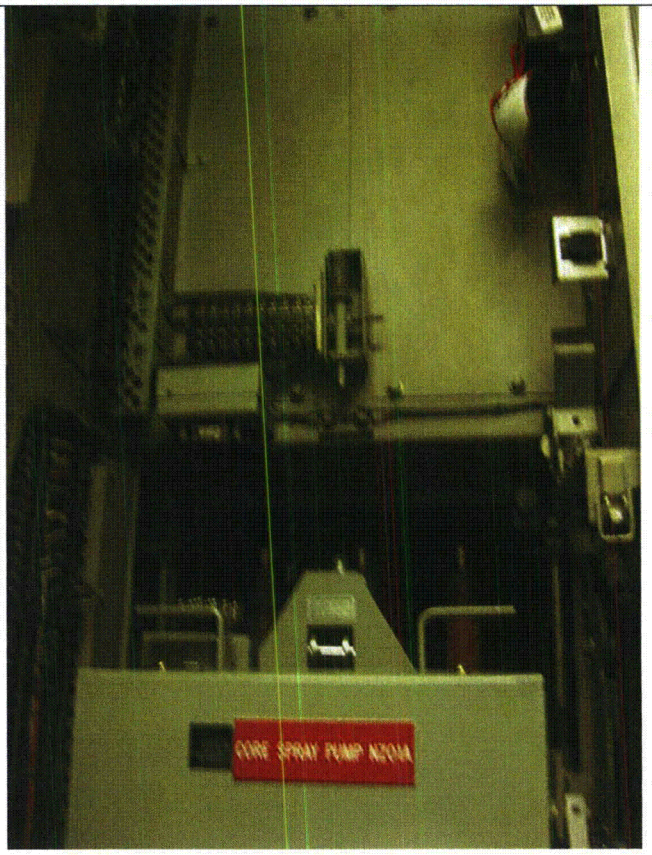


IMG_4555

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 1C

Equipment Class: (3) Medium Voltage Switchgear

Equipment Description: 4160V BUS 1C SWITCHGEAR

IMG_4556

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: BTCHG C1 (SEE APPENDIX C PAGE C-37)

Equipment Class: (16) Inverters

Equipment Description: 'C' STATION BATTERY SOLID STATE STATIC CHARGER C1

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): TB, 23.00 ft, 26

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

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

SEE SWC IN APPENDIX C FOR RESPONSES

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

SEE SWC IN APPENDIX C FOR RESPONSES

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: BTCHG C1 (SEE APPENDIX C PAGE C-37)

Equipment Class: (16) Inverters

Equipment Description: 'C' STATION BATTERY SOLID STATE STATIC CHARGER C1

Other Adverse Conditions (SUPPLEMENTAL CABINET INSPECTION)

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
    a. *Internal components secured? (i.e. no loose or missing fasteners)* Yes*
    b. *Are adjacent cabinets secured together?* N/A
    c. *No other adverse seismic conditions?* Yes*

Internal inspections have been performed and no other adverse conditions have been found.

Comments

See SQ-OC-BT CHG C1 & C2 Rev 00

Equipment has __External__ anchorage.

Comments

See SQ-OC-BT CHG C1 & C2 Rev 00

External Anchorage was completed during online walk down.

Evaluated by:	Mark S Etre	Mark S. Etre	Date:	8/22/2012 & 12/10/12* **for Internals inspection.*
	Seth Baker	Seth W. Baker	Date:	8/22/2012
	Wing Ho	Wing Ho	Date:	12/10/12 *for Internals inspection Only.*

Photos

Status: [Y] N U

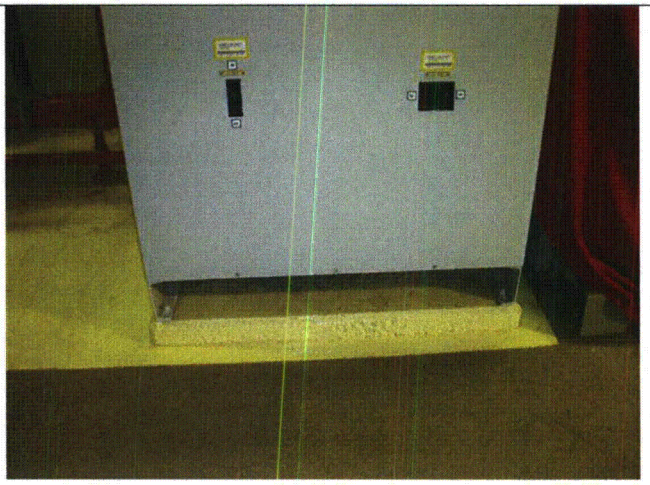
Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: BTCHG C1 (SEE APPENDIX C PAGE C-37)

Equipment Class: (16) Inverters

Equipment Description: 'C' STATION BATTERY SOLID STATE STATIC CHARGER C1

IMG_1068



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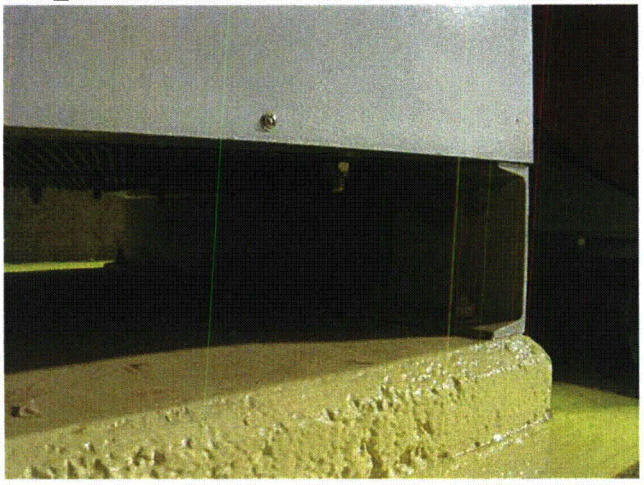

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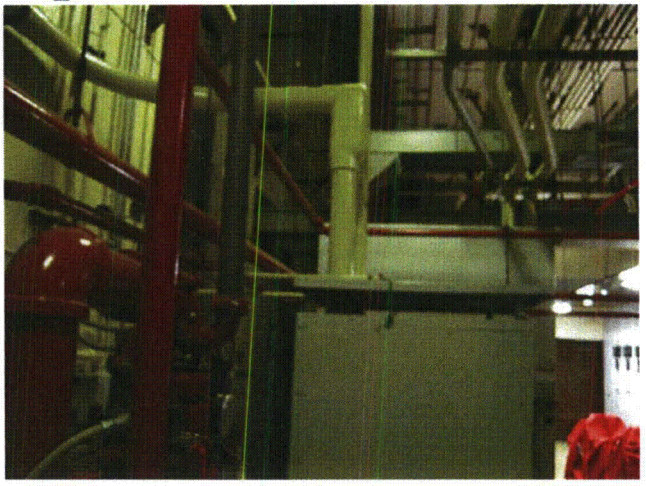


IMG_1073

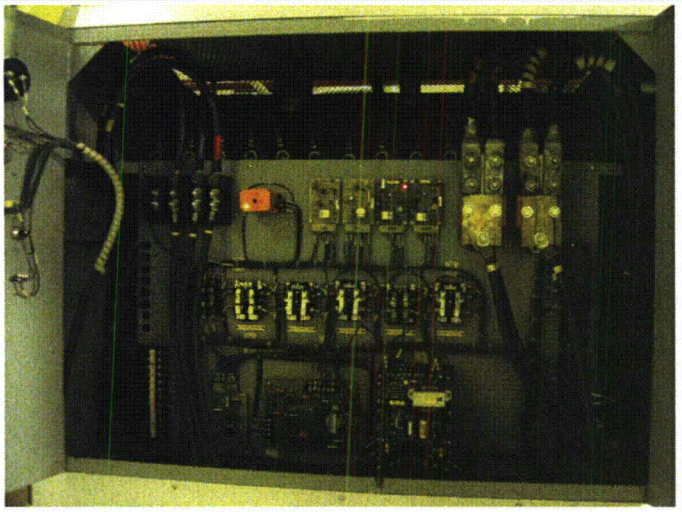
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: BTCHG C1 (SEE APPENDIX C PAGE C-37)

Equipment Class: (16) Inverters

Equipment Description: 'C' STATION BATTERY SOLID STATE STATIC CHARGER C1



IMG_1506

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 BATTERY CHARGER (SEE APPENDIX C PAGE C- 75)

Equipment Class: (16) Inverters

Equipment Description: DIESEL GENERATOR UNIT #1 BATTERY CHARGER

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DG BLDG, 23.00 ft, 01

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)? -
2. Is the anchorage free of bent, broken, missing or loose hardware? -
3. Is the anchorage free of corrosion that is more than mild surface oxidation? -
4. Is the anchorage free of visible cracks in the concrete near the anchors? -
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.) -
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? -

SEE SWC IN APPENDIX C FOR RESPONSES

Interaction Effects

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

SEE SWC IN APPENDIX C FOR RESPONSES

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 BATTERY CHARGER (SEE APPENDIX C PAGE C- 75)

Equipment Class: (16) Inverters

Equipment Description: DIESEL GENERATOR UNIT #1 BATTERY CHARGER

Other Adverse Conditions (SUPPLEMENTAL CABINET INSPECTION)

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
    a. *Internal components secured? (i.e. no loose or missing fasteners)* — Yes
    b. *Are adjacent cabinets secured together?* — N/A
    c. *No other adverse seismic conditions?* — Yes

Comments

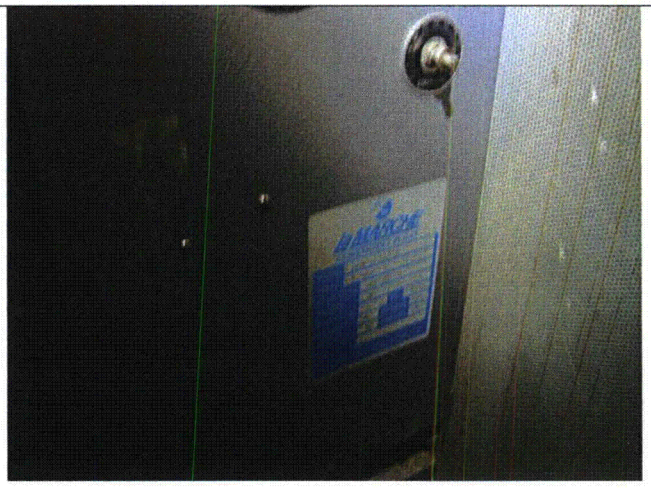
. *(Cover Panel removed) have been performed and no other adverse conditions have been found.*

See SQ-OC-M-39-001 Rev 06
Equipment has external anchorage.

Evaluated by: Mark S. Etre — Date: 10/26/2012

Seth W. Baker — 10/26/2012

Photos



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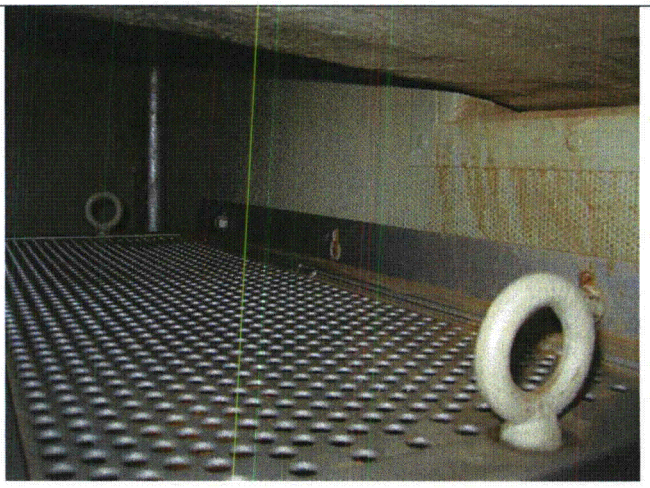


IMG_1185

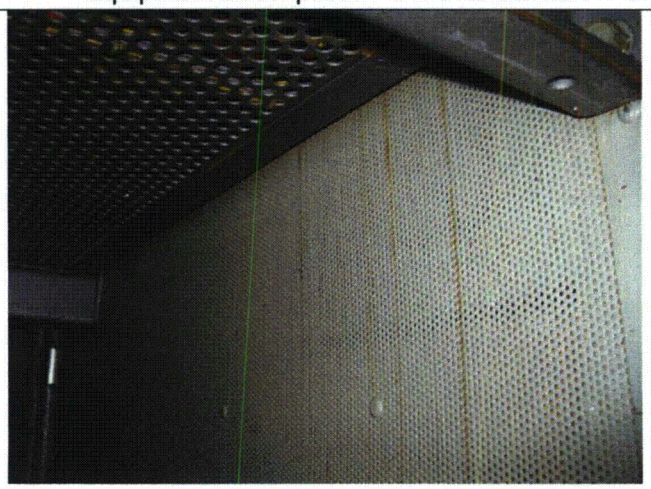
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 BATTERY CHARGER (SEE APPENDIX C PAGE C- 75)

Equipment Class: (16) Inverters

Equipment Description: DIESEL GENERATOR UNIT #1 BATTERY CHARGER



IMG_1186

IMG_1369

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 SWGR (SEE APPENDIX C PAGE C-78)

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

Equipment Description: DIESEL GENERATOR #1 UNIT SWITCHGEAR

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): DG BLDG, 23.00 ft, 01

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)? -
2. Is the anchorage free of bent, broken, missing or loose hardware? -
3. Is the anchorage free of corrosion that is more than mild surface oxidation? -
4. Is the anchorage free of visible cracks in the concrete near the anchors? -
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.) -
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? -

SEE SWC IN APPENDIX C FOR RESPONSES

Interaction Effects

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

SEE SWC IN APPENDIX C FOR RESPONSES

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 SWGR (SEE APPENDIX C PAGE C-78)

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

Equipment Description: DIESEL GENERATOR #1 UNIT SWITCHGEAR

Other Adverse Conditions (SUPPLEMENTAL CABINET INSPECTION)

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
    a. *Internal components secured? (i.e. no loose or missing fasteners)* Yes
    b. *Are adjacent cabinets secured together?* Yes
    c. *No other adverse seismic conditions?* Yes

Comments

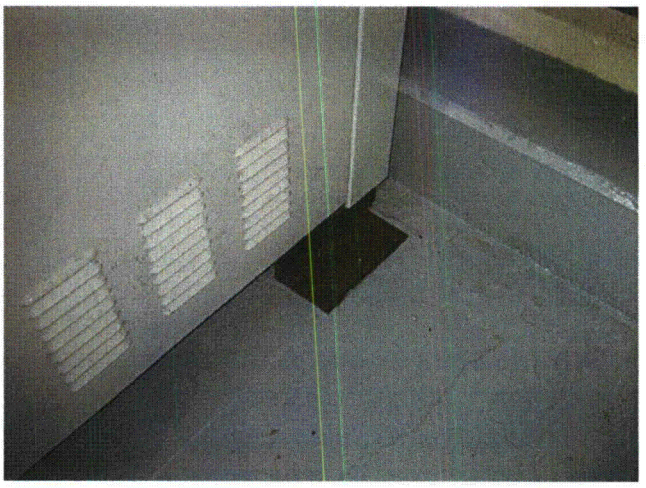
Equipment has internal and external anchorage.

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

IMG_1190



IMG_1195

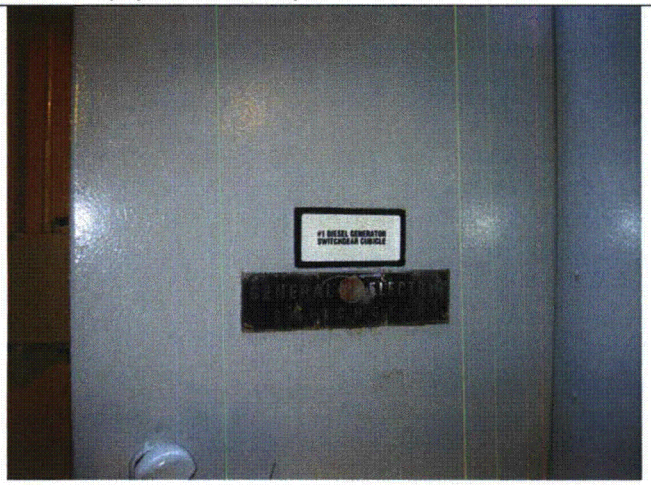
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 SWGR (SEE APPENDIX C PAGE C-78)

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

Equipment Description: DIESEL GENERATOR #1 UNIT SWITCHGEAR



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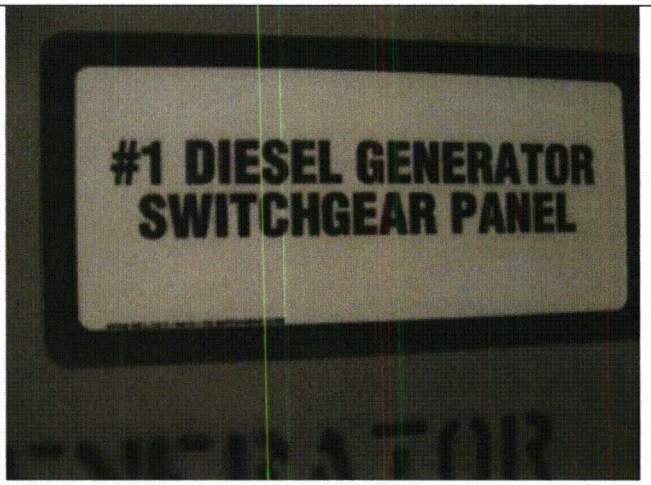

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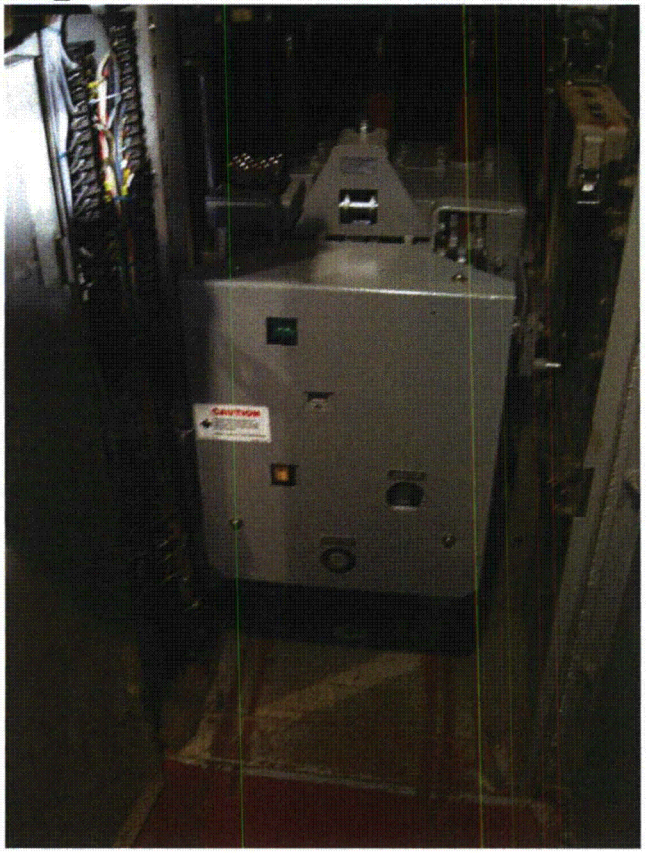

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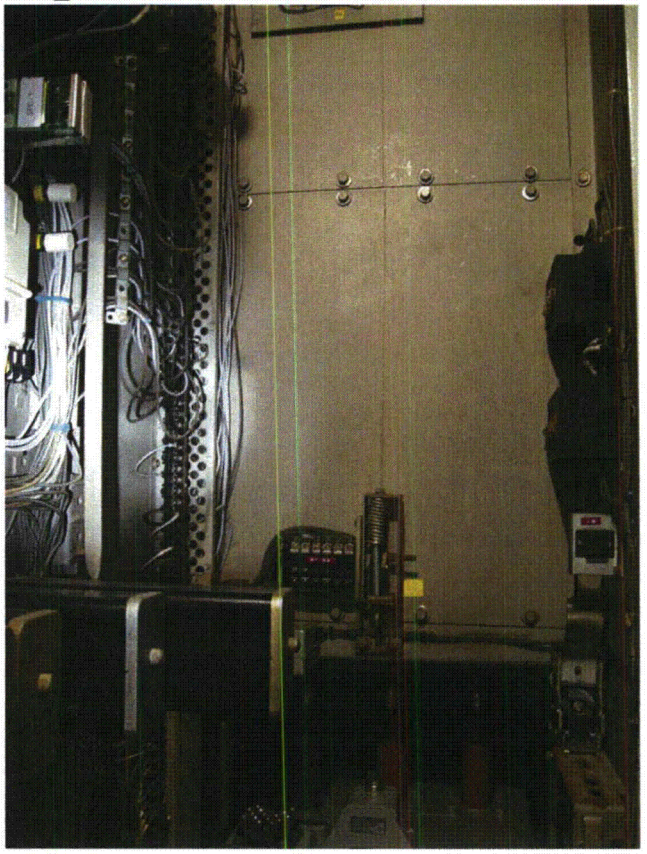


IMG_1364

Status: [Y] N U

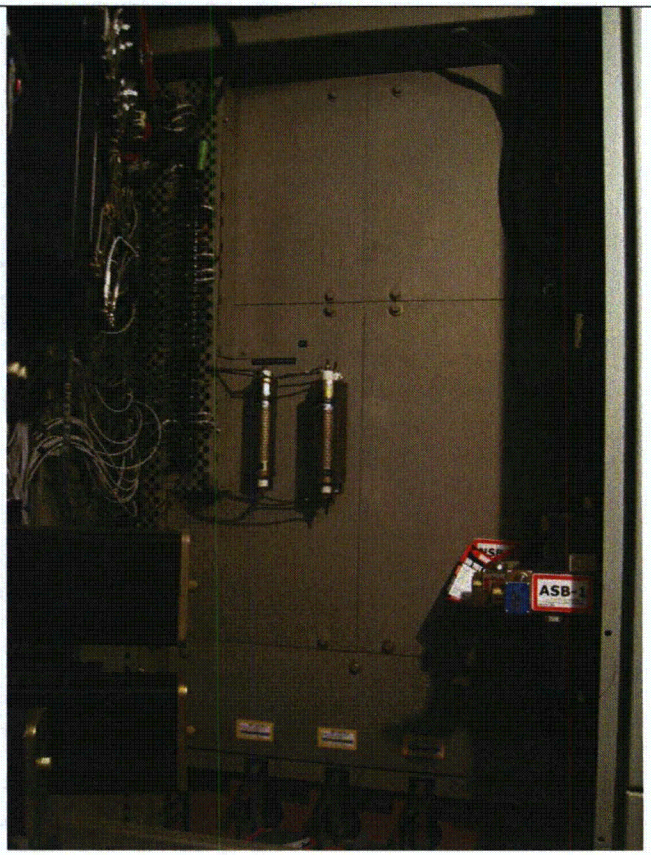
Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 SWGR (SEE APPENDIX C PAGE C-78)

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

Equipment Description: DIESEL GENERATOR #1 UNIT SWITCHGEAR

IMG_1365



IMG_1366

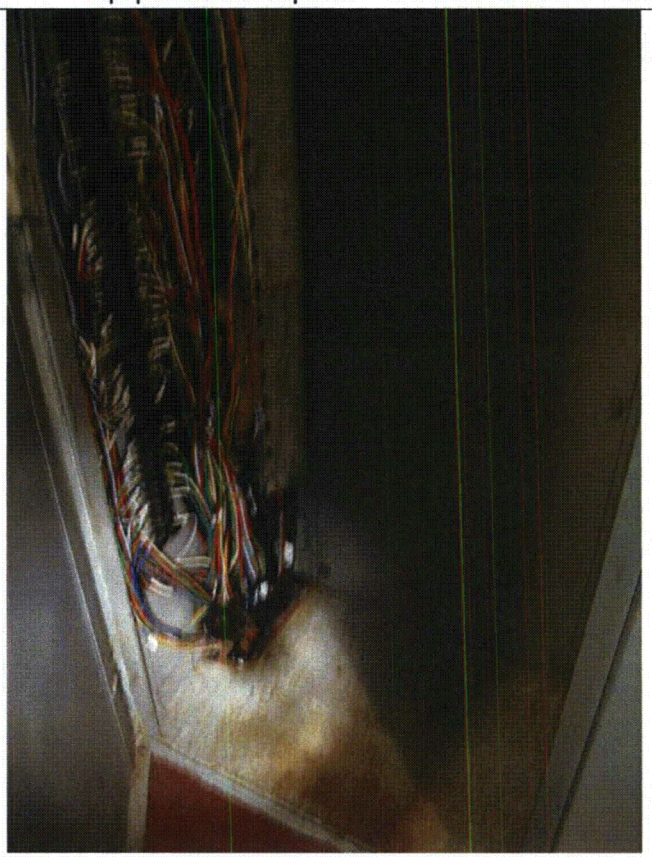
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: DG-1 SWGR (SEE APPENDIX C PAGE C-78)

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

Equipment Description: DIESEL GENERATOR #1 UNIT SWITCHGEAR



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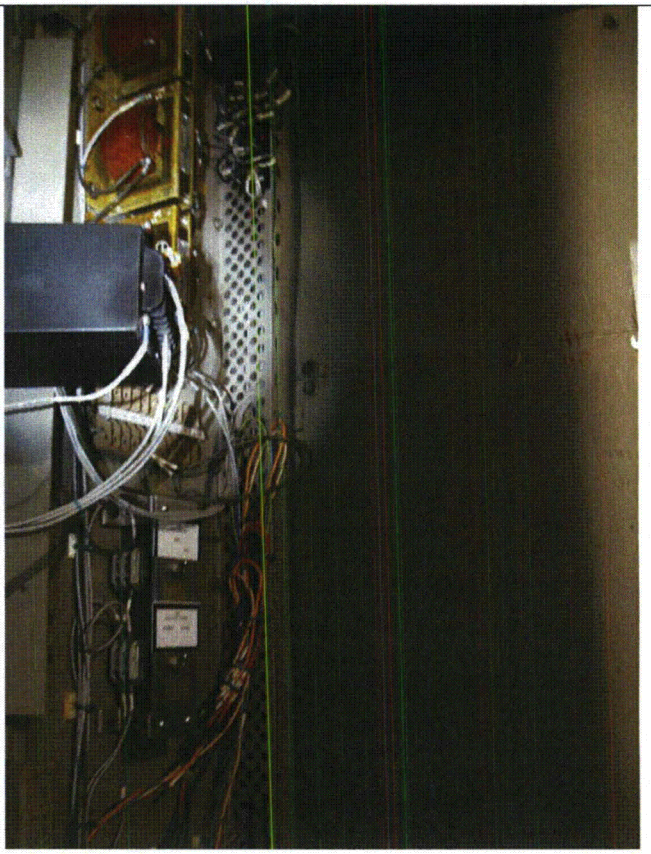


IMG_1368

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: ER18A (SEE APPENDIX C PAGE C-87)

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

Equipment Description: CORE SPRAY/AUTO DEPRESS'N SYSTEM RELAY LOGIC PANEL

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 12

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)?	-
2.	Is the anchorage free of bent, broken, missing or loose hardware?	-
3.	Is the anchorage free of corrosion that is more than mild surface oxidation?	-
4.	Is the anchorage free of visible cracks in the concrete near the anchors?	-
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.)	-
6.	Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	-

SEE SWC IN APPENDIX C FOR RESPONSES

Interaction Effects

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

SEE SWC IN APPENDIX C FOR RESPONSES

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: ER18A (SEE APPENDIX C PAGE C-87)

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

Equipment Description: CORE SPRAY/AUTO DEPRESS'N SYSTEM RELAY LOGIC PANEL

Other Adverse Conditions (SUPPLEMENTAL CABINET INSPECTION)

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
    a. *Internal components secured? (i.e. no loose or missing fasteners)* Yes
    b. *Are adjacent cabinets secured together?* Yes
    c. *No other adverse seismic conditions?* Yes

Comments

See Seismic Qualification SQ-OC-ER-18A Rev 1

Calculation C-1302X-322C-A06 qualifies the Oyster Creek safety-related masonry walls for seismic to address NRC IE Bulletin 80-11.

Equipment has **External** anchorage.

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

Status: [Y] N U

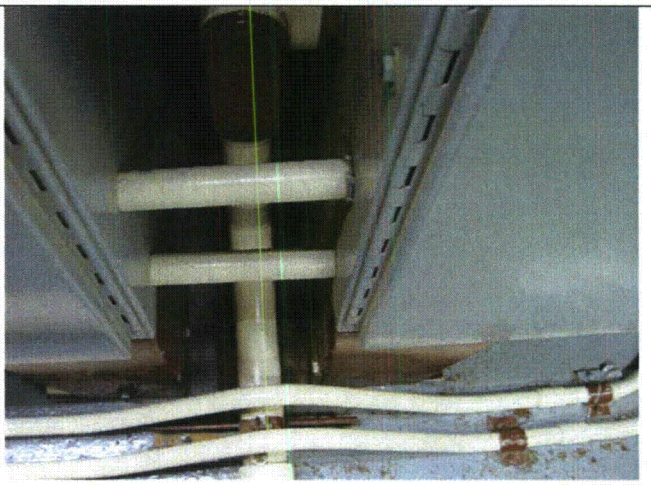
Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: ER18A (SEE APPENDIX C PAGE C-87)

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

Equipment Description: CORE SPRAY/AUTO DEPRESS'N SYSTEM RELAY LOGIC PANEL

IMG_0907



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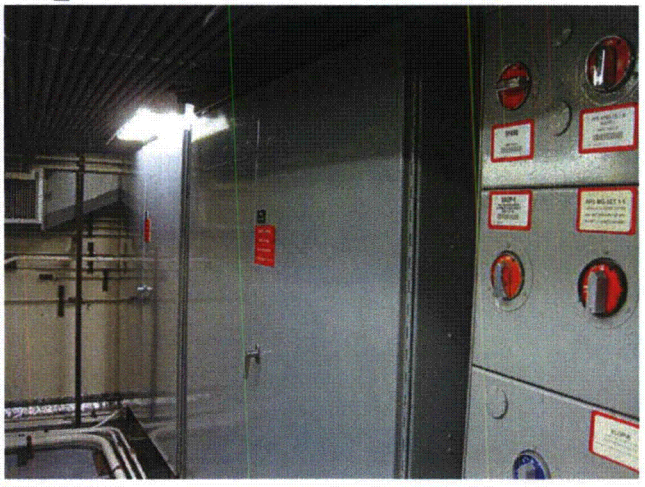


IMG_0910

IMG_4514

Status: [Y] N U

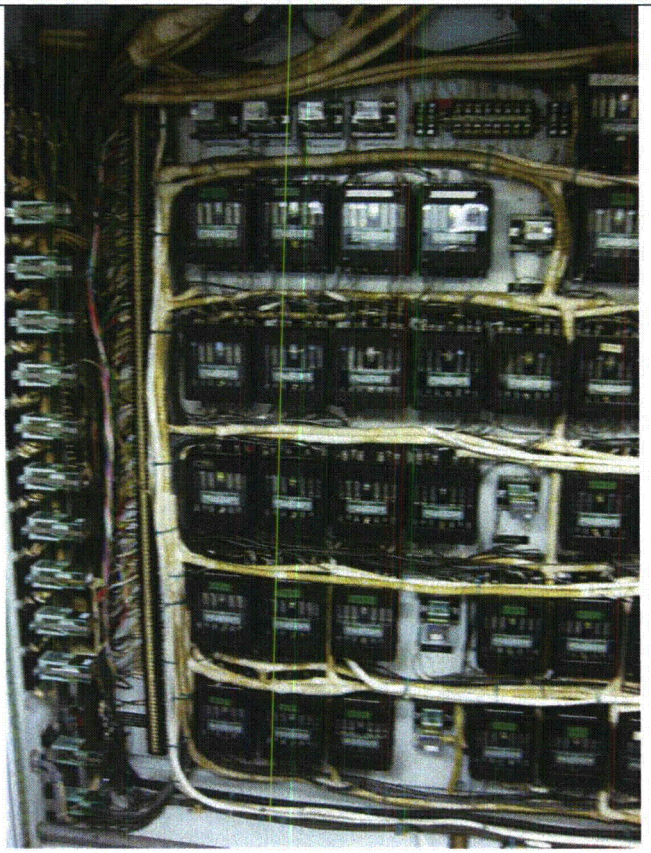
Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION

Equipment ID No.: ER18A (SEE APPENDIX C PAGE C-87)

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

Equipment Description: CORE SPRAY/AUTO DEPRESS'N SYSTEM RELAY LOGIC PANEL

IMG_4515



IMG_4516

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTALCABINET INSPECTION

Equipment ID No.: LSP-1A2 (SEE APPENDIX C PAGE C- 132)

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

Equipment Description: LOCAL SHUTDOWN PANEL- USS 1A2 PUMP/BREAKER CONTROL

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 16

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)? -
2. Is the anchorage free of bent, broken, missing or loose hardware? -
3. Is the anchorage free of corrosion that is more than mild surface oxidation? -
4. Is the anchorage free of visible cracks in the concrete near the anchors? -
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.) -
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? -

SEE SWC IN APPENDIX C FOR RESPONSES

Interaction Effects

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

SEE SWC IN APPENDIX C FOR RESPONSES

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTALCABINET INSPECTION

Equipment ID No.: LSP-1A2 (SEE APPENDIX C PAGE C- 132)

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

Equipment Description: LOCAL SHUTDOWN PANEL- USS 1A2 PUMP/BREAKER CONTROL

Other Adverse Conditions (SUPPLEMENTAL CABINET INSPECTION)

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
    a. *Internal components secured? (i.e. no loose or missing fasteners)* — Yes
    b. *Are adjacent cabinets secured together?* — N/A
    c. *No other adverse seismic conditions?* — Yes

Comments

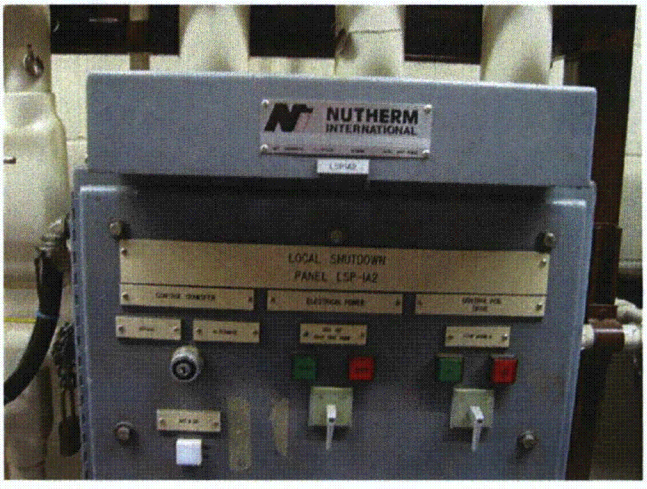
Equipment has external anchorage.

See SQ-OC-LSP-1A2 Rev 02

Evaluated by: Mark S. Etre — Date: 10/26/2012

Seth W. Baker — 10/26/2012

Photos



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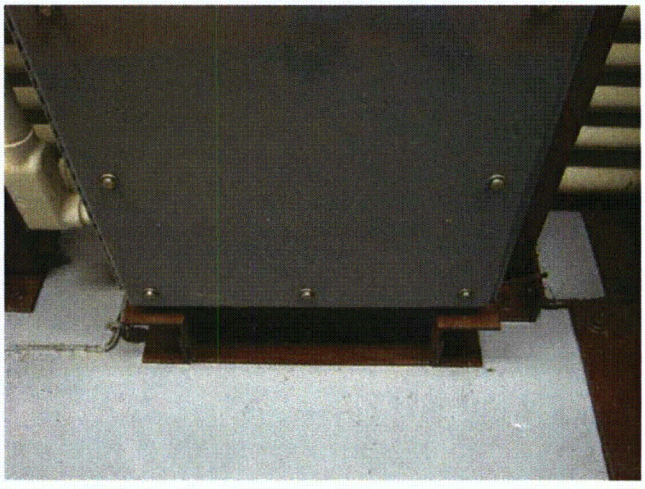


IMG_1010

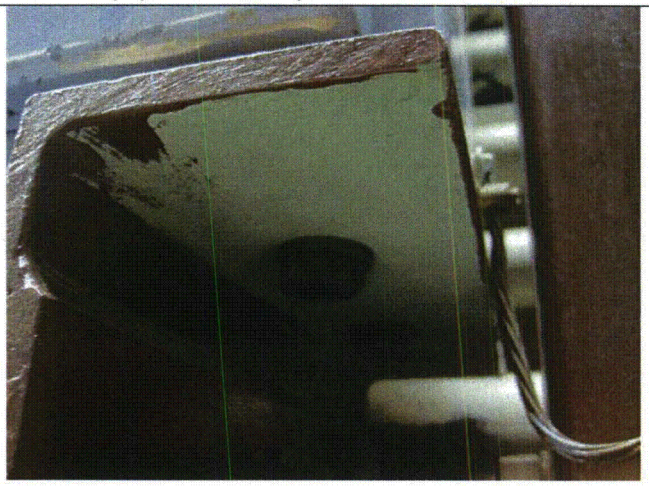
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTALCABINET INSPECTION

Equipment ID No.: LSP-1A2 (SEE APPENDIX C PAGE C- 132)

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

Equipment Description: LOCAL SHUTDOWN PANEL- USS 1A2 PUMP/BREAKER CONTROL



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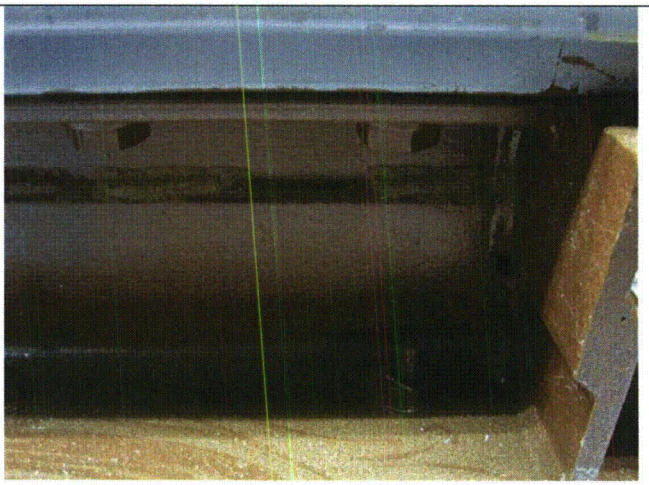


IMG_1015

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION)

Equipment ID No.: 1A21A-460V (SEE APPENDIX C PAGE C-8)

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21A 460V,3P,3W,60HZ FOR REACTOR BUILDING

Project: Oyster Creek SWEL

Location (Bldg, Elev, Room/Area): RB, 23.00 ft, 08

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)? -
2. Is the anchorage free of bent, broken, missing or loose hardware? -
3. Is the anchorage free of corrosion that is more than mild surface oxidation? -
4. Is the anchorage free of visible cracks in the concrete near the anchors? -
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.) -
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? -

SEE SWC IN APPENDIX C FOR RESPONSES

Interaction Effects

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

SEE SWC IN APPENDIX C FOR RESPONSES

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION)

Equipment ID No.: 1A21A-460V (SEE APPENDIX C PAGE C-8)

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21A 460V,3P,3W,60HZ FOR REACTOR BUILDING

Other Adverse Conditions (SUPPLEMENTAL CABINET INSPECTION)

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
    a. *Internal components secured? (i.e. no loose or missing fasteners)* Yes
    b. *Are adjacent cabinets secured together?* Yes
    c. *No other adverse seismic conditions?* Yes

The lower and side panels were opened. The Breakers were not removed. There were no issues found in the areas opened. There is no reason to believe that the areas in the buckets pose an issue and the intent of reviewing Other Adverse Conditions are satisfied.

Comments

External Anchorage was completed during online walk down. External anchorage is as documented in SQ-OC-1A2A-460V-MCC
External Supports are consistent with Calculation C-1302-732-5320-014 Rev 0

Equipment has external anchorage.

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION)

Equipment ID No.: 1A21A-460V (SEE APPENDIX C PAGE C-8)

Equipment Class: (1) Motor Control Centers

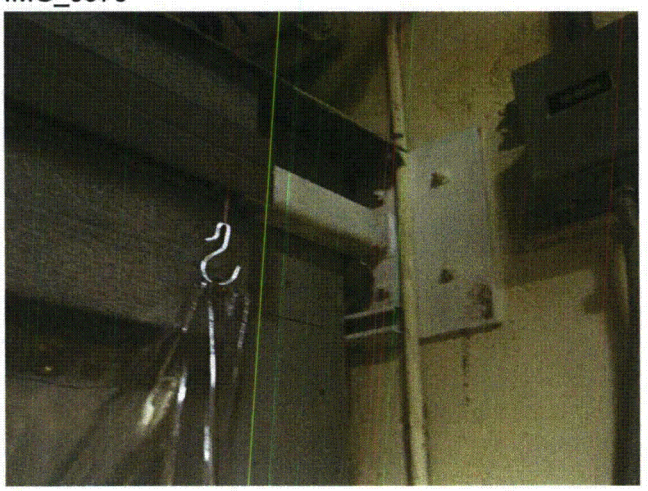
Equipment Description: MCC 1A21A 460V,3P,3W,60HZ FOR REACTOR BUILDING

Photos

IMG_0974

IMG_0975

IMG_0976



IMG_0978

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION)

Equipment ID No.: 1A21A-460V (SEE APPENDIX C PAGE C-8)

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21A 460V,3P,3W,60HZ FOR REACTOR BUILDING

IMG_4533

IMG_4534

IMG_4535

IMG_4536

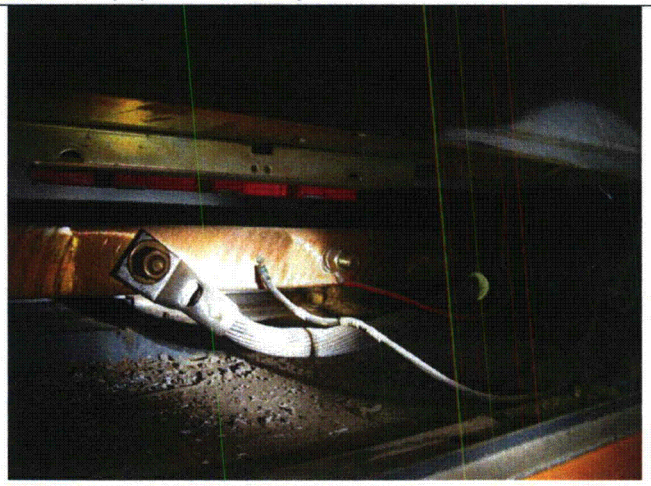
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION)

Equipment ID No.: 1A21A-460V (SEE APPENDIX C PAGE C-8)

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21A 460V,3P,3W,60HZ FOR REACTOR BUILDING



IMG_4538

IMG_4539

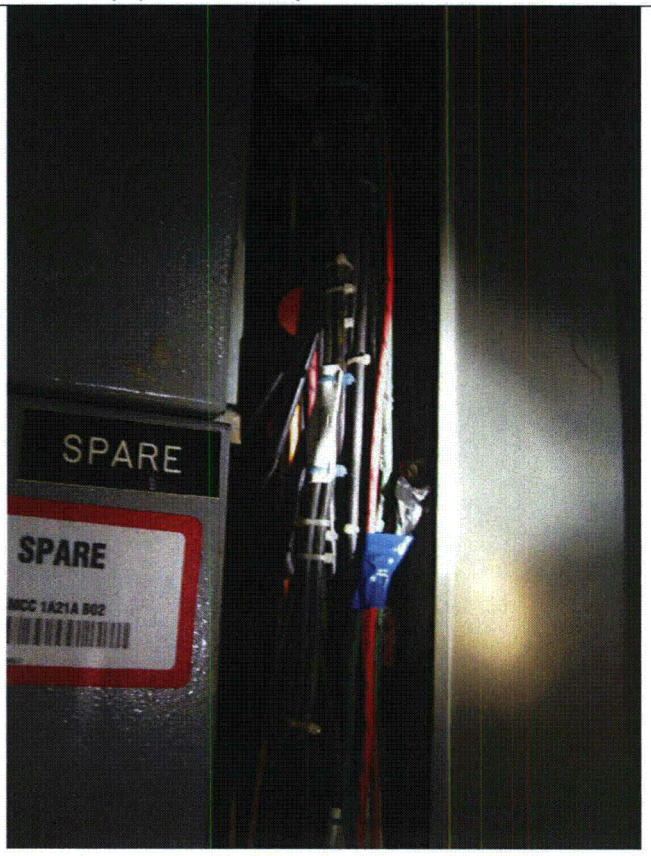
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL CABINET INSPECTION)

Equipment ID No.: 1A21A-460V (SEE APPENDIX C PAGE C-8)

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC 1A21A 460V,3P,3W,60HZ FOR REACTOR BUILDING



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Appendix AD
Area Walk-By Checklists (AWCs)

Table AD-1 provides the location of each walk-by area that was previously inaccessible and deferred, as well as a list of walkdown items associated with each area.

Table AD-1. Summary of Area Walk-By Checklists

Area	Area Description	Components Within Area	Comments
29	Trunnion Room	RK-411-1 & V-1-10	General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.
30	Drywell West Side	V-1-7 & V-1-106	General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.
31	Drywell South-West	V-1-177, V-16-1, V-1-160 & V-1-173	General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.
32	Drywell North-West	V-1-164 & V-1-175	General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 29: RB, 23

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1.	Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Yes
2.	Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Yes
3.	Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Yes
4.	Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Yes
5.	Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Yes
6.	Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Yes
7.	Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Yes

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 29: RB, 23

8.	Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? *General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.*	Yes

Comments

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 30: DW, 23

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1.	Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Yes
2.	Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Yes
3.	Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Yes
4.	Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Yes
5.	Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Yes
6.	Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Yes
7.	Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Yes

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 30: DW, 23

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? *General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.*	Yes

Comments

Evaluated by: Mark S. Etre Date: 10/26/2012

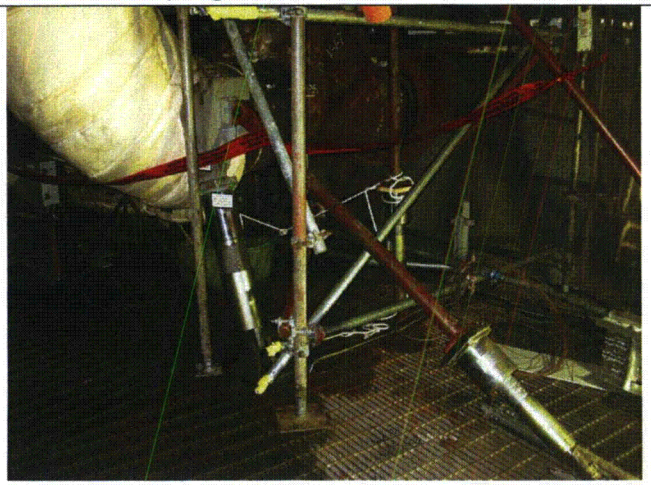
Seth W. Baker 10/26/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 30: DW, 23



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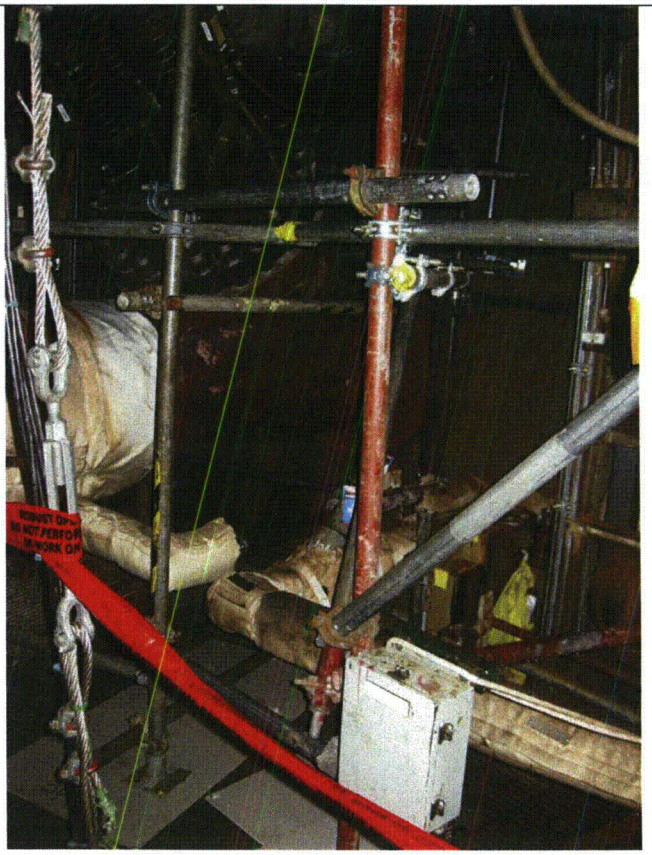

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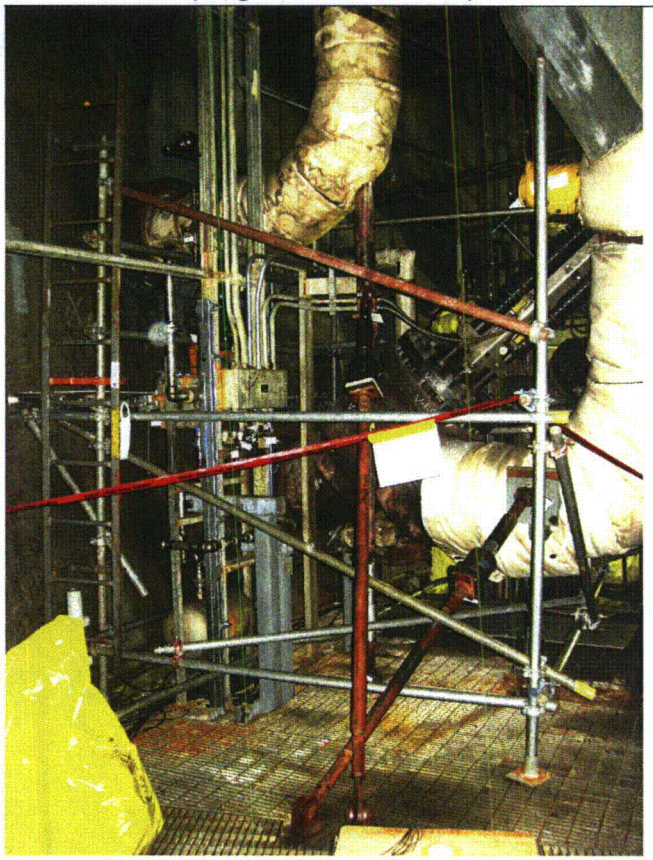
Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 30: DW, 23



IMG_4470

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 31: DW, 46

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1.	Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Yes
2.	Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Yes
3.	Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Yes
4.	Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Yes
5.	Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Yes
6.	Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Yes
7.	Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Yes

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 31: DW, 46

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? *General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.*	Yes

Comments

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 31: DW, 46

IMG_4479

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 32: DW, 46

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1.	Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Yes
2.	Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Yes
3.	Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Yes
4.	Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Yes
5.	Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Yes
6.	Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Yes
7.	Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Yes

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): Area 32: DW, 46

8.	Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? *General housekeeping concerns regarding transient materials throughout area during the outage. No soft targets in the area. Per discussions with operations all of the housekeeping concerns will be resolved prior to start–up. Scaffolding is installed per the Oyster Creek Scaffolding procedures and is Seismically restrained.*	Yes

Comments

Evaluated by: Mark S. Etre Date: 10/26/2012

Seth W. Baker 10/26/2012

Photos

Appendix AE
Plan for Future Seismic Walkdown of Inaccessible Equipment

One (1) item was not accessible during the follow-on walkdowns. This item will be walked down during a time when the equipment is accessible. Table AE-1 summarizes the reasons this item is inaccessible during normal plant operation and notes the Oyster Creek Station Issue Report IR that has been written to track completion of the Seismic Walkdown for this item.

Per Section 5.4, supplemental internal inspections of certain cabinets are required due to clarification provided by the NRC after the online Seismic Walkdowns were completed. Therefore the item identified on Table AE-1 requires a complete inspection, including internal inspection for other adverse seismic conditions.

The Area Walk-By of the vicinity of this equipment was completed previously and was documented in Appendix D of this report.

Table AE-1. Inaccessible and Deferred Equipment

Component ID	Description	Reason for Inaccessibility	Action Request ID (IR)	Resolution/ Status	Milestone Completion
DC-C 125V	125VDC POWER PANEL DC-C CENTER 'C'	Equipment always energized.	IR 1451018	Open	4Q2018

Appendix AF
Peer Review Report

This appendix includes the Peer Review Team's report on the follow-on seismic Walkdowns and Walk-Bys.

Peer Review Report
for
Near Term Task Force (NTTF) Recommendation 2.3
Seismic Walkdown Inspection
of
Oyster Creek Generating Station

Annex A

March 15, 2013

Prepared by Peer Reviewers

Michael Hand (Team Leader)
Anthony Osam-Duodu

Michael Hand / Michael Hand, SCE Peer Review Team Leader Certification Signature	4/1/13 Date

1 Introduction

1.1 OVERVIEW

This report documents the independent peer review for the Near-Term Task Force (NTTF) Recommendation 2.3: Seismic Walkdown, Annex 'A' follow-on activities performed by Exelon Oyster Creek Engineering Department for Unit 1 of the Oyster Creek Generating Station (OCGS). This peer review includes review of pages iii and ix of Report RS-12-177 as updated to reflect Annex 'A'. The peer review process includes the following activities:

- Review the selection of the structures, systems, and components (SSCs) included in this follow-on walkdown.
- Review the checklists of the items completed during the follow-on Seismic Walkdowns and Area Walk-Bys.
- Review the licensing basis evaluations.
- Review the decisions for entering the adverse seismic conditions identified during the follow-on walkdowns into the plant's Corrective Action Plan (CAP).
- Review the final submittal report.
- Summarize the results of the peer review process in the final submittal report.

The peer reviewers for OCGS, Unit 1 are Messrs. Michael Hand and Anthony Osam-Duodu, all of Oyster Creek. Mr. M. Hand is designated the Peer Review Team Leader. None of the aforementioned engineers were involved in the follow-on seismic walkdown inspection process, and so that they can maintain their independence from the project. Mr. Hand is a civil-structural engineer, with over 30 years of experience, including 13 years nuclear seismic experience. He is also a Seismic Capability Engineer (EPRI SQUG training). Mr. Osam-Duodu has over 25 years of experience covering all aspect of Civil/Structural Engineering and Project Management. He is also a Seismic Capability Engineer (EPRI SQUG training).

The peer review of the follow-on seismic walkdown inspection started on March 6, 2013.

The peer review discussions on the follow-on activities are documented herein.

No issues were identified which challenged the current licensing basis.

2 Peer Review - Selection of SSCs

2.1 PURPOSE

The purpose of this section is to describe the process to perform the peer review of the selected structures, systems, and components, (SSCs) that were included in the Seismic Walkdown Equipment List (SWEL).

However, this peer review is performed for the SSC's that were previously inaccessible and were completed during the follow-on Seismic Walkdowns and Area Walk-Bys. There are no changes to the SWEL, so the selection of new SSCs does not apply in this case.

This peer review is based on an interview with the seismic walkdown engineer (SWE) and report preparer, Mr. Wing Ho subsequent to performance of those activities.

3 Review of Follow-on Seismic Walkdown & Area Walk-By Checklists

3.1 Overview

A peer review of the remaining (Annex 'A') SWCs and AWCs was performed on March 11, 2013, after which an interview was conducted by Messrs. Hand and Osam-Duodu with the SWE trained walkdown engineer, Mr. Wing Ho, in accordance with the requirements of the EPRI Document No. 1025286 entitled "Seismic Walkdown Guidance For Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic" (SWG requirements). Mr. Ho provided input as a participant with the other SWE's, Mssrs Mark Etre and Seth Baker of Stevenson & Associates, Inc, to satisfy the peer reviewers that the walkdowns were conducted appropriately by qualified personnel in accordance with the SWG requirements.

3.2 Follow-on Seismic Walkdown Checklists

100% of the equipment inspected during the follow-on walkdown are included in the peer review, see follow-on Seismic Walkdown, and Area Walk-By Checklists presented below:

Table A3-1 Follow-on Seismic Walkdown Checklists

Component ID	Description	Observations
V-1-160	SAFETY RELIEF VALVE NR28D (SOUTH HEADER)	No concerns
V-1-164	SAFETY RELIEF VALVE NR28H (NORTH HEADER)	No concerns
V-1-173	ELECTROMATIC RELIEF VALVE NR108-A(SOUTH HEADER)	No concerns
V-1-175	ELECTROMATIC RELIEF VALVE NR108-C(NORTH HEADER)	No concerns
V-1-177	ELECTROMATIC RELIEF VALVE NR108-E(SOUTH HEADER)	No concerns
V-16-1	CU INLET ISOLATION VALVE FROM REACTOR VESSEL	No concerns
V-1-106	MAIN STEAM LINE 'A' DRAIN VALVE	No concerns
V-1-7	MAIN STEAM LINE'A' OUTLET ISOLATION VALVE(NS03-A)	No concerns
RK-411-1	MSIV'S SOLENOID AIR VALVE & EQUIPMENT MOUNTING RACK	No concerns
V-1-10	MAIN STEAM LINE'B' OUTLET ISOLATION VALVE (NS04-B)	No concerns
1A21-460V	MCC 1A21 460V,3PH,3W,60HZ FOR TURBINE BUILDING	No concerns
1A21B-460V	MCC 1A21B 460V,3P,3W,60HZ FOR REACTOR BUILDING	No concerns
1A23-460V	MCC 1A23 460V,3PH,3W,60HZ FOR REACTOR BUILDING	No concerns
1A2-460V	460V UNIT SUBSTATION 1A2 FOR REACTOR BUILDING	No concerns
1C	4160V BUS 1C SWITCHGEAR	No concerns

Table A3-2 Follow-on Seismic Walkdown Checklists for Supplemental Internal Inspections

Component ID	Description	Observations
BTCHG C1	'C' STATION BATTERY SOLID STATE STATIC CHARGER C1	No concerns
DG-1 BATTERY CHARGER	DIESEL GENERATOR UNIT #1 BATTERY CHARGER	No concerns
DG-1 SWGR	DIESEL GENERATOR #1 UNIT SWITCHGEAR	No concerns
ER18A	CORE SPRAY/AUTO DEPRESS'N SYSTEM RELAY LOGIC PANEL	No concerns
LSP-1A2	LOCAL SHUTDOWN PANEL- USS 1A2 PUMP/BREAKER CONTROL	No concerns
1A21A-460V	MCC 1A21A 460V, 3P, 3W, 60HZ, FOR REACTOR BUILDING	No concerns

Table A3-3 Follow-on Area Walk-By Checklists

Area	Area Description	Components Within Area	Observations
29	Trunnion Room	RK-411-1 & V-1-10	No concerns
30	Drywell West Side	V-1-7 & V-1-106	No concerns
31	Drywell South-West	V-1-177, V-16-1, V-1-160 & V-1-173	No concerns
32	Drywell North-West	V-1-164 & V-1-175	No concerns

3.3 EVALUATION OF FINDINGS

There were no issues that challenged the licensing bases.

The outcome of the walkdowns indicated that there were no major concerns from the inspections conducted, and the peer reviewers consider the engineering judgments made by the inspectors as appropriate and acceptable, per the EPRI Seismic Walkdown Guidance.

Further, all the outstanding uncompleted corrective action issues in Report RS-12-177 have been addressed, as shown in Tables A5-2 and A5-3 of Annex 'A'.

4 Review of Licensing Basis Assessments

There were no issues that challenged the licensing bases for the follow-on items, so there were no assessments required. The peer reviewers concur with this outcome.

5 Review Final Submittal Report & Sign-off

The final supplemental report has been reviewed by Messrs. M. Hand and A. Osam-Duodu per the requirements of EPRI Seismic Walkdown Guidance (EPRI Report 1025286), and found to be acceptable. The review comments have been duly addressed and appropriately incorporated in the Report.