E

Plan for Future Seismic Walkdown of Inaccessible Equipment

Fifteen (15) items could not be walked down during the 180-day period following the issuance of the 10CFR50.54(f) letter since they are located in areas that are normally 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 Dresden 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 clarifications 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 List

Component ID	Description	Reason for Inaccessibility	Action Request ID (IR)	Resolution/ Status	Milestone Completion
D03-0203-0001AV05	MAIN STEAM/ Isolation Valve	Located in drywell	1403575	Open	D3R22
D03-0203-0003AV26	ADS/ Target Rock Valve	Located in drywell	1403575	Open	D3R22
D03-0203-0004AV26	ADS/ Reactor Overpressure Relief Valve	Located in drywell	1403575	Open	D3R22
D03-1601-0021-V05	PRESSURE SUPPRESSION/ Drywell Purge Line Valve	Located in torus basement / catwalk	1403575	Open	D3R22
D03-1601-0022-V05	PRESSURE SUPPRESSION/ Drywell/Torus Purge Line Valve	Located in torus basement / catwalk	1403575	Open	D3R22
D03-2001-0005-V05	RB EQUIPMENT DRAIN/ Drywell Equipment Drain Line Valve	Located in torus basement / catwalk	1403575	Open	D3R22
D03-2001-0105-V05	RB EQUIPMENT DRAIN/ Drywell Floor Drain Line Valve	Located in torus basement / catwalk	1403575	Open	D3R22
D03-0202-0005AV20	REACTOR RECIRCULATION/ Recirc Pump A Discharge Valve	Located in drywell	1403575	Open	D3R22
D03-0203-0003BV26	ADS/ Electromatic Relief Valve	Located in drywell	1403575	Open	D3R22
D03-0302-0157AV05	CRD/ East Bank Scram Discharge Volume Drain Valve	Located in torus basement / catwalk	1403575	Open	D3R22
D03-0302-0156AV05	CRD/ East Bank Scram Discharge Volume Drain Valve	Located in torus basement / catwalk	1403575	Open	D3R22

Component ID	Description	Reason for Inaccessibility	Action Request ID (IR)	Resolution/ Status	Milestone Completion
D03-1301-0004-V20	ISOLATION CONDENSER/ Steam Return Line Isolation Valve	Located in drywell	1403575	Open	D3R22
D03-2301-0008-V20	HPCI/ HPCI Pump Injection Line Valve	Located in X-area	1403575	Open	D3R22
D03-0302-0082B-LS	CRD/East Bank SDV Tank Level Switch	See Note 1 below	1403575	Open	D3R22
D03-83250-A01-M05	250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)	See Note 2 below	1403575	Open	D3R22

Notes:

1) Walkdown team and assigned Equipment Operator could not find component in field. A search of Passport indicated that component is located in Control Panel 903-15. This panel is a SWEL 1 item and was walked down. Dresden SRO disagrees with location shown in Passport. Need Operations Department to guide walkdown team to location of component.

2) Equipment Operator assigned to walkdown team led team to the Unit 2 250V DC MCC #2 for this component. Equipment Operator indicated that the component is located in the aforementioned MCC. Dresden SRO questions if this is the correct location. Need Operations Department to guide walkdown team to location of component.

Table E-2. Supplemental Cabinet Internal Inspection List

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-7838-2----M05	480V AC/ MCC 38-2	(01) Motor Control Centers	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R22	IR 1403575 WO 631303	Open
D03-7839-2----M05	480V AC/ MCC 39-2	(01) Motor Control Centers	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R27	IR 1440232 WO 1388637	Open
D03-8303A----M05	250V DC/ MCC Bus #3A (ROB-RB MCC #3)	(01) Motor Control Centers	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	1427705	Open
D03-8303B----M05	250V DC/ MCC Bus #3B (ROB-RB MCC #3)	(01) Motor Control Centers	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	1427705	Open
D03-83125----P06	125V DC/ RB 125V DC Distribution Panel #3	(01) Motor Control Centers	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	1427705	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-9802-A----P06	24/48V DC/ Distribution Panel #3A	(01) Motor Control Centers	No	Tools required. Internal inspection of mountings will require removal of cover over breakers (similar to home breaker cabinet)	1Q2022	IR 1440239 WO 99053854	Open
D03-7338------S35	480V AC/ Switchgear 38	(02) Low Voltage Switchgear	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R26	IR 1440231 WO 99212406	Open
D03-7339------S35	480V AC/ 480V Switchgear 39	(02) Low Voltage Switchgear	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R27	IR 1440232 WO 538717	Open
D03-67341----S35	4160V AC/ Switchgear 34-1	(03) Medium Voltage Switchgear	No	Energized 4160VAC cabinets. Electrical safety hazard.	D3R27	IR 1440232 WO 1390287	Open
D03-7338------T10	480V AC/ Transformer 38, Feed to Switchgear 38	(04) Transformers	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R26	IR 1440231 WO 99212406	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-83250-A01-M05	250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)	(14) Distribution Panels	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	1427705	Open
D03-9802A-A21-B11	24/48V DC/ Breaker to Battery Charger #3A (+)	(14) Distribution Panels	No	Tools required. Internal inspection of mountings will require removal of cover over breakers	1Q2022	IR 1440239 WO 99053854	Open
D03-8300--3A--B05	125V DC/ Battery Charger #3A	(16) Battery Chargers and Inverters	Partial	Tools required. Most sections can be easily accessed. However the lower left section will require tools to remove covers to inspect mounting points.	1Q2013 Partial	1427705	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-8300--3---B05	125V DC/ Battery Charger #3	(16) Battery Chargers and Inverters	Partial	Tools required. Most sections can be easily accessed. However the lower left section will require tools to remove covers to inspect mounting points.	1Q2013 Partial	1427705	Open
D03-83250-3---B05	250V DC/ Battery Charger #3	(16) Battery Chargers and Inverters	Partial	Tools required. Most sections can be easily accessed. However the lower left section will require tools to remove covers to inspect mounting points.	1Q2013 Partial	1427705	Open
D00-2223-0109	CONTROL PANEL/ DG Cooling Pump Transfer Switch Status	(20) Instrumentation and Control Panels and Cabinets	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	1427705	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D00-ACP	CONTROL PANEL/ Unit 2/3 Auxiliary Control Panel	(20) Instrumentation and Control Panels and Cabinets	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	1427705	Open
D00-DGCP	CONTROL PANEL/ Unit 2/3 Diesel Generator Control Panel	(20) Instrumentation and Control Panels and Cabinets	Partial	Tools required. There are two panels at this point. The larger of the two can be opened. The smaller (mounted on the right side) cannot be opened without the use of tools. The panel label is located on the smaller panel.	1Q2013 Partial	1427705	Open
D00-NGC (This is assumed to be EPN 2/3-6600-NGT)	CONTROL PANEL/ Unit 2/3 Neutral Grounding Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	N/A	1Q2013	1427705	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-0903-0003	CONTROL PANELS/ Control Panel 903-3	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS (NO PHOTO ALLOWED)
D03-0903-0015	CONTROL PANELS/ Control Panel 903-15	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS
D03-0903-0028	CONTROL PANELS/ Control Panel 903-28	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS
D03-0903-0039	CONTROL PANELS/ Control Panel 903-39	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS (NO PHOTO ALLOWED)

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-0923-0005	CONTROL PANELS/ Control Panel 923-5	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS (NO PHOTO ALLOWED)
D03-2253-0010	CONTROL PANEL/ DG Metering and Relay Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	N/A	1Q2013	1427705	Open
D03-2253-0021	CONTROL PANEL/ DG Excitation Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	Thumbscrews. May require screwdriver to open.	1Q2013	1427705	Open
D03-2380------ PSH	HPCI/ HPCI Turbine Pressure Switch High	(20) Instrumentation and Control Panels and Cabinets	No	This is a switch, not a panel. Inspection will require some disassembly.	4Q2019	IR 1440230 WO 654449	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-7838-1-1--P06	DISTRIBUTION PANELS/ Distribution Panel 38-1-1	(20) Instrumentation and Control Panels and Cabinets	Yes	Tools required. Internal inspection of mountings will require removal of cover over breakers (similar to home breaker cabinet)	1Q2013	1427705	Open
D03-DGCP	CONTROL PANEL/ Unit 3 Diesel Generator Control Panel	(20) Instrumentation and Control Panels and Cabinets	Yes	Tools required. There are two panels at this point. The larger of the two can be opened. The smaller (mounted on the right side) cannot be opened without the use of tools. The panel label is located on the smaller panel.	1Q2013	1427705	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-NGC (This is assumed to be EPN 3-6600-NGT)	CONTROL PANEL/ Unit 3 Neutral Grounding Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	N/A	1Q2013	1427705	Open
D03-2203-0070A	INSTRUMENT RACKS/ Instrument Rack 2203-70A	(18) Instruments on Racks	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS
D03-2203-0073A	INSTRUMENT RACKS/ Instrument Rack 2203-73A	(18) Instruments on Racks	Yes	N/A	1Q2013	1427705	Open
D03-2253-0084	INSTRUMENT RACKS/ Instrument Rack 2253-84	(18) Instruments on Racks	Yes	May require a screwdriver to open.	1Q2013	1427705	Open

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
Dresden Nuclear Station Unit 3

October 24, 2012

Prepared by Peer Reviewers

Bruce M. Lory (Team Leader)
Walter Djordjevic
Tribhawan K. Ram

Bruce M. Lory	10/24/2012
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 3 of Dresden Station. 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).
- Review of a sample of the checklists prepared for the Seismic Walkdowns & Walk-Bys
- Review of the decisions for entering the potentially adverse conditions in to the plant's Corrective Action Plan (CAP)
- Review of any licensing basis evaluations
- Review of the final submittal report

1.2 Peer Reviewers

The peer reviewers for the Dresden Unit 3 Plant are Messrs. Walter Djordjevic, Bruce Lory, and Tribhawan K. Ram, all of S&A. Mr. Lory is also designated the peer review Team Leader. Other than a peer review of "in progress" seismic walkdown inspections, none of the aforementioned engineers were directly involved in the seismic walkdown inspection of equipment so that they could maintain their independence from the project. Mr. Djordjevic has an advanced degree structural engineer and 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) training. Mr. Lory is a mechanical engineer with 33 years of experience, has been trained as a Seismic Capability Engineer (EPRI SQUG training), is instructor of the Fundamentals of Equipment Seismic Qualification training course for EPRI, and is the co-instructor of the Fukushima Seismic Walkdown training course in response to NTTF 2.3. Mr. Ram is an advanced degree nuclear engineer with over 25 years of nuclear power plant experience. Mr. Lory led the seismic peer review activities and Mr. Djordjevic led the SWEL selection peer review. All peer review activities were performed by both engineers, with the exception of the peer review of the Dresden-2 SWEL. Resumes for the peer reviewers are included in Appendix A of the report.

1.3 SWEL Development

The SWEL development was performed by Mr. Tony Perez of S&A. The peer review of the SWEL development was concurrent with the SWEL development and any revisions to the SWEL after initial plant acceptance were peer reviewed before approval. The

completed SWEL Peer Review Checklist is found in Attachment 1. The discussion for the SWEL development peer review is found in Section 2.

1.4 SEISMIC WALKDOWN INSPECTION

The peer review of the seismic walkdown inspection started on July 16, 2012 with a peer check of the actual walkdowns Dresden Unit 2 by Mr. Bruce Lory. Mr. Lory joined the walkdown team for a portion of the day's planned walkdowns to observe the conduct of walkdowns and adherence to the Seismic Walkdown Guidance (SWG)[1]. An interview was conducted by Messrs. Djordjevic and Lory with the SWE inspection team on September 7, 2012 after review of a sample of the Unit 3 Seismic Walkdown Checklists (SWC) and Area Walk-By Checklists (AWC) to ascertain the quality and procedural compliance with the SWG. The discussion of the sample SWC and AWC is provided in Section 3.

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

2 Peer Review - Selection of SSCs

2.1 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 {Reference 1}, Section 3: Selection of SSCs was used as the basis for this review.

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

- UFSAR chapters 6 and 9
- SWEL 1 List
- P&IDs M-362 and M-373: Fuel Pool Cooling System

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

- Tony Perez

This peer review utilized the checklist shown in Reference 1 Appendix F: Checklist for Peer Review of SSC Selection.

2.2 Unit 3 SWEL 1 Development

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

1. **Verification that the SSCs selected represented a diverse sample of the equipment required to perform the following five safety functions:**

   A. Reactor Reactivity Control (RRC)

   B. Reactor Coolant Pressure Control (RCPC)

   C. Reactor Coolant Inventory Control (RCIC)

   D. Decay Heat Removal (DHR)

   E. 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. This conclusion was based on a review of UFSAR chapters 6 and 9, and SWEL 1 which determined that all five safety functions (RRC, RCPC, RCIC, DHR, and CF) are adequately represented.

2. **Verification that the SSCs selected include an appropriate representation of items having the following sample selection attributes:**

   A. Various types of systems

   B. Major new and replacement equipment

   C. Various types of equipment

   D. Various environments

   E. Equipment enhanced based on the findings of the IPEEE

   F. 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. The justification for this conclusion is: a) Based on a review of UFSAR chapters referenced above and the SWEL 1 list, it was determined that appropriate variety of equipment and systems are represented (e.g., EDG, EDG Fuel Oil Transfer, EDG Cooling Water, LPCI, HPCI, Batteries, Battery Chargers, Low and Med Vol Switchgear and MCCs); b) The "New or Replace" equipment are indicated as such; c) A variety of location environments are included: e.g., MCCs (TB and RB), Pumps (TB and RB), Tanks and Heat Exchangers (TB and RB), and Valves (RB @ EL 476.5, 517.5, and 570); d) The IPEEE Enhancement related equipement is indicated as such; and e) The risk quantification has been included in the "Comments" column.

   Note: Because of accessibility reasons, some equipment has appropriately been deferred to Outage.

2.3 UNIT 3 SWEL 2 DEVELOPMENT

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

1. **Verification that SFP related items were considered and appropriately added to SWEL 2.**

   This peer review determined that there were no spent fuel pool cooling system Seismic Category 1 items. This determination is based on a review of FSAR chapter 9 and Fuel Pool Cooling System P&IDs M-362 and M-373.

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

   This peer review determined that an appropriate level of justification was documented for having no items on SWEL 2. The justification for not including any Seismic Category I Structure has appropriately been documented in the interim

report. There are no rapid drain down related components in SWEL 2. Appropriate justification for this item is included in the interim report as well.

2.4 PEER REVIEW FINDINGS – SELECTION OF SSCs

This peer review found that the process for selection for SWEL 2 SSCs was consistent with the process outlined in Reference 1 Section 3: Selection of SSCs.

The peer review checklist for the SWEL is contained in Attachment 1 of this document.

This peer review resulted in no additional findings.

2.5 RESOLUTION OF PEER REVIEW COMMENTS – SELECTION OF SSCs

All comments initiated through the peer review process were minor and were resolved. There are no outstanding issues that require resolution.

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

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

3.1 Overview

After review of the SWCs and AWCs, an interview was conducted by Messrs. Djordjevic and Lory with the SWE inspection team on September 28, 2012 in accordance with the SWG requirements to discuss and clarify completion of the SWE, AWC and licensing basis evaluations. It was concluded that the walkdown team performed their assessments and evaluations properly.

3.2 Sample Checklists

Table 3-1 lists the SWC and AWC samples which represent 12% of the SWCs and 24% of the AWCs. The sample includes the equipment inspected during the peer review 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 3

No.	Equipment (GIP) Class	Walkdown Item	Location	Observations
D03-5741-0048BV72	7	Control Room Ventilation SW Supply Valve	Turbine Bldg, EL 534 ft	None noted
D00-9400-0102-R15	11	Control Room Ventilation Refrig Condensing Unit	Turbine Bldg, EL 534 ft	None noted
D00-9400-0104BF05	9	Control Room Ventilation AFU Booster Fan	Turbine Bldg, EL 534 ft	None noted
D00-ACP	20	Control Panel Unit 2/3 Aux Control Panel	Turbine Bldg, EL 504 ft	None noted
D03-0302-0019AV27	8	CRD Backup Scram SV	Reactor Bldg. EL 517 ft	Recommended that the comment regarding the missing support clamp on copper pipe near Valve 3-302-20B (IR 1395804), be moved from question 11 to the comments section of the SWC, since the comment does not affect the safety function of the CRD Backup Scram SV.
D03-0302-0082B-LS	18	CRD East Bank SDV Tank Level Switch	Control Rm., EL 534 ft.	None noted

No.	Equipment (GIP) Class	Walkdown Item	Location	Observations
D03-0302-0082B-LT	18	CRD East Bank SDV Tank Level Transmitter	Reactor Bldg. EL 517 ft	None noted
D03-0903-0015	20	Control Panel 903-15	Control Rm., EL 534 ft.	None noted
D03-0903-0028	20	Control Panel 903-28	Turbine Bldg, EL 517 ft	None noted
D03-1501-0044AP30	5	CCSW Pump A	Turbine Bldg, EL 495 ft	None noted
D03-1502A-P30	6	LPCI/LPCI Injection Pump	Reactor Bldg., EL 476 ft	None noted
D03-1503A-115		LPCI Heat Exchanger	Reactor Bldg., EL 476 ft	None noted

Area Walkdown Description	Observations
AWC-U3-01, Cntrl Rm. (near 903-28)	No concerns
AWC-U3-02, AEER Rm. (near 903-28)	No concerns
AWC-U3-03, Battery Charger Rm. – El. 38 Ft.	No concerns
AWC-U3-04, Turbine Bldg. (near 3A charger)	No concerns
AWC-U3-05, Battery Rm. (near 903-28)	No concerns
AWC-U3-26, Reactor Bldg. – SDC Pump Rm.	No concerns
AWC-U3-27, Reactor Bldg.-TIP Rm.	No concerns
AWC-U3-27, Reactor Bldg.-Torus Catwalk	No concerns

3.3 EVALUATION OF FINDINGS

There were no findings of seismic significance. The scaffolding and seismic housekeeping procedures were reviewed by the SWEs to gain a full understanding of the plant practices. There were no significant concerns noted in Unit 3 with regard to scaffold erection. The scaffolds were properly tied off and braced, and properly tagged with respect to the procedure.

With regard to seismic housekeeping, there were instances found of open S-hooks in the plant. Generally, if they were found to not to contribute to a credible seismic interaction they were adjudged acceptable and not dispositioned to an IR. Similarly, if an item

posed a potential proximity hazard to a vital component and it was removed "on the spot" in accordance with the housekeeping procedure, then it was not dispositioned to an IR. However, in all instances the Seismic Walkdown Checklist (SWC) documented the details of the occurrence, the action taken (if any) and the conclusion rendered by the SWE inspectors. Most importantly, if the situation warranted a correction then an IR was specifically generated for that component or area in the case of area walk-bys.

The peer review of the SWCs included a recommendation for panels/cabinets which could be opened and inspected for loose or missing component mounting hardware. It was recommended that a comment be put under question 11 to denote what were the results of the internal inspection. If no loose or missing mounting hardware was found or if mounting hardware was found loose/missing, a sentence to that affect should be made in the SWC.

4 Review of Licensing Basis Assessments

Because none of the issues identified during the Seismic Walkdowns or Area Walk-Bys were determined to be "Potentially Adverse Seismic Conditions, no Licensing Basis Evaluations were performed.

5 Review Final Submittal Report & Sign-off

The final submittal report has been reviewed by Messrs. Bruce M. Lory and W. Djordjevic and found to meet the requirements of the EPRI 1025286 – Seismic Walkdown Guidance (Reference 1).

6 References

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

See Section 9 of report for additional references.

Peer Review Checklist for SWEL

Instructions for Completing Checklist

This peer review checklist may be used to document the review of the Seismic Walkdown Equipment List (SWEL) in accordance with Section 6. 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☐
   Appropriate equipment has been included to maintain the five safety functions: RRC, DHR, RCIC, RCPC, and CF

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

   a. Various types of systems? Y☒ N☐
      Various system types (e.g., HPCI, LPCI, ADS/SRV, CRD, DG, RBCCW, SW, and support systems such as MCCs and distribution panels) have been included.

   b. Major new and replacement equipment? Y☒ N☐
      "New or Replace" equipment (from the major MOD list) are included in the list.

   c. Various types of equipment? Y☒ N☐
      The equipment represents all required 21 types except 13 and 19. The screenings #1, #2, and #3 resulted in no equipment in the latter two categories.

   d. Various environments? Y☒ N☐
      Appropriate environments (e. g., REACTOR and TURBINE buildings) have been included.

   e. Equipment enhanced based on the findings of the IPEEE (or equivalent) program? Y☒ N☐
      Included as indicated in the column, "IPEEE Enhancement."

Peer Review Checklist for SWEL

f. Were risk insights considered in the development of SWEL 1? Y☒ N☐
Risk quantifications provided in the "Comments" column

3. For SWEL 2:

a. Were spent fuel pool related items considered, and if applicable included in SWEL 2? Y☒ N☐
There is no equipment on SWEL2.

b. Was an appropriate justification documented for spent fuel pool related items not included in SWEL 2? Y☒ N☐
Provided in the Submittal Report

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

All items on SWEL 1 have a Seismic Licensing basis.

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

Peer Reviewer #1: *TK Ram* TK Ram Date: *7/20/12*

Peer Reviewer #2: *Walter Djordjevic* W Djordjevic Date: *8/20/12*

G IPEEE Vulnerability Status

Table G-1 lists the plant improvements, the IPEEE/SQUG proposed resolution, the actual resolution and resolution date.

Table G-1. IPEEE Improvements Status

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Hydraulic Control Unit D02-0305------ H20 D03-0305------ H20	1) No seismic capacity based on earthquake experience or generic seismic testing ruggedness data is available for class 0 equipment. 2) Nearby gas bottles are restrained by only a single chain.	1) No actions required. Upon further review, Hydraulic Control Unit consists of accumulator and valves which are in the earthquake experience and generic seismic testing ruggedness data. Rack load path and anchorage are separately analyzed and are acceptable. CRD piping and scram header very well seismically supported. RESOLUTION #11 2) Gas bottles need a second chain near the bottom. RESOLUTION #1	1) Condition resolved in original IPEEE report. 2) The worst case gas bottle with a single chain has been verified for adequacy based on seismic testing (Ref. NDIT No. SEC-DR- 00-001).	1) 6/1997 2) 1/4/2000
Motor Control Centers D02-7820-03—M05 D03-7830-02—M05	MCCs are not anchored to the equipment pad.	Provide positive anchorage system. RESOLUTION #9	Condition has been deleted from the Program. The MCCs power the Refuse Pumps. The Refuse Pumps are not being credited for Isolation Condenser makeup for the loss of dam failure scenario; therefore, the MCCs are not required for safe shutdown or included in the SPEL.	3/31/2000

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Bus and Panel D02-8302A----- M05	1) Locker/storage cabinet located next to bus on rear side. 2) Seismic demand exceeds capacity.	1) Positively anchor locker or re-locate it. RESOLUTION #5 2) Develop realistic, median amplified floor spectra to potentially reduce seismic demand to an acceptable level. RESOLUTION #11	1) Locker/storage cabinet relocated. Condition resolved in original IPEEE report. 2) Realistic median centered response spectra were not useful. Modification added bracing to improve capacity. Ref. EC 341875 & WO 558649	1) 5/1996 2) 10/30/2003
Motor Control Center D03-7839-2---- M05	Adjacent MCC 35-1 is inadequately anchored (only tack welded in rear).	Anchorage modification needed. RESOLUTION #9	Anchorage has been modified. Ref. EC 7583 & WO 99103698	5/30/2003
Bus and Panel D02-83125----- P06	Seismic demand exceeds capacity.	Develop realistic, median amplified floor spectra to potentially reduce seismic demand to an acceptable level. RESOLUTION #11	Realistic median centered response spectra were not useful. Modification added bracing to improve capacity. Ref. EC 341875 & WO 558649	10/30/2003
Bus and Panel D03-8303A----- M05 D03-8303B----- M05 D03-83125----- P06 D02-8302B----- M05	1) Seismic demand exceeds capacity. 2) Embedded angle pullout capacity is insufficient to hold down the cabinet during the event of SSE.	1&2) Develop realistic, median amplified floor spectra to potentially reduce seismic demand to an acceptable level. RESOLUTION #11	1&2) Realistic median centered response spectra were not useful. Modification added bracing to improve capacity. Ref. EC 341875 & WO 558649 (Unit 2) EC 341876 & WO 558699 (Unit 3)	Unit 2 10/30/2003 Unit 3 11/5/2003

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Switchgear D02-67241----S35	Spare Breakers are too close	Relocate spare breakers RESOLUTION #5	A walkdown confirmed that the spare breakers have been relocated.	1/7/2003
Motor Control Center D02-7829-8----M05	Overhead unanchored emergency light # 251C (battery powered).	Positively secure emergency light. RESOLUTION #3	A walkdown confirmed that the emergency light has been positively secured.	5/6/1999
Panel D02-8302B-1---P06 D02-83125-1---P06	A 6' long (tall) cable tray raceway system hanger which is rod hung and laterally unbraced may sufficiently displace to impact the Panel.	Determine whether or not panel(s) contains essential relays. If it does, brace raceway to preclude impact potential. RESOLUTION #6	Condition resolved in original IPEEE report. Panels do not contain essential relays; therefore, no actions are required to preclude impact potential.	4/1996
Panel D03-8303A1-2-P06	1) Lights overhead have open hooks. 2) D.G. stack rises adjacent to panel and is a potential interaction hazard.	1) Close Open S-Hooks. RESOLUTION #2 2) Evaluate seismic structural integrity of exhaust stack RESOLUTION #6.	1) Condition resolved in original IPEEE report. The S-hooks have been closed. 2) The seismic structural integrity is acceptable based on evaluation (Ref. SEWS, Rev. 1).	1) 5/1996 2) 3/26/1998

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Motor Control Center D02-7829-2---- M05	1) Nearby gas bottles secured by only 1 chain. 2) Lights overhead have open hooks. 3) Unrestrained flammable storage cabinet adjacent to MCC.	1) Gas bottles need a second chain near the bottom. RESOLUTION #1 2) Close open S-hooks. RESOLUTION #2 3) Positively anchor cabinet or re-locate. RESOLUTION #5	1) The worst case gas bottle with a single chain has been verified for adequacy based on seismic testing (Ref. NDIT No. SEC-DR-00-001). 2) The S-hooks have been closed. Condition resolved in original IPEEE report. 3) The cabinet has been relocated. Condition resolved in original IPEEE report.	1) 1/4/2000 2) 5/1996 3) 5/1996
Panel D03-8303B1---- P06 D03-9802-A---- P06 D03-9802-B---- P06	1) Lights overhead have open hooks. 2) Emergency light #329 (battery powered) not secured.	1) Close open S-Hooks. RESOLUTION #2 2) Positively secure emergency light. RESOLUTION #3	1) The S-hooks have been closed. Condition resolved in original IPEEE report. 2) A walkdown has confirmed that the light has been positively secured.	1) 5/1996 2) 5/6/1999
Panel D03-8303A1-1-- P06 D03-83125-3--- P06	Lights overhead have open hooks.	Close open S-Hooks. RESOLUTION #2	The S-hooks have been closed. Condition resolved in original IPEEE report.	5/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Motor Control Center and Panel D02-7828-3----M05 D02-7829-4----M05 D03-7838-2----M05 D03-7838-3----M05 D02-2202-0073AP05 D02-2202-0073BP05 D03-2203-0006 D02-2252-0084-P05	Lights overhead have open hooks.	Close open S-Hooks. RESOLUTION #2	The S-hooks have been closed. Condition resolved in original IPEEE report.	5/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Motor Control Center and Panel D02-7828-7----M05 D03-7838-1-1--P06 D02-9205-A----V05 D02-9205-B----V05 D02-9206-A----V05 D02-9206-B----V05 D03-9206-A----V05 D03-9206-B----V05	Nearby gas bottles only restrained by a single chain	Gas bottles need a second chain near the bottom. RESOLUTION #1	1) The worst case gas bottle with a single chain has been verified for adequacy based on seismic testing (Ref. NDIT No. SEC-DR-00-001). 2) The NDIT identified the gas bottle by MCC D03-7838-1-1 as much smaller and not represented by the test gas bottle; therefore, required a lower support and chain. A walkdown confirmed that the gas bottle has been relocated away from the MCC.	1) 1/4/2000 2) 1/7/2003
Motor Control Center and Panel D02-83250-----M05	1) Nearby gas bottles only restrained by a single chain. 2) Anchorage capacity less than demand	1) Gas bottles need a second chain near the bottom. RESOLUTION #1 2) Develop realistic, median amplified floor spectra to potentially reduce seismic demand to an acceptable level. RESOLUTION #11	1) The worst case gas bottle with a single chain has been verified for adequacy based on seismic testing (Ref. NDIT No. SEC-DR-00-001). 2) Per Attachment 2 to response to NRC RAI, Dresden Letter PSLTR #00-0068, no actions are required.	1) 1/4/2000 2) 3/30/2000

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Motor Control Center and Panel D02-9802-A----P06	1) Nearby gas bottles only restrained by a single chain. 2) Anchorage capacity less than demand	1) Gas bottles need a second chain near the bottom. RESOLUTION #1 2) Develop realistic, median amplified floor spectra to potentially reduce seismic demand to an acceptable level. RESOLUTION #11	1) The worst case gas bottle with a single chain has been verified for adequacy based on seismic testing (Ref. NDIT No. SEC-DR-00-001) 2) Per Attachment 2 to response to NRC RAI, Dresden Letter PSLTR #00-0068, no actions are required.	1) 1/4/2000 2) 3/30/2000
Panel D02-0902-0015 D02-0902-0017 D02-0902-0019 D02-0902-0036 D03-0903-0015 D03-0903-0017 D03-0903-0019 D03-0903-0036 D02-0902-0004 D03-0903-0004	The internal cable tray raceway system hanger is rod hung and transversely unrestrained. It can displace sufficiently to impact the Panel which has only 1" clearance from the end of the cross-member. Cabinets do contain essential relays.	Restrain cross-members by "tying" them to front and back panels. This will preclude impact hazard as well as connecting front and rear portions of the main control board increasing anchorage capacity seismic margin. Crimp light hooks. RESOLUTION #6	Proposed modifications to restrain cross-members have been completed. Modification EC 7526 & WO 558649 (Unit 2) and EC 7527 & WO 558699 (Unit 3)	Unit 2 10/29/2001 Unit 3 10/22/2002

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Panel D03-0903-0046	1) Located adjacent to a conduit pull-box and it is an impact hazard. 2) Adjacent tool box adjudged a hazard.	1) Insert neoprene or similar soft material between pull-box and cabinet to reduce significance of impact. RESOLUTION #6 2) Re-locate storage tool box. RESOLUTION #5	1) Neoprene padding has been installed between the pull-box and cabinet in accordance with WR 990056423 to reduce significance of impact. 2) The tool box has been relocated. Condition resolved in original IPEEE report.	1) 12/17/1999 2) 5/1996
Panel and Transformer D02-2202-0008 D02-7229------ T10[1] D02-0902-0041	Adjacent emergency lights #293, #299, #220, and #313 (battery powered) are missing straps or are unrestrained.	Positively restrain emergency lights. RESOLUTION #3	A walkdown has confirmed that the lights have been positively restrained. Light #299 should be #229.	5/6/1999
Battery Charger D03-9802-3BNEGB05 D03-9802-3BPOSB05	Overhead emergency light #329 (battery powered) is shelf mounted and unrestrained.	Positively restrain emergency light. RESOLUTION #3	A walkdown has confirmed that the Emergency light #329 has been positively restrained.	5/6/1999

[1] Actual equipment number is D02-7329------T10

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Switchgear D02-7328------ S35 D02-7329------ S35	1) Overhead trolley hoist is an impact hazard and needs to be parked. 2) Emergency light #299 (battery powered) not restrained. 3) Anchorage capacity less than demand	1) Use a clamp or similar device to prevent the hoist from rolling freely. RESOLUTION #4 2) Secure emergency light. RESOLUTION #3 3) Develop realistic, median amplified floor spectra to potentially reduce seismic demand to an acceptable level. RESOLUTION #11	1) Condition for 2-7328 resolved in original IPEEE report based on confirmation of no essential relays in the switchgear. No actions are required for 2-7329 as the hoist is a tool that has an annual preventative maintenance inspection (PM 184453-01) controlled by Procedure MA-DR-MM-5-58001 that checks the locking device.. 2) The light has been positively restrained. The correct light number is 229. 3) Per Attachment 2 to response to NRC RAI, Dresden Letter PSLTR #00-0068, no actions are required.	1) 4/1996 for 2-7328. 2) 5/6/1999 3) 03/30/2000
Switchgear D03-7338------ S35	Overhead trolley hoist, open S-hook on overhead florescent light and racking crank hanging between breaker and transformer are all impact hazards.	1) Use a clamp or similar device to prevent the hoist from rolling freely. RESOLUTION #4 2) Close open S-Hooks. RESOLUTION #2 3) Secure or re-locate crank. RESOLUTION #5	1) Condition resolved in original IPEEE report. No actions are required since it has been verified that there are no essential relays within the switchgear. 2) The S-Hooks have been closed. Condition resolved in original IPEEE report.	1) 4/1996 2) 5/96

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Switchgear D03-7339------ S35	Overhead trolley hoist, open S-hook on overhead florescent light, racking crank hanging between breaker and transformer and adjacent unanchored 4KV gear box locker are all impact hazards.	1) Use a clamp or similar device to prevent the hoist from rolling freely. RESOLUTION #4 2) Close open S-Hooks. RESOLUTION #2 3) Secure or re-locate crank. RESOLUTION #5 4) Anchor or re-locate locker. RESOLUTION #5	1) Condition resolved in original IPEEE report. No actions are required since it has been verified that there are no essential relays within the switchgear. 2) The S-Hooks have been closed. Condition resolved in original IPEEE report. 3) The racking crank has been relocated in accordance with Mod E12-3-95-221 & WO 95054280. Condition resolved in original IPEEE report. 4) The locker has been relocated in accordance with E12-3-95-220 & WO 95054281. Condition resolved in original IPEEE report.	1) 4/1996 2) 5/1996 3) 08/12/1995 4) 08/11/1995

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Switchgear D03-6734------ S35	Safety equipment locker adjacent to cubicle, spare breakers marginally chained to wall, and additional unanchored spare cubicles 5' away from line-up are interaction hazards.	1) Anchor or re-locate locker. RESOLUTION #5 2) Secure or re-locate spare breakers. RESOLUTION #5	1) Equipment locker has been relocated. Condition resolved in original IPEEE report. 2) Spare breakers have been relocated. Condition resolved in original IPEEE report.	1) 5/1996 2) 5/1996
Panel D03-2202-0070A D03-2203-0070B D02-0902-0033 D02-2203-0070A D02-2202-0070B D02-0902-0039 D02-0902-0047 D03-0903-0047 D03-0903-0032	1) Panel is not bolted to adjacent panel 2) Panel D03-0903-0052 is missing a bolt and is adjacent to Safe Shutdown Panels D03-2203-70A & B	1) Determine whether or not panel(s) contains essential relays. If they do, connect (bolt) panels together to preclude impact potential. RESOLUTION #8 2) Repair/Replace Bolt RESOLUTION #14	1) Panels D02-2202- 70A and D03-2203-70A are bolted to adjacent Panels D02-2202-70B and D03-2203-70B, respectively. Panel D03-2203-70B is also bolted to the adjacent panel 903-27 (Ref. ECN No. 12- 00854E). The remaining panels have been bolted to adjacent panels by modification EC 7528 & WO 99134628 (Unit 2) and EC 7529 & WO 99134630 (Unit 3). 2) No actions are required. A subsequent walkdown has verified that all bolts are tightened in place.	1) Unit 2 10/29/2001. Unit 3 9/26/2000 2) 5/6/1999

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Panel D02-0902-0046	Panel not bolted to adjacent "low boy" console.	Determine whether or not panel(s) contains essential relays. If they do, connect (bolt) panels together to preclude impact potential. RESOLUTION #8	The "low boy" console (economic generation control (EGC) panel) has been retired and removed via modification EC 7998 & WO 99204714.	10/13/2002
Panel D02-0902-0028	1) One anchor projected out and loose. 2) There is 1/4" gap between the panel and the surface of the concrete and panel contains essential relays. 3) Anchorage capacity less than demand.	1) The loose anchor has been fixed. RESOLUTION #14 2) Shim the gap to close it. RESOLUTION #6 3) Develop realistic, median amplified floor spectra to potentially reduce seismic demand to an acceptable level. RESOLUTION #11	1) Condition resolved in original USI A-46 report. The loose anchor has been fixed. 2) No actions are required. A subsequent walkdown found the panel to be true level and any gap between the concrete and panel to be insufficient to create an interaction. 3) Additional evaluation of the panel determined its HCLPF capacity to be > 0.3g.	1) 6/1996 2) 5/6/1999 3) 03/31/2000

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Panel D03-0903-0033	1) Panel is not bolted to adjacent panel. 2) There is 1/8" gap between the panel and the surface of the concrete and panel contains essential relays.	1) Determine whether or not panel(s) contains essential relays. If they do, connect (bolt) panels together to preclude impact potential. RESOLUTION #8 2) Shim the gap to close it. RESOLUTION #6	1) The panel contains essential relays. Modification EC 7529 & WO 99134630 bolted the panel to adjacent panel. 2) No actions are required. A subsequent walkdown found the panel to be true level and any gap between the concrete and panel to be insufficient to create an interaction.	1) 9/26/2000 2) 5/6/1999
Cooler D03-5746-A----H15 D03-5746-B----H15 D02-5746-A----H15 D02-5746-B----H15	The attached piping may not have enough flexibility.	Coolers are rod hung and thus flexible. Laterally restrain coolers to preclude piping rupture potential or evaluate effects of loss of service water inventory and loss of cooling capability. RESOLUTION #7	Modifications to laterally restrain coolers to preclude piping rupture potential have been completed. EC 7619 & WO 99188333 (Unit 2) and EC 18034 & WO 99126056 (Unit 3).	Unit 2 10/25/2001. Unit 3 10/20/2002.
Battery Charger D03-8300--3---B05	Anchorage is inadequate (2 clips).	Equipment has been modified to improve anchorage (Mod E12-3-96-225). RESOLUTION #9	Condition resolved in original IPEEE report. Modification E12-3-96-225 & WO 96097752 has improved anchorage of the battery charger.	12/23/96

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Battery Charger D00-83250-0---B05 D02-83250-2---B05	Unanchored.	Equipment has been modified to improve anchorage (Mod E12-0-96-213 & E12-2-96-236). RESOLUTION #9	Condition resolved in original IPEEE report. Battery chargers have been modified to improve anchorage (Modifications E12-0-96-213 & WO 96097748 and E12-2-96-236 & WO 96097749).	Unit 2/3 01/09/97 Unit 2 01/21/97
Vertical Pump D02-1502-A----P30 D02-1502-B----P30 D02-1502-C----P30 D02-1502-D----P30	Nozzle loads should be considered in the ANCHOR evaluation but information on nozzle loads is incomplete.	Provide nozzle loads for evaluation. RESOLUTION #9	Pump anchorage evaluations have been performed with inclusion of nozzle loads (Ref. revision 1 of SEWS for pumps).	3/27/98
Horizontal Pump D03-1501-0044AP30 D03-1501-0044BP30 D03-1501-0044CP30 D03-1501-0044DP30	Piping vertically supported but has very little lateral restraint and therefore piping loads should be considered in evaluating the anchorage but information on nozzle loads is incomplete.	Provide nozzle loads for evaluation. RESOLUTION #9	Pump anchorage evaluations have been performed with inclusion of nozzle loads (Ref. revision 1 of SEWS for pumps).	3/27/98

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Valve D02-2301-0005-V20 D03-2301-0005-V20 D03-2301-0008-V20	Did not meet GIP offset rules.	Valve extended operator accelerations from IE79-14 piping analysis to be obtained and used in the evaluation. RESOLUTION #11	Calculation CE091.0208 shows all valves have greater than 0.3g capacity.	04/14/94
Valve D02-8501-0005AV05 D02-8501-0005BV05	AOVs are supported off 1/2" diameter tubing.	Perform more rigorous analysis and/or modify support of the valve. RESOLUTION #11	The 1/2" diameter tubing has been qualified based on subsequent evaluation (Ref. DOC ID #5995877).	8/2/1999
Valve D02-0302-0019AV27	The condulet coming from the valve was open exposing the wires.	Repair condulet. RESOLUTION #14	Condulet cover has been installed. Condition resolved in original IPEEE report (Work Request 94038586).	12/1997
Horizontal Pump D02-5203----- P30 D03-5203----- P30	Unrestrained emergency light #209 (battery powered) is overhead.	Positively secure emergency light. RESOLUTION #3	A walkdown has confirmed that the light has been positively secured.	5/6/1999

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Switchgear D02-6723------ S35 D02-6724------ S35	1) Spare breakers are too close. 2) Open hooks on light fixtures is overhead. 3) Panel 2-6724 is not bolted to adjacent panels.	1) Relocate spare breakers. RESOLUTION #5 2) Close S-hooks. RESOLUTION #2 3) Not applicable. Condition resolved in original IPEEE report. RESOLUTION #8	1) The spare breakers have been relocated. Condition resolved in original IPEEE report. 2) The S-hooks have been closed. Condition resolved in original IPEEE report. 3) Condition resolved in original IPEEE report. No actions are required. A subsequent walkdown verified that the panels are bolted together.	1) 5/1996 2) 5/1996 3) 4/12/1996
Switchgear D02-67231----- S35 D03-67341----- S35	1) A safety equipment locker immediately adjacent to switchgear is an interaction hazard. 2) PCB storage tank behind switchgear is rod hanger restrained at mid-height. It is a flooding hazard because of sight glass at bottom of tank and essential relays inside the switchgear.	1) Positively anchor locker or re-locate it. RESOLUTION #5 2) Close upper and lower sight glass valves to prevent loss of oil if the glass breaks, or restrain bottom of tanks to preclude it from moving. RESOLUTION #6	1) The locker has been relocated. Condition resolved in original IPEEE report. 2) Condition relosved in IPEEE, Rev. 1 report. Sight glass valves have been closed to prevent loss of oil if the glass breaks.	1) 5/1996 2) 3/31/2000

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Panel D03-2203-0073A D03-2203-0073B	1) Overhead heater has only support rod and should have two. Thus, it is an impact hazard. 2) Overhead lighting has one open S-hook and is an impact hazard. 3) Overhead fire line is judged not to be seismically qualified by SRT. It is a flooding hazard because of essential relays inside panel.	1) Repair overhead heater support. RESOLUTION #14 2) Close lighting S-hook. RESOLUTION #2 3) Seismically evaluate fire piping and determine status. RESOLUTION #7	1) The heater support has been repaired in accordance with WR 960044408. 2) The S-hook has been closed. Condition resolved in original IPEEE report. 3) No actions are required. Fire piping has been seismically evaluated to be adequate (ref. DOC ID# 6012466).	1) 8/15/1997 2) 5/1996 3) 8/26/1999
Valve D03-0302-0157AV05	Suction line of pump (4-1/2" in diameter) touches the valve yoke.	Restrain line so it cannot impose force onto the valve. RESOLUTION #6	The suction line of the pump has been moved away from the valve yoke to preclude interaction. (Ref. WO #468530)	10/9/2003

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Valve D03-1501-0032BV20 D02-1601-0023--V27 D03-0203-0002BV05	1) Potential impact with nearby piping, grating or steel. 2) Valve 2-1601-23 is missing a bolt.	1) Determine piping displacement from piping analysis and compare to available clearance. RESOLUTION #6 2) Install missing bolt. RESOLUTION #14	1) No actions are required. Valve 3-1501-32B has been evaluated for its yoke displacement and found to be within the available clearance with the grating (Ref. DOC ID# 5996462). Valve 2-1601-23 was replaced per EC 331868 & WO 407776 and Valve 3-0203-2B is qualified per calculation DRE00-0061. 2) Bolt has been installed in accordance with Work Request 950096788-01.	1) Valve 3-1501-32B 8/4/1999 Valve 2-1601-23 08/14/2003 Valve 3-0203-2B per DRE00-0061 08/23/2000 2) 6/6/1998
Panel D02-2252-0010	Base channel is secured to floor by 4 friction clips (one in each corner) Neighboring Neutral Grounding Cabinet is secured by friction clips.	Modify anchorage to an acceptable, positive anchorage design. RESOLUTION #10	Anchorage modified to positive anchorage design via EC 7663 & WO 99135802.	1/17/2001

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Panel D00-NGC	Panel is right against a column support on one side and an adjacent panel on the other.	Determine whether or not panel(s) contains essential relays. If they do, connect (bolt) panels together to preclude impact potential. Insert neoprene or like material between column and panel, or positively secure panel to column. RESOLUTION #6	The panel has been bolted to the adjacent panel and to the column support via modification EC 7663 & WO 99135800.	1/24/2002
Panel D00-2223-0033 D00-2223-0041	Panel is too close to two adjacent panels that it is not bolted to.	Determine whether or not panel(s) contains essential relays. If they do, connect (bolt) panels together to preclude impact potential. RESOLUTION #8	The panels contain essential relays. The panels have been bolted together via modification EC 7662 & WO 99135801.	9/14/2001
Damper D03-5772-0102-D05	1) Damper hung in poorly supported ductwork (already sagging). 2) Overhead light has open S-Hooks.	1) Repair ductwork. RESOLUTION #14 2) Close S-Hooks. RESOLUTION #2	1) The duct support rod has been replaced in accordance with WR 960043286. 2) The S-hooks have been closed. Condition resolved in original IPEEE report.	1) 10/23/1996 2) 5/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Battery Rack D02-9802-A----B04 D02-9802-B----B04 D03-9802-A----B04 D03-9802-B----B04	1) There are spaces between the batteries and along the front and back of the batteries. 2) The battery cells are more than 10 years old.	1) Tighten battens so they are snug (1/16" or less gap) or insert spacers to make up the gaps. RESOLUTION #12 2) Determine qualified life of cells or replace. RESOLUTION #13	1 & 2) Determination of qualified life not required. New batteries have been installed in accordance with modifications M12-2-95-003 & WOs 97077161 / 97094589 and M12-3-95-003 & WOs 95068434 with proper spacers.	1 & 2) Unit 2 03/20/1998 Unit 3 04/22/1997
Battery Rack D02-8300--BC--B04 D02-83250-----B04 D03-8300--BC--B04 D03-83250-----B04	The Styrofoam, on the front and back, is not full-height and could easily slip out during a seismic event.	Insert "full height" Styrofoam spacers, or secure (glue or tie) spacers to rack (or battery cells) so that they cannot slide out. RESOLUTION #12	Repairs to insert proper spacers have been completed. Repairs implemented via Engineered Repairs (Ref. DOC ID# 6043969).	10/19/1999

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
CCSW Pump Cooler D02-5700-0030AH15 D02-5700-0030BH15 D02-5700-0030CH15 D02-5700-0030DH15 D03-5700-0030AH15 D03-5700-030BH157 D03-5700-0030CH15 D03-5700-0030DH15	Bolt type is not covered by the GIP - Cinch Anchor.	Capacity of Cinch Anchor is based on "Lead Expansion Anchor Load Capacity in Reactor Building at the Savannah River Site", Westinghouse Savannah River Company, RTR-2661, Aug. 15, 1989 (Ref. 23). The resulting anchorage capacity was shown to exceed the design basis seismic demand loads and Condition is resolved. RESOLUTION #10	Condition resolved in original IPEEE report. See preceding column for details.	12/1997
Switchgear D03-67331------S35	Spare breakers which are unanchored are potential interaction hazards.	Secure or re-locate spare breakers. RESOLUTION #5	Spare breakers have been relocated. Condition resolved in original IPEEE report	5/1996
Vertical Tank D00-3303-A----T05, D00-3303-B---T05	Tank is supported by ring foundation.	Evaluate ring foundation. RESOLUTION #9	The ring foundation has been qualified based on evaluation (Ref. Stevenson & Associates Calculation 98Q4006-C-002).	04/11/1998

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Panel D02-2252-0021	Base channel is secured to floor by 4 friction clips (one in each corner) Neighboring Neutral Grounding Cabinet is secured by friction clips.	Modify anchorage to an acceptable, positive anchorage design. RESOLUTION #10	The panel anchorage has been modified to a positive anchorage design via modification EC 7663 & WO 99135802.	1/17/2001
Pressure Indicators 2/3-4041-1A & 1B	Indicators are supported by piping and not attached to wall which could result in seismic interaction.	Anchor indicators to wall. RESOLUTION #6	Condition has been deleted from the Program. The pressure indicators are associated with Refuse Pumps. The Refuse Pumps are not being credited for Isolation Condenser makeup for the loss of dam failure scenario; therefore, the pressure indicators are not required for safe shutdown or included in the SPEL.	3/30/2000
Iso Cond Heat Exchangers D02-1302---H15, D03-1302---H15	Isolation condenser has no anchor bolts at outboard piers. Load taken by center pier.	Condition resolved (see S&L calculation 8900-15-EO-S) RESOLUTION # 14	No actions are required. The existing configuration has been verified to be adequate per S&L calculation 8900-15-EO-S. Condition resolved in original IPEEE report	10/27/1997

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Heat Exchanger D02-1503-A---- H15 D03-1503-A---- H15 D02-1503-B---- H15 D03-1503-B---- H15	Support steel requires evaluation.	Completed Modification of support steel (Mods: 1) E12-2-95-242, WO 96021982 2) E12-2-95-243, WO 96021981 3) E12-3-95-258, WO 96030678 4) E12-3-95-259, WO 96030680 RESOLUTION #9	Condition resolved in original IPEEE report. See preceding column & respective Work Orders.	1) 04/03/96 2) 04/03/96 3) 09/15/96 4) 09/12/96
Accumulator D02-4798-A---- A10	The accumulator has one bolt missing.	Install (repair) missing bolt. RESOLUTION #14	No actions are required. Upon further review, the accumulator is designed to be installed with one U-bolt. A subsequent walkdown verified that the U-bolt is in place (Ref. DOC ID# 6034842).	10/6/1999
Control Panel / DG Exciter D03-2252-0021-P06	Neighboring Neutral Grounding Cabinet is secured by friction clips.	Modify anchorage to an acceptable, positive anchorage design. RESOLUTION #10	The anchorage of the Neutral Grounding Cabinet has been modified to a positive anchorage design via EC 7664 & WO 99135800.	1/24/2002
D02-2202-0006-P06	Overhead light is only secured by one chain	Fix overhead light RESOLUTION #14	The light has been secured properly. Condition resolved in original IPEEE report.	5/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Cable Tray & Conduit Raceway Systems LAR001	An enveloping support in the Unit 2 Battery Room area was chosen for limited analytical review. The support is a 4-tier, rod hung trapeze supporting 4 trays. The support has two different types of ceiling anchorages: embedded strut and weldment to building steel. Loads exceed the allowables for the rod fatigue check.	This Condition is resolved by Condition analysis. A limit analysis per Section 8.4.8 of Reference 14 was performed and the hanger passes. Dresden rod fatigue data obtained from actual cyclic testing of the Dresden field threaded rods including the weldment anchorage plate from SEP Project 8050 (Ref. 22) was used to evaluate the rods. Based on the "Generic Rod Acceptability Curves", it was shown that the Dresden rods will sustain the SSE demand loads. RESOLUTION #15	Condition resolved in original IPEEE report per calculation 93C2806.4-C-002.	07/01/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Cable Tray & Conduit Raceway Systems LAR004	An enveloping support in the Auxiliary Electrical Equipment Room was chosen for limited analytical review. The support is a four tier rod hung trapeze supporting 4 trays. The support has two different types of ceiling anchorages: embedded strut and weldment to building steel. The loads for the embedded strut version exceed the allowables for the vertical capacity check. The loads for the welded attachment to building steel version exceed, by a small amount, the allowables for the rod fatigue check and are considered acceptable.	This Condition is resolved by Condition analysis. A limit analysis per Section 8.4.8 of Reference 14 was performed and the hanger passes. RESOLUTION #15	Condition resolved in original IPEEE report per calculation 93C2806.4-C-002	07/01/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Cable Tray & Conduit Raceway Systems LAR005	The main "spine of the cables connecting the Reactor building with the Control room. A large two-bay system carrying 12-44" trays in one bay (one side) and 4-44" trays on the other side in a floor-to-ceiling system. The bolting connections at the ceiling connection (anchorage) do not pass the vertical capacity check.	This Condition is resolved by Condition analysis. A limit analysis per Section 8.4.8 of Reference 14 was performed and the hanger passes. RESOLUTION #15	Condition resolved in original IPEEE report.	05/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Cable Tray & Conduit Raceway Systems LAR006	An enveloping support in the Unit 3 Turbine Building, El. 538, was chosen for limited analytical review. The support is a two tier, rod hung trapeze supporting 2 trays. The support anchorage is weldment to building steel. The support loads exceed the allowables for the rod fatigue check.	This Condition is resolved by Condition analysis. A redundancy and consequence analysis per Section 8.4.8 of Reference 14 was performed and the hanger passes. Dresden rod fatigue data obtained from actual cyclic testing of the Dresden field threaded rods including the weldment anchorage plate from SEP Project 8050 (Ref. 23) was used to evaluate the rods. Based on the "Generic Rod Acceptability Curves", it was shown that the Dresden rods will sustain the SSE demand loads. RESOLUTION #15	Condition resolved in original IPEEE report per calculation 93C2806.4-C-002.	07/01/1996

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Cable Tray & Conduit Raceway Systems LAR007	An enveloping support in the Unit 2 Turbine Building, El. 517, was chosen for limited analytical review. The support is a four tier, rod hung trapeze supporting 4 trays. The support anchorage is an embedded strut. The support loads exceed the allowables for the rod fatigue check.	Use Blume Report methodology to qualify support for rod fatigue. RESOLUTION #15	The worst case hangers have been reassessed for actual tray loadings, spans and configurations. Actual loading and spans were found to be smaller than those used in the original assessment. The assessment (S&A Calculation DRE99-0029) showed the worst case hangers were acceptable without modification.	05/05/1999

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Cable Tray & Conduit Raceway Systems LAR008	An enveloping support in the Reactor Building, El. 517, was chosen for limited analytical review. The support is a two bay, three tier/bay, rod hung trapeze supporting 1 tray/tier. The support has two different types of ceiling anchorages: embedded strut and weldment to building steel. The loads for the embedded strut version exceed the allowables for the vertical capacity check. The loads for the welded attachment to building steel version exceed the allowables for the rod fatigue check.	This Condition is resolved by Condition analysis. A limit analysis per Section 8.4.8 of Reference 14 was performed and the hanger passes. Dresden rod fatigue data obtained from actual cyclic testing of the Dresden field threaded rods including the weldment anchorage plate from SEP Project 8050 (Ref. 23) was used to evaluate the rods. Based on the "Generic Rod Acceptability Curves", it was shown that the Dresden rods will sustain the SSE demand loads.	Condition resolved in original IPEEE report.	05/1996
Cable Tray & Conduit Raceway Systems LAR009	The support is a 1/2" field threaded rod trapeze supporting 16" dia. bus duct, 24" to "top tier". The limiting seismic capacity based on rod fatigue is 98 lbs/ft. The actual weight (amount of cable inside the conduit) is currently unknown.	Determine actual weight per foot of the bus duct and compare to the 98 lbs/ft. capacity. RESOLUTION #15	Outliner Resolved. Actual weight per foot of the conduit duct is < 20 lbs/ft compared to 98 lbs/ft capacity (NDIT No. SEC-DR-98-046).	03/16/1998

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Unit 2 Turbine Building (including D/G Room), El. 517 RACE010	The hangers at the entrance to the turbine building, east of the truck bay, are rod hung on one side and bolted to a strut embedded in a block wall on the other side.	Determine if block wall capacity needs to be evaluated. If so determine the block wall capacity. RESOLUTION #15	The wall capacity is no longer required since the cable tray is not supported off the wall per Doc ID 6065125. The cable tray has been verified to be adequate per the resolution to LAR007.	11/15/1999
Diesel fuel Oil Storage Day Tank D00-5202-T05	Sight glass interaction issue.	Perform additional evaluation. RESOLUTION #6	Additional evaluation found the sight glass to be seismically adequate and there is no interaction issue (Ref. Rev. 1 of SEWS)	10/28/1996
Drywell/Torus Nitrogen Makeup Valves D02-1601-0057-V20 and D03-1601-0057-V20	3g analysis shows yoke overstress.	Evaluate actual demand accelerations. RESOLUTION#11	The valves have been evaluated for actual demand accelerations and found to be seismically adequate (Ref. DCC ID# 5996462).	8/4/1999
General	Nearby gas bottle interaction. Procedure DHP 0220-02.	Revise Procedure DHP 0220-02 to address to address gas bottle interaction concerns. RESOLUTION #1	Procedure DHP 0220-02 has been superseded by Procedure SA-AA-122.	7/30/2002
General	Inadequate seismic housekeeping procedure.	Develop a new procedure or revise housekeeping procedure DAP 03-11. RESOLUTION #5	Procedure DAP 03-20, "Restraint of Portable Equipment" has been revised to address seismic housekeeping concerns.	6/7/2000

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Hydrogen Seal Oil Panels D02-2257-7 and D03-2253-7	Anchorage is inadequate.	Provide positive anchorage.	The panels' anchorage has been modified to positive anchorage. Modification DCPs 9900205 (EC 7546 & WO 99102056) for Unit 2 and 9900204 (EC 7545 & WO 99102057) for Unit 3	Unit 201/12/2001 Unit 3 04/06/2000
Generator Core Monitors D02-5341-15 and D03-5341-15	Monitors not anchored or restrained have potential for hydrogen leakage.	Provide positive anchorage or restrain the monitors.	The monitors have been restrained by modification DCPs 9900205 (EC 7546 & WO 99102056) for Unit 2 and 9900204 (EC 7545 & WO 99102057) for Unit 3.	Unit 2 01/12/2001 Unit 3 04/06/2000
Dresden Dam failure concern	Seismically qualified path for Isolation Condenser makeup water is not available.	Provide a path from Unit 2 Diesel Generator Cooling Water system (seismically qualified) to Isolation Condenser makeup pumps.	Modification EC 341458 (WO 00558712) provided a tie-in from Unit 2 Diesel Generator Cooling Water to Isolation Condenser makeup pumps.	10/28/2003
Dresden Dam failure concern	Alternate path for makeup water to Units 2 and 3 CCSW heat exchangers does not exist.	Provide an alternate path to CCSW heat exchangers.	Modifications to provide tie-ins to CCSW heat exchangers have been completed via EC 341459 (WO 558719) for Unit 2 and EC 341461 (WO 558720) for Unit 3.	Unit 2 11/4/2003 Unit 3 11/4/2003

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
Iso Condenser Makeup Pump Diesel Oil Day Tanks 2/3-5215-A and 2/3-5215-B and batteries 2/3-4312-4A and 2/3-43123B	Isolation Condenser makeup pump diesel oil day tanks and batteries are not anchored.	Provide anchorage or seismic restraints for the diesel oil day tank batteries.	Seismic restraints for the Isolation Condenser makeup pump diesel oil day tanks and batteries been added via modification EC 341881 (WO 557293)	8/25/2003
Relays (Various)	Various vulnerabilities such as low ruggedness relays, demand exceeds capacity, no GERS, etc.	Perform additional evaluation of the relays for seismic adequacy or replace them with qualified relays.	Evaluation of various relay models such as General Electric HFA, HGA, IAV and IAC and other manufacturers' relays was completed. Calculations DRE99-0003 and DRE99-0020. Relays that did not pass evaluation were replaced with qualified relays via the following modifications.	Calc DRE99-0003 11/1/1999 Calc DRE99-0020 5/21/1999
			Cardox relays and timers Model H45 and H47 for EDGs. Modification EC 7535 (WO99127497).	9/27/2003
			Relays associated with Unit 2/3 EDG such as GE Model CFF and HFA, and EMD Model 8263337. Modification EC 8259 (WO 541917).	9/30/2003

Equipment ID	Description of Condition/ Vulnerability	IPEEE Report Proposed Resolution of Condition	Actual Resolution of Condition	Resolution Date
			Relays associated with Unit 2 EDG such as GE Model CFF and HFA, and EMD Model 8263337. Modification EC 8260 (WO 545850).	8/12/2003
			Relays associated with Unit 3 EDG such as GE Model CFF and HFA, and EMD Model 8263337. Modification EC 8261 (WO 545846).	9/8/2003
			Removed Square D pressure switch 2-2303-PS4 form HPCI system. Modification EC 8262 (WO 522055).	11/4/2003
			GE relays Model IAV and HFA in switchgear 29. Modification EC 8263 (WO 558722).	10/23/2003
			Unit 3 auto blowdown relays, GE Model HFA in panel 3-2203-32. Modification EC 8264 (WO 522226).	12/19/2003

Annex A

NRC Transmittal Update 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 27, 2012 (RS-12-167). Annex A, includes follow-on seismic walkdown results associated with NRC Commitment Nos. 2 and 4 listed in Enclosure 3 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 2 of the above Exelon letter.

Commitment No. 2, for the completion of the 15 remaining inspection (SWEL) items previously deferred due to inaccessibility listed in Table E-1, has been completed. All 15 inspection items were completed by the commitment date of Fall 2012 and the results are documented in this update.

Commitment No. 4, supplemental internal inspections of 27 Dresden Unit 3 electrical cabinets identified in Table E-2, remains open. This update documents the completion of 1 of the 27 inspection items which was originally scheduled for completion during D3R26 but became available for inspection in November 2012. Also, two (2) items in Table E-2 of the initial report were listed in error and are removed in this updated report. These items are Transformer 38 (D03-7338------T10) and the Turbine Pressure Switch (D03-2380------PSH), which are electrical equipment that do not fall into the same category as electrical cabinets. The remaining 24 internal inspection items, listed in Table AE-2 in this Annex A, are to be completed on or before the original commitment date of Winter 2022 (D3R27). A subsequent NRC transmittal will be issued to document results of these internal inspections and the completion of Commitment No. 4.

The initial NRC Transmittal report documented that all conditions identified during the seismic walkdowns, and listed in Table 5-2, were complete. No new conditions were identified during follow-on seismic walkdowns.

The initial NRC Transmittal report documented that 4 conditions identified during the Area Walk-Bys, and listed in Table 5-3, remained open. This update documents that all 4 conditions are now resolved with all follow-on actions complete, as listed in Table A5-3 of this Annex A. One (1) new condition was found during follow-on Area Walk-Bys. This condition was resolved with all actions complete, also listed in Table A5-3.

Annex A, includes updates to each section of the initial report 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".

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 performed at the Dresden Generating Station Unit 3 on all 15 items deferred due to inaccessibility along with 1 of the supplemental internal 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 the remaining 24 supplemental electrical cabinets to be completed on or before the original commitment date of Winter 2022 (D3R27), as listed in Table AE-2 of this Annex A.

As of December 31, 2012, all conditions identified during the Area Walk-Bys, as documented in IRs listed in Table 5-3, and Table A5-3 of this Annex A, have been corrected.

The updated completion status for the previous IRs, as well as the new IR identified during follow-on Area Walk-Bys, is shown in Table A5-3 in Section A5 of this Annex A.

A2 Seismic Licensing Basis

See Section 2 of initial report, 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. Information included in Appendix A, and Appendix AA in this Annex A, provide detail on each person's qualifications for their 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					
K. Hull	X					
T.K. Ram						X(1)
J. Griffith			X	X		
M. Wodarcyk			X	X		
Mohammad Hosain (Exelon) (4)						X(2)
W. Djordjevic						X(3)
D. Hamilton (Exelon)		X				
B. Weight (Exelon)				X	X	X(5)

Notes:
1. Peer Review Team member for SWEL review only.
2. Peer Review Team Leader for follow-on activities only.
3. Peer Review Team Leader for SWEL.
4. Personnel for follow-on activities only.
5. For follow-on activities only.

A3.2.1 Stevenson & Associates Personnel

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

A3.3 ADDITIONAL PERSONNEL

See Section 3.3, the following additional Exelon personnel participated in the follow-on activities:

Exelon Engineering staff member Mr. Mohammad Hosain is the Peer Review Team Leader for updated transmittal #1. Mr. Hosain is a Mechanical Engineer, Level 4 and has worked at Dresden as an Exelon employee since 1997. He has a Master of Science degree in Mechanical Engineering. He holds an EPRI SQUG certification. He has over 30 years experience in seismic and environmental qualification of plant equipment. He is the owner of the station Equipment Environmental Qualification Program and Subject Matter Expert on seismic and environmental qualification at Dresden Station. He is also a mentor/instructor for the certification on this subject. Mr. Hosain has been involved in all aspects of plant modification/ configuration change activities at Dresden. Activities he performs include: Equipment Dynamic Qualification Test/Analysis reviews and SQUG walkdown/seismic evaluations among other seismic related activities.

A4 Selection of SSCs

See Section 4 of initial report, 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 inform 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 in Table E-1 of the initial 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 item of 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 all 15 items identified in Table E-1 of the initial 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.

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 and none was performed during the follow-on walkdowns.

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 adverse conditions were identified during the follow-on walkdowns.

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 9 additional AWCs were completed for Dresden Unit 3 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

One (1) condition was identified during the Area Walk-Bys associated with the follow-on walkdowns and entered into the Corrective Action Program (CAP). The new condition was identified as Item ID Outage-8 (see Table A5-3 of this Annex A). Corrective actions were completed to address this condition identified during the follow-on Area Walk-Bys, and listed in Table A5-3 of this Annex A. No potentially adverse seismic conditions were identified that resulted in a seismic licensing basis evaluation. No seismically-induced flooding or spray interactions were identified during the Area Walk-Bys. No seismically-induced fire interactions were identified during the Area Walk-Bys.

Per Section 5.3.1 and Table 5-3, during the previous seismic walkdowns nine (9) conditions were identified and entered into the CAP. Corrective actions were completed to address five (5) of the nine (9) conditions. Subsequent to the issuance of the initial report, corrective actions were completed to address the remaining four (4) 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 of the initial report. The follow-on walkdowns completed 1 of the 27 supplemental internal electrical cabinet inspections listed in Table E-2 of the initial report. No conditions were identified. Also, two (2) items in Table E-2 of the initial report were listed in error and are removed in this updated report. These items are Transformer 38 (D03-7338------T10) and the Turbine Pressure Switch (D03-2380------PSH), which are electrical equipment that do not fall into the same category as electrical panels or cabinets. These components are not applicable for internal electrical cabinet inspection and, therefore, removed from the updated list in Table AE-2 of this Annex A. The remaining 24 items remain open items in Table AE-2 of this Annex A. These supplemental internal electrical cabinet inspections are to be completed on or before the original commitment date of Winter 2022 (D3R27).

The Seismic Walkdown Checklists (SWC) for the one (1) cabinet (ID D03-7338------S35) is documented in Appendix AC of this Annex A to indicate the results of the supplemental internal inspection.

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

Item ID	Description of Issue	Action Request ID (IR)	Actions Complete (Yes/No, See Notes 1 & 2)
AWC-U3-23	NRC identified an electrical conduit support outside the designated Walk-By boundary that has one of two wall mounted brackets not flush with the wall. The support is U-shaped. Three conduits are attached to this support. The location of the subject support is between L-50 and K-50 approximately 15' above floor elevation 545'-0". The subject support is also above valve 3-3917-B-501. The bracket that is not flush is not a concern because the other end of the support is judged capable of carrying the whole load as a hanger. The bracket that is not flush would be in compression so flush mount is not an issue. In addition, there are multiple additional properly installed conduit supports in the run that are immediately adjacent to the subject support. The system is adequately supported with no adverse effects based upon inspection and engineering judgment. Updated Actions: Shims were installed to provide solid bearing.	IR 1396558 WO 1568795	Yes
AWC-U3-30	Anchor plate of a floor mounted piping support near valve 3-1201-124B missing a nut on one of four anchors. The support is located at the U3 RWCU Demin Valve Gallery. However, the other three anchors have nuts securely torqued so the support is structurally adequate by engineering judgement. Also, this support is on a non-safety related system. Updated Actions: The missing nut was installed.	IR 1396565 WO 1567542	Yes

Item ID	Description of Issue	Action Request ID (IR)	Actions Complete (Yes/No, See Notes 1 & 2)
AWC-U3-24	NRC identified a 3" diameter pipe run with two knee-brace type wall mounted bracket supports missing one anchor bolt each. The 3" pipe has Spent Fuel Pool (SFP) drain valve 3-1901-8 in the line. Each support is intended to have two anchor bolts and only the bottom bolt in each support is installed. The location of the subject supports is on the north wall above elevation 570 on the high dose side of the SFP fence in a High Radiation Locked boundary. The 3" pipe is 3-1913-3-L per P&ID drawing M-362. According to the P&ID drawing, the subject pipe drains the SFP on the dry side of the gate and is currently isolated. This was confirmed by the shift manager and unit supervisor. Therefore the deficiency does not affect the safety related function of the equipment. Updated Actions: Per EC Eval 391482, the two knee brace type pipe supports were not needed and they were removed.	IR 1396568 WO 1567540	Yes

Item ID	Description of Issue	Action Request ID (IR)	Actions Complete (Yes/No, See Notes 1 & 2)
AWC-U3-24	NRC identified a 2.5" diameter conduit run with a ceiling mounted bracket support that is missing one anchor bolt. The location of the subject support is in the ceiling above elevation 570' on the high dose side of the SFP fence in a High Radiation Locked boundary. The conduit and subject support are above valve 3-1601-23. The conduit run is vertical from an existing junction box that is supported from the floor by a stanchion underneath. The majority of this vertical conduit run is carried by the floor support. The ceiling support with a missing anchor bolt is immediately after a 90 degree bend where it turns horizontal below the ceiling. A second ceiling support is located approximately 4' from the support with the missing anchor bolt. This second ceiling support is properly installed with both anchors intact. According to Table 1.2 in specification K-4081 the maximum acceptable horizontal span between supports is 9'-0". The vertical run is well supported and acts as an end support for the beginning of the horizontal run. The properly installed ceiling hanger may be considered the next support on the horizontal run without regard to the improperly installed support. Since the horizontal span between the vertical conduit run and properly installed support is less than 9'-0", the missing anchor deficiency does not affect the safety related function of the equipment. Updated Actions: The missing anchor bolt was installed.	IR 1396571 WO 1567539	Yes

Item ID	Description of Issue	Action Request ID (IR)	Actions Complete (Yes/No, See Notes 1 & 2)
Outage-8	During Fukushima Seismic Walkdowns 2 of 4 chains on a single shop light fixture in the ceiling of the Unit 3 Battery Charger Room had open S-hook connections. The subject light fixture is located against the south wall behind Bus 3B-1, 125 VDC. There is one of two open S-hooks at each end. The remaining chains with closed S-hooks, if the open S-hooks were to come loose, are sufficient to prevent the light fixtures from swinging into adjacent equipment and/or falling down by engineering judgment. In addition, the light fixtures in this room are hardwired into the ceiling and would not fall even if all four of the support chains were to come loose. Updated Actions: The open S-hooks were closed.	IR 1439564 WR 00417426	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 Corrective Action Program.

A6 Licensing Basis Evaluations

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

A7 IPEEE Vulnerabilities Resolution Report

See Section 7 of the initial report, no changes to the IPEEE vulnerabilities resolution was made for this Annex A.

A8 Peer Review

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

- No review of the selection of SSCs included on the SWEL was required as the SWEL has not been revised.
- Review of a sample of the checklists prepared for the Seismic Walkdowns and Area Walk-Bys
- No review of licensing basis evaluations was required as no new licensing basis evaluation were performed.
- 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 of initial report, the following new references were added for this Annex A:

1. Exelon Generation Company, LLC 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 27, 2012 (RS-12-167).

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

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:

Exelon Generation

MOHAMMAD A. HOSAIN

EDUCATION

MSME, Polytechnic Institute of New York, Brooklyn, New York
BSME, Bangalore University, Bangalore, India

QUALIFICATIONS

- Over 30 years of engineering and engineering management experience in the nuclear power industry, mostly in the seismic and environmental qualification of equipment. This experience includes 18 years of consulting engineering and 15 years of utility in Design and Plant Engineering areas.
- Manager of Dresden Station Environmental Qualification (EQ) program. Dresden's Subject Matter Expert and mentor for Seismic and Environmental Qualification of equipment.
- Site Seismic Qualification Utility Group (SQUG) coordinator and qualified SQUG seismic engineer.
- Modification design engineer and qualified 10 CFR50.59 screener and evaluator.
- Manager of Air Systems in Plant Engineering

MAJOR ACCOMPLISHMENTS

- Overhauled Dresden Station EQ program for Extended Power Uprate (EPU) and License Renewal Projects.
- Improved EQ program and achieved and maintained the program health color of green (excellent).
- Managed resolution of more than 100 Dresden Station SQUG outliers and successfully completed the NRC required program.
- Replaced 177 scram solenoid pilot valves on each Unit and received the Station recognition award.
- Improved the reliability of Air systems by replacing Instrument and Service Air compressors and modifying Nitrogen Tanks' cryogenic piping.
- Worked on numerous system modifications including post TMI accident NRC required modifications. Divisional in-charge of major modifications of HPCS and RCIC piping and 125 VDC and 250 VDC batteries and battery chargers replacement at LaSalle County Station.
- Led reevaluation program for seismic qualification of MOV's at LaSalle County Station due to MOV modifications resulting from NRC GL 89-10 evaluations.

Mohammad A. Hosain

PROFESSIONAL EXPERIENCE

1997-present **Senior Engineer and Senior Staff Engineer**
Exelon Corporation
Dresden Nuclear Power Station
Morris, Illinois

Mr. Hosain is responsible for the management of EQ Program and seismic qualification of equipment at Dresden Station. He is the site subject matter expert and mentor for the seismic and environmental qualification of equipment. He is also the site Seismic Qualification Utility Group (SQUG) coordinator. As the SQUG coordinator, Mr. Hosain has demonstrated leadership in resolving more than 100 SQUG outliers and taking the SQUG program to a finish. As the SQUG coordinator, his responsibilities included obtaining funding, being modification cognizant engineer, Design Engineering liaison to Work Control and Planning, and interface with the NRC in responding to the NRC Requests for Additional Information (RAI). His improvements to the EQ program resulted in achieving the program health color of green (excellent) for the first time ever.

As the EQ program manager, Mr. Hosain has been responsible for successful completion of updating all EQ binders for Extended Power Uprate (EPU) and License Renewal Projects. He has contributed to Dresden Station's success in many ways – from resolving emergent issues to cost saving. He has extended qualified lives of various equipment using innovative ways. He has successfully deferred replacement of several equipment/components by implementing monitoring and surveillance. He has participated in many NRC inspections and successfully resolved NRC's concerns regarding seismic and environmental qualification of equipment, and defended station's design bases. He has received many recognition awards from Station management.

Mr. Hosain has also functioned as the system manager for Instrument Air, Service Air and Nitrogen/Pumpback systems in Plant Engineering for two years. There he was a key player in obtaining funding for and replacing Instrument Air and Service Air compressors, improving the system/equipment reliability. He has streamlined the process of instrument air quality monitoring by developing and implementing new procedures.

1996-1997 **Project Engineer**
Sargent & Lundy Engineers
Chicago, Illinois

Mr. Hosain was assigned to Quad Cities Station and Dresden Station site Design Engineering. Worked on design modifications and supported reduction of Engineering Requests backlog.

1993-1996 **Engineering Consultant**
Wheaton, Illinois

Mohammad A. Hosain

Mr. Hosain Provided engineering consultation services to clients both in the nuclear power industry and commercial engineering in different areas such as design, equipment qualification /optimization and surveillance and maintenance requirements for equipment.

1979-1993 **Sargent & Lundy Engineers**
Chicago, Illinois

1987-1993, Project Engineer

As a Project Engineer in Component Qualification Division and in Component and Materials Engineering Division, Mr. Hosain managed a group of six to eight engineers and senior engineers assigned to project team in the areas of seismic and environmental qualification of safety-related equipment, parts and component classification and Q-list development. He was responsible for divisional activities involving modifications on the project. Responsibilities included determining job scope; writing proposals to clients; monitoring and controlling budget and man-hours; ensuring completion of modification work on or before schedule; inter-divisional interface and interface with client and station personnel. During this period, Mr. Hosain was assigned to LaSalle County Station project, where he resolved numerous seismic and environmental qualification issues including surveillance and maintenance concerns, modification issues and parts procurement, classification and dedication concerns and handled all the station engineering work requests involving any divisional activities.

1983-1987, Senior Component Engineer

As a Senior Engineer in Component Qualification Division, Mr. Hosain managed a core of engineers performing seismic and environmental qualification of safety-related equipment. Responsibilities included training new engineers on the project team in the preparation and review of equipment and design procurement specifications, performance of bid evaluations, calculations of loads required for design of equipment foundations and building floor slabs, preparation and review of equipment dynamic and environmental qualification reports, preparation and review of EQ binders, preparation and review of ASME certified design reports

1979-1983, Engineering Analyst

Engineering Analyst in Engineering Mechanics Division and Component Qualification Division. Mr. Hosain performed seismic qualification analysis of safety-related equipment using finite element modal analysis and conventional stress analysis techniques. Gained experience in dynamic testing techniques used for seismic qualification of equipment and techniques involved in environmental qualification of Class 1E equipment. Gained familiarity with several codes and standards, including ASME B&PV Code Sections, II, III and XI, ASTM Standards, AISC Manual, AWS Standards, IEEE Standards such as 323, 344, 382 etc., and various Regulatory Guides.

SQUG

Certificate of Achievement

This is to Certify that

Mohammad A. Hosain

has Completed the SQUG Walkdown Screening and Seismic Evaluation Training Course

April 20-24, 1998
Date of Course

Paul C. Smith
SQUG Representative

Training Course Administrator

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, comments of each Seismic Walkdown Checklist. All items in Table AC-1 were deferred items listed in Table E-1 of the initial 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 the initial report, and were accessible without safety and operational hazard.

Table AC-1. Summary of Seismic Walkdown Checklists

ID	DESCRIPTION	Anchorage Configuration Confirmed?	Area Walk-By	Page
D03-0302-0156AV05	CRD/ East Bank Scram Discharge Volume Drain Valve	N/A	Outage-1	AC-23
D03-0302-0157AV05	CRD/ East Bank Scram Discharge Volume Drain Valve	N/A	Outage-1	AC-26
D03-1601-0021-V05	PRESSURE SUPPRESSION/ Drywell Purge Line Valve	N/A	Outage-1	AC-32
D03-1601-0022-V05	PRESSURE SUPPRESSION/ Drywell/Torus Purge Line Valve	N/A	Outage-1	AC-35
D03-2001-0005-V05	RB EQUIPMENT DRAIN/ Drywell Equipment Drain Line Valve	N/A	Outage-1	AC-38
D03-2001-0105-V05	RB EQUIPMENT DRAIN/ Drywell Floor Drain Line Valve	N/A	Outage-2	AC-41
D03-0202-0005AV20	REACTOR RECIRCULATION/ Recirc Pump A Discharge Valve	N/A	Outage-3	AC-3
D03-0203-0001AV05	MAIN STEAM/ Isolation Valve	N/A	Outage-4	AC-6
D03-0203-0003AV26	ADS/ Target Rock Valve	N/A	Outage-5	AC-9
D03-0203-0003BV26	ADS/ Electromatic Relief Valve	N/A	Outage-5	AC-12
D03-0203-0004AV26	ADS/ Reactor Overpressure Relief Valve	N/A	Outage-5	AC-15
D03-1301-0004-V20	ISOLATION CONDENSER/ Steam Return Line Isolation Valve	N/A	Outage-6	AC-29
D03-2301-0008-V20	HPCI/ HPCI Pump Injection Line Valve	N/A	Outage-7	AC-44
D03-83250-A01-M05	250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)	Yes	Outage-8	AC-47
D03-0302-0082B-LT	CRD/ East Bank SDV Tank Level Transmitter	Yes	AWC-U3-12	AC-17

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

ID	DESCRIPTION	Anchorage Configuration Confirmed?	Area Walk-By	Page
D03-7338------S35	480V AC/ Switchgear 38	Yes	AWC-U3-20	C-440 & AC-50

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0202-0005AV20

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

Equipment Description: REACTOR RECIRCULATION/ Recirc Pump A Discharge Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 515.50 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0202-0005AV20

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

Equipment Description: REACTOR RECIRCULATION/ Recirc Pump A Discharge Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

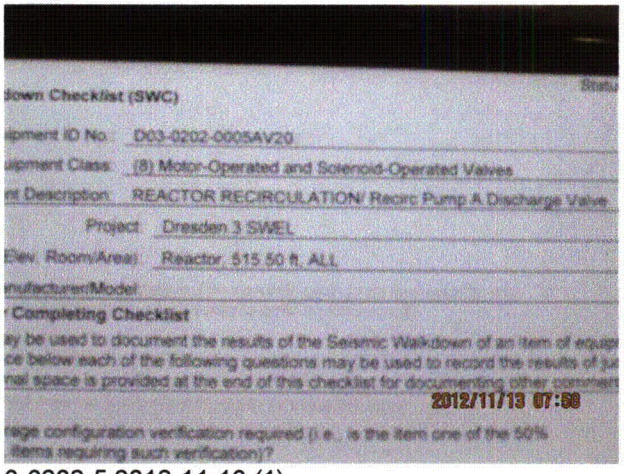
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0202-0005AV20

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

Equipment Description: REACTOR RECIRCULATION/ Recirc Pump A Discharge Valve

Photos



3-0202-5 2012-11-13 (1)

3-0202-5 2012-11-13 (2)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0001AV05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM/ Isolation Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 515.50 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0001AV05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM/ Isolation Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

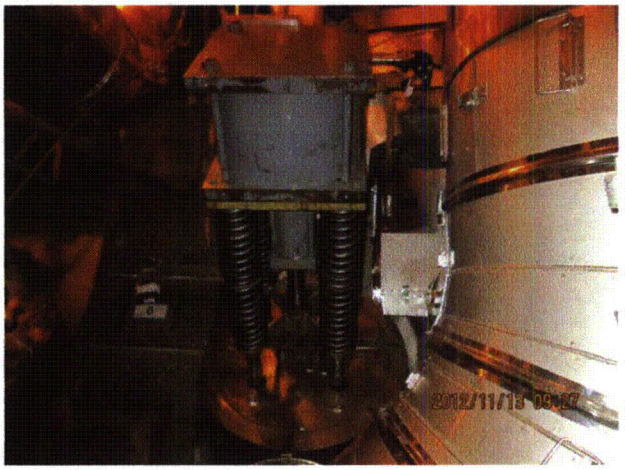
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0001AV05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: MAIN STEAM/ Isolation Valve

Photos



3-0203-1 2012-11-13

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0003AV26

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ADS/ Target Rock Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 537.00 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0003AV26

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ADS/ Target Rock Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

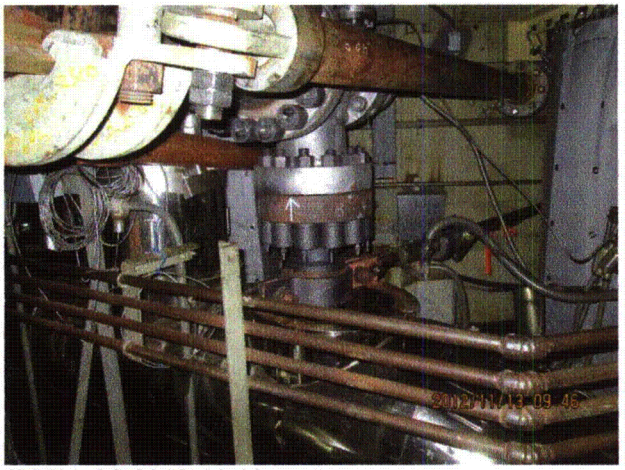
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0003AV26

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ADS/ Target Rock Valve

Photos



3-0203-3A 2012-11-13

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0003BV26

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

Equipment Description: ADS/ Electromatic Relief Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 537.00 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0003BV26

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

Equipment Description: ADS/ Electromatic Relief Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

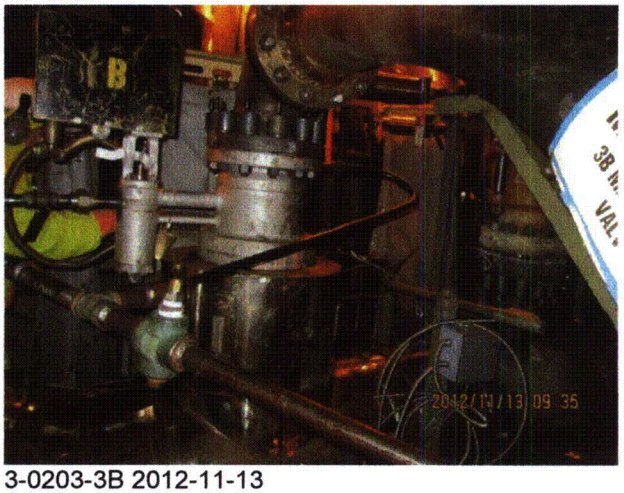
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0003BV26

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

Equipment Description: ADS/ Electromatic Relief Valve

Photos



3-0203-3B 2012-11-13

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0004AV26

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ADS/ Reactor Overpressure Relief Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 537.00 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0203-0004AV26

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: ADS/ Reactor Overpressure Relief Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0082B-LT

Equipment Class: (18) Instruments on Racks

Equipment Description: CRD/ East Bank SDV Tank Level Transmitter

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 517.50 ft, ALL

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? *Minor shrinkage cracks in wall judged to be acceptable.*	Yes
5.	Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)	Not Applicable
6.	Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Yes

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0082B-LT

Equipment Class: (18) Instruments on Racks

Equipment Description: CRD/ East Bank SDV Tank Level Transmitter

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

Seismic Walkdown Teams:
J. Griffith & M. Wodarcyk - 8/1/2012
P. Gazda & M. Wodarcyk - 11/13/2012

See U3 East HCU Bank area walk-by for further notes.

Per Engineering, switch has been replaced with a transmitter.

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

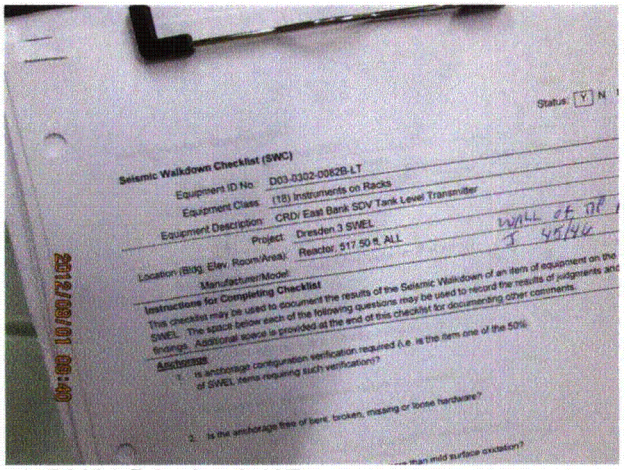
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0082B-LT

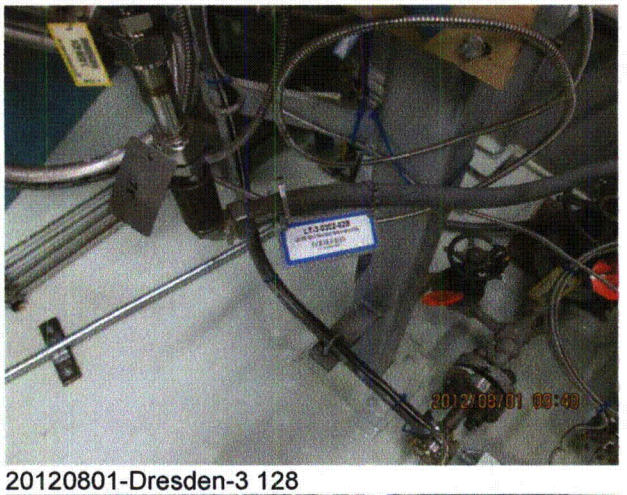
Equipment Class: (18) Instruments on Racks

Equipment Description: CRD/ East Bank SDV Tank Level Transmitter

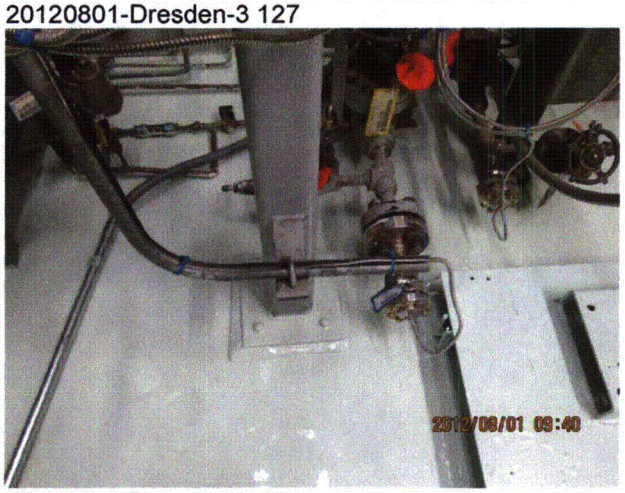
Photos



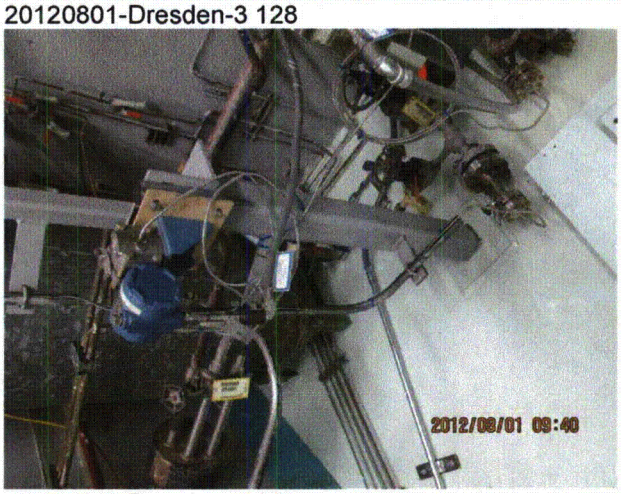
20120801-Dresden-3 127



20120801-Dresden-3 128



20120801-Dresden-3 129



20120801-Dresden-3 130

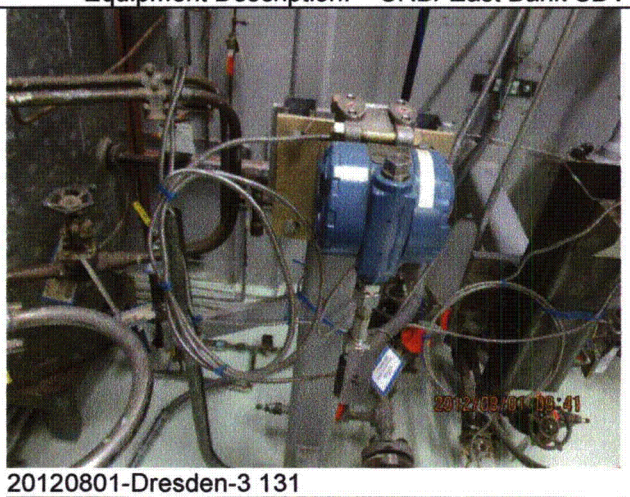
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

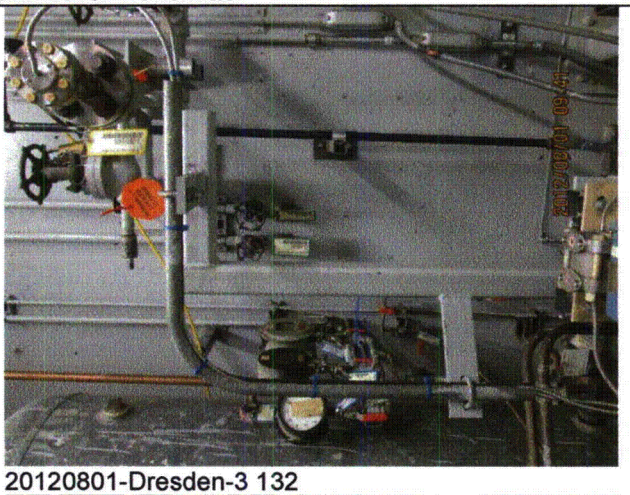
Equipment ID No.: D03-0302-0082B-LT

Equipment Class: (18) Instruments on Racks

Equipment Description: CRD/ East Bank SDV Tank Level Transmitter



20120801-Dresden-3 131



20120801-Dresden-3 132

20120801-Dresden-3 133

20120801-Dresden-3 134

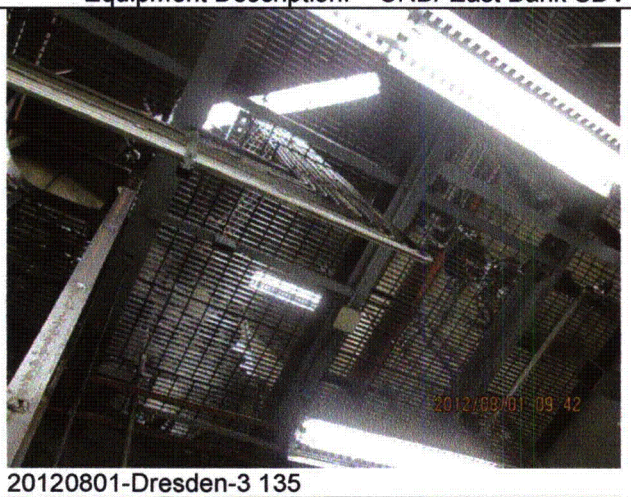
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0082B-LT

Equipment Class: (18) Instruments on Racks

Equipment Description: CRD/ East Bank SDV Tank Level Transmitter



20120801-Dresden-3 135

20120801-Dresden-3 136

20120801-Dresden-3 137

20120801-Dresden-3 138

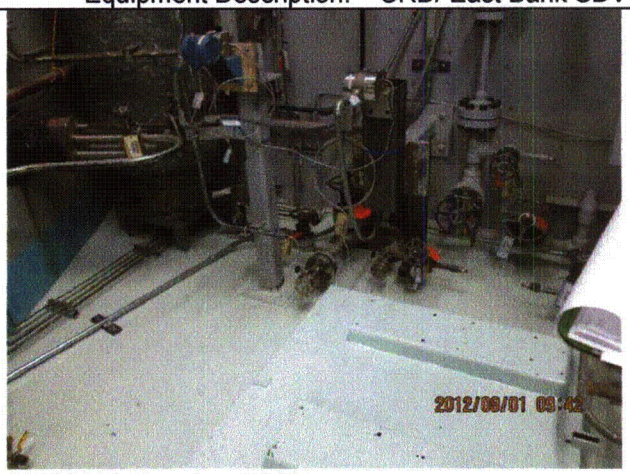
Status: [Y] N U

Seismic Walkdown Checklist (SWC)

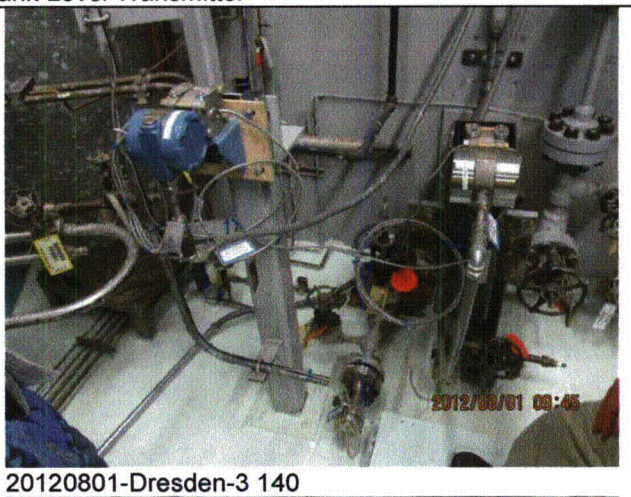
Equipment ID No.: D03-0302-0082B-LT

Equipment Class: (18) Instruments on Racks

Equipment Description: CRD/ East Bank SDV Tank Level Transmitter



20120801-Dresden-3 139



20120801-Dresden-3 140

3-0302-82B LT 2012-11-13 (1)

3-0302-82B LT 2012-11-13 (2)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0156AV05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CRD/ East Bank Scram Discharge Volume Drain Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 476.50 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0156AV05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CRD/ East Bank Scram Discharge Volume Drain Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

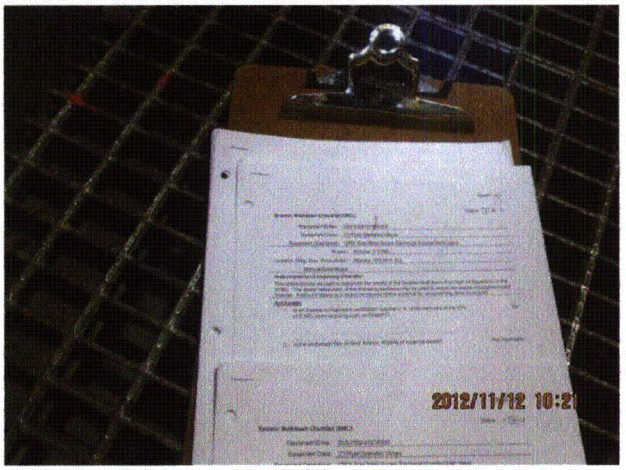
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0156AV05

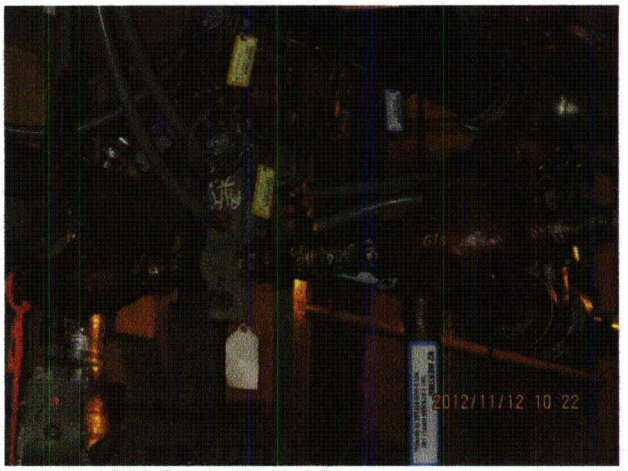
Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CRD/ East Bank Scram Discharge Volume Drain Valve

Photos



3-0302-156A 2012-11-12 (0)



3-0302-156A 2012-11-12 (1)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0157AV05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CRD/ East Bank Scram Discharge Volume Drain Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 476.50 ft, ALL

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.: D03-0302-0157AV05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CRD/ East Bank Scram Discharge Volume Drain Valve

Interaction Effects

7.	Are soft targets free from impact by nearby equipment or structures? *Pipe and various tubes in proximity with valve body. Valve is robust; judged to be acceptable.*	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

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

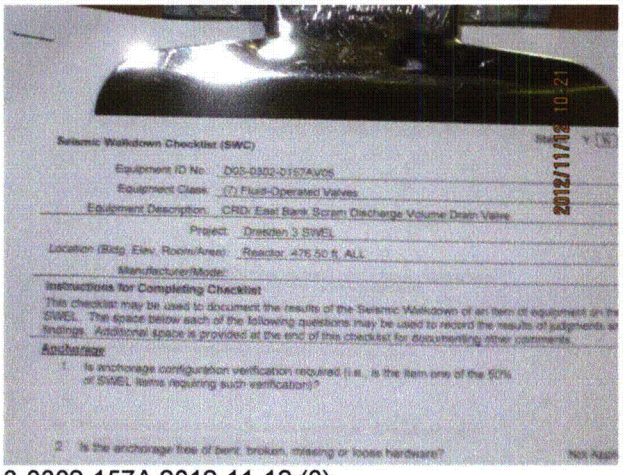
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-0302-0157AV05

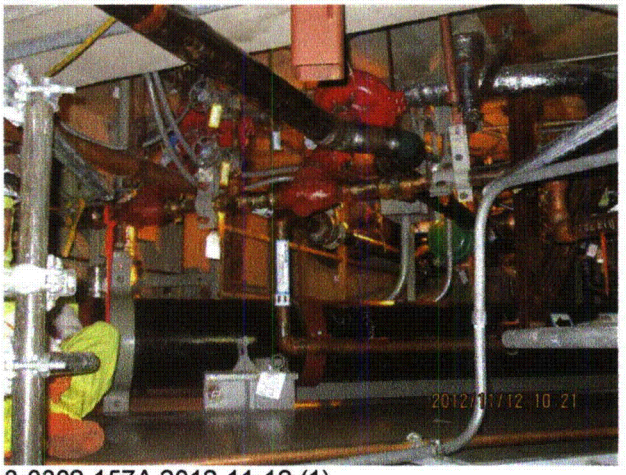
Equipment Class: (7) Fluid-Operated Valves

Equipment Description: CRD/ East Bank Scram Discharge Volume Drain Valve

Photos



3-0302-157A 2012-11-12 (0)



3-0302-157A 2012-11-12 (1)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-1301-0004-V20

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

Equipment Description: ISOLATION CONDENSER/ Steam Return Line Isolation Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 537.00 ft, ALL

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.: D03-1301-0004-V20

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

Equipment Description: ISOLATION CONDENSER/ Steam Return Line Isolation Valve

Interaction Effects

7.	Are soft targets free from impact by nearby equipment or structures? *Lead shielding in vicinity is adequately restrained.*	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

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-1301-0004-V20

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

Equipment Description: ISOLATION CONDENSER/ Steam Return Line Isolation Valve

Photos

3-1301-4 2012-11-13 (1)

3-1301-4 2012-11-13 (2)

3-1301-4 2012-11-13 (3)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-1601-0021-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PRESSURE SUPPRESSION/ Drywell Purge Line Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 476.50 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-1601-0021-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PRESSURE SUPPRESSION/ Drywell Purge Line Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: P. Gazda — Philip Gazda — Date: 11/19/2012

M. Wodarcyk — Michael Wodarcyk — 11/19/2012

Status: [Y] N U

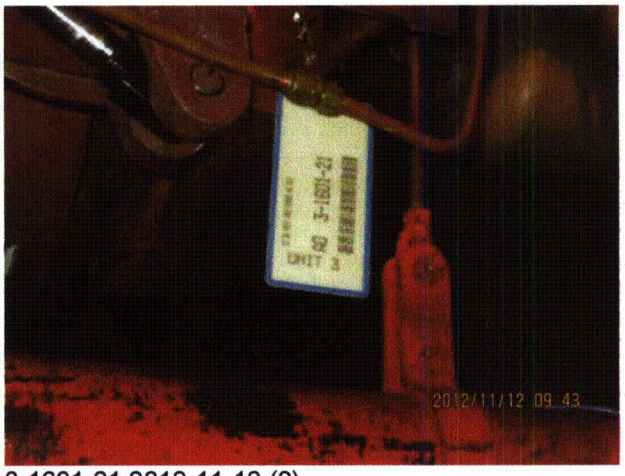
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-1601-0021-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PRESSURE SUPPRESSION/ Drywell Purge Line Valve

Photos



3-1601-21 2012-11-12 (0)

3-1601-21 2012-11-12 (1)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-1601-0022-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PRESSURE SUPPRESSION/ Drywell/Torus Purge Line Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 476.50 ft, ALL

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.: D03-1601-0022-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PRESSURE SUPPRESSION/ Drywell/Torus Purge Line 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

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

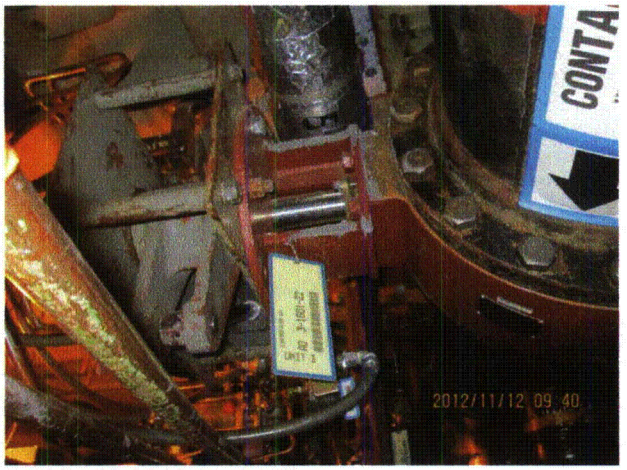
Equipment ID No.: D03-1601-0022-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: PRESSURE SUPPRESSION/ Drywell/Torus Purge Line Valve

Photos

3-1601-22 2012-11-12 (0)



3-1601-22 2012-11-12 (1)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-2001-0005-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RB EQUIPMENT DRAIN/ Drywell Equipment Drain Line Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 476.50 ft, ALL

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

Interaction Effects

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

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-2001-0005-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RB EQUIPMENT DRAIN/ Drywell Equipment Drain Line Valve

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

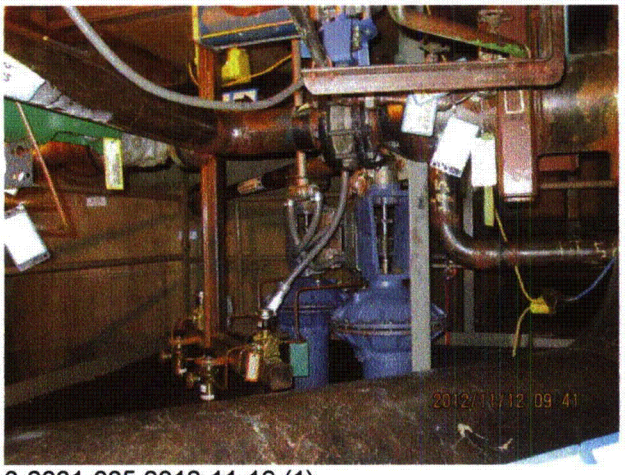
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-2001-0005-V05

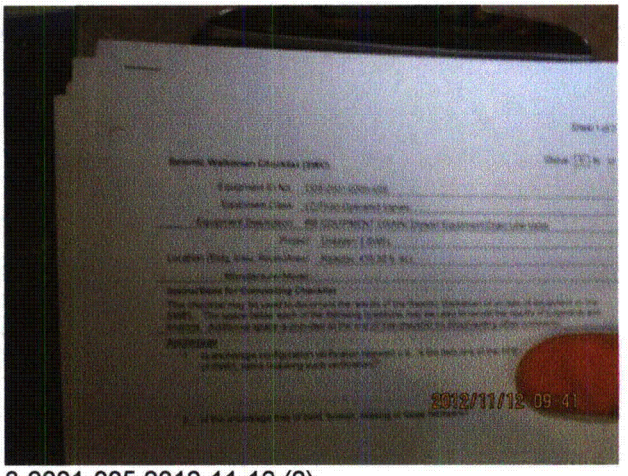
Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RB EQUIPMENT DRAIN/ Drywell Equipment Drain Line Valve

Photos



3-2001-005 2012-11-12 (1)



3-2001-005 2012-11-12 (2)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-2001-0105-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RB EQUIPMENT DRAIN/ Drywell Floor Drain Line Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 476.50 ft, ALL

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.: D03-2001-0105-V05

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RB EQUIPMENT DRAIN/ Drywell Floor Drain Line 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

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

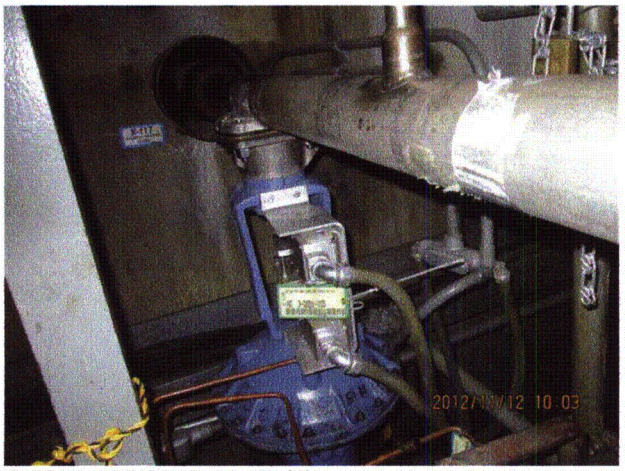
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-2001-0105-V05

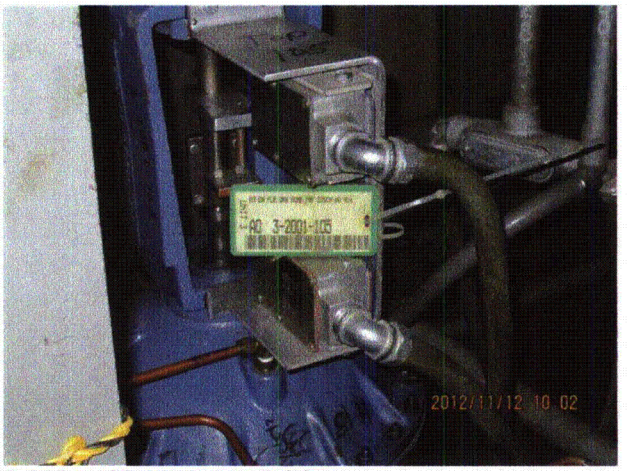
Equipment Class: (7) Fluid-Operated Valves

Equipment Description: RB EQUIPMENT DRAIN/ Drywell Floor Drain Line Valve

Photos



3-2001-105 2012-11-12 (1)



3-2001-105 2012-11-12 (2)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-2301-0008-V20

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

Equipment Description: HPCI/ HPCI Pump Injection Line Valve

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Turbine, 517.50 ft, ALL

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.: D03-2301-0008-V20

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

Equipment Description: HPCI/ HPCI Pump Injection Line Valve

Interaction Effects

7.	Are soft targets free from impact by nearby equipment or structures? *Valve yoke is near floor grating. Valve is robust. Pipe is well-supported and seismically-designed. Judged to be acceptable.*	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

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

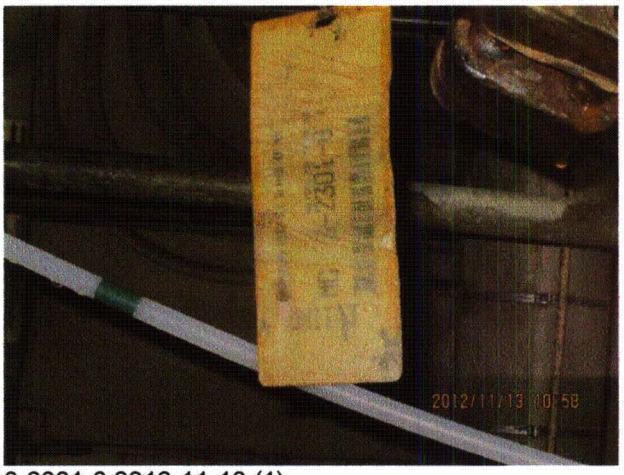
Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-2301-0008-V20

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

Equipment Description: HPCI/ HPCI Pump Injection Line Valve

Photos



3-2301-8 2012-11-13 (1)

3-2301-8 2012-11-13 (2)

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-83250-A01-M05

Equipment Class: (14) Distribution Panels

Equipment Description: 250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Turbine, 549.00 ft, ALL

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.: D03-83250-A01-M05

Equipment Class: (14) Distribution Panels

Equipment Description: 250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)

Interaction Effects

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

Other Adverse Conditions

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

Comments

Seismic Walkdown Teams:
J. Griffith & M. Wodarcyk - 7/30/2012
P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Status: [Y] N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: D03-83250-A01-M05

Equipment Class: (14) Distribution Panels

Equipment Description: 250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)

Photos

3-8350-3 2012-11-13 (1)

3-8350-3 2012-11-13 (2)

3-8350-3 2012-11-13 (3)

Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL INSPECTION

Equipment ID No.: D03-7338------S35

Equipment Class: (02) Low Voltage Switchgear

Equipment Description: 480V AC/ Switchgear 38

Project: Dresden 3 SWEL

Location (Bldg, Elev, Room/Area): Reactor, 570.00 ft, ALL

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 INSPECTION

Equipment ID No.: D03-7338------S35

Equipment Class: (02) Low Voltage Switchgear

Equipment Description: 480V AC/ Switchgear 38

Other Adverse Conditions

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)* [Y] N U
    - *b. Are adjacent cabinets secured together?* [Y] N U
    - *c. No other adverse seismic conditions?* [Y] N U

Comments

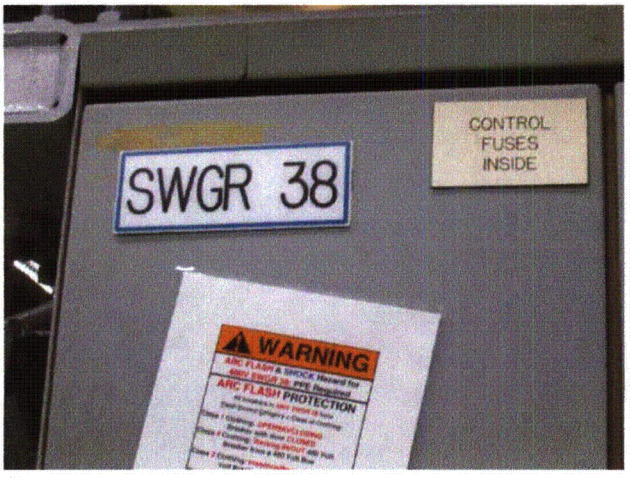
Seismic Walkdown Team: P. Gazda & M. Wodarcyk – 11/14/2012

Cabinet energized. Opened Section 385 rear door only. Section bolted to adjacent cabinets.

Evaluated by: P. Gazda Date: 11/26/2012

M. Wodarcyk 11/26/2012

Photos



1

2

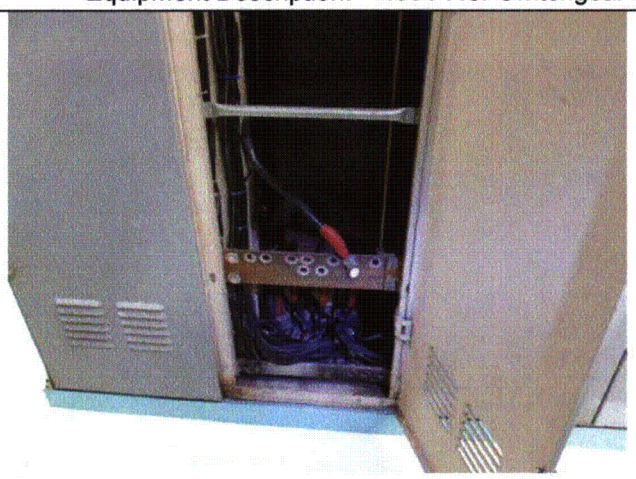
Status: [Y] N U

Seismic Walkdown Checklist (SWC) SUPPLEMENTAL INSPECTION

Equipment ID No.: D03-7338------S35

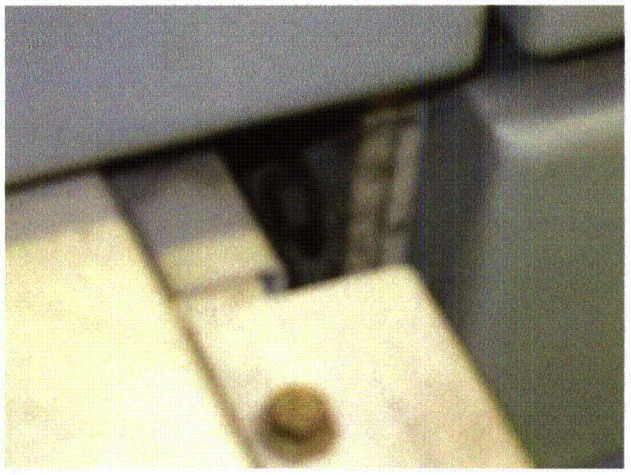
Equipment Class: (02) Low Voltage Switchgear

Equipment Description: 480V AC/ Switchgear 38



3

4



5

6

Appendix AD
Area Walk-By Checklists (AWCs)

Table AD-1 provides the building, elevation, and location of each area as well as a list of walkdown items associated with each area, and page numbers of each Area Walk-By Checklist.

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

Area	Area Description	Components Within Area	Page
Outage-1	Torus Catwalk Bay 4	D03-0302-0156AV05	AD-9
		D03-0302-0157AV05	
		D03-1601-0021-V05	
		D03-1601-0022-V05	
		D03-2001-0005-V05	
Outage-2	Torus Catwalk Bay 14	D03-2001-0105-V05	AD-11
Outage-3	Drywell Basement - 120°	D03-0202-0005AV20	AD-13
Outage-4	Drywell Ground Floor - 0°	D03-0203-0001AV05	AD-15
Outage-5	Drywell 2nd Floor - 45°-90°	D03-0203-0003AV26	AD-17
		D03-0203-0003BV26	
		D03-0203-0004AV26	
Outage-6	Drywell 2nd Floor - 190°	D03-1301-0004-V20	AD-19
Outage-7	MSIV Room / X-Area	D03-2301-0008-V20	AD-21
Outage-8	Battery Charger Room	D03-83250-A01-M05	AD-23
AWC-U3-12	East HCU Bank	D03-0302-0082B-LT	AD-3

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-12

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
   Abandoned light fixture support is skewed. Support judged acceptable because it is trapped between pipes and cannot fall, and because it is anchored to the wall.

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
   Piping is welded and/or well-supported and judged to be acceptable.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? — Yes
   Gas bottles chained adequately.

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
   Overhead hoist chain near MCC:

   1) Weight of chain piled on floor prevents sway.

   2) Hook clipped to fence near torus ladder prevents sway.

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-12

Hoist chain is judged acceptable.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Yes

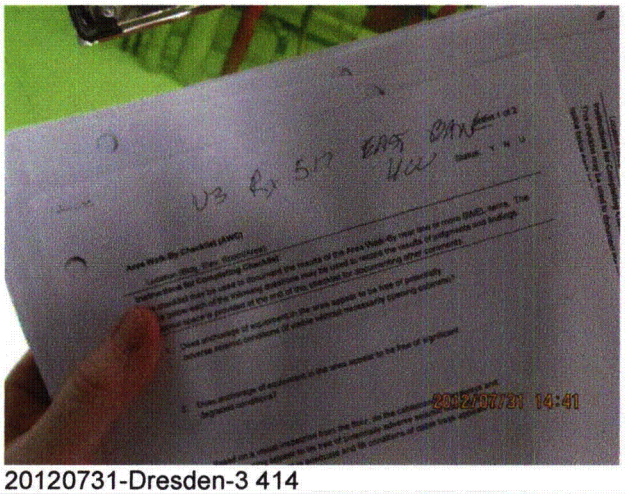
Comments

Seismic Walkdown Teams:
J. Griffith & M. Wodarcyk - 7/31/2012
P. Gazda & M. Wodarcyk - 11/13/2012

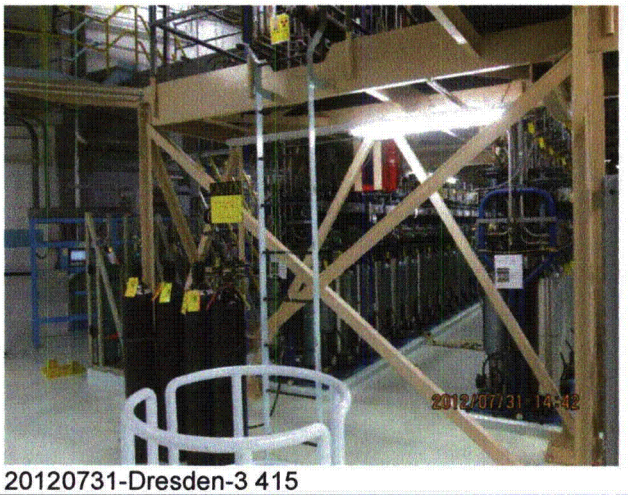
Evaluated by: P. Gazda J. Griffith Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos



20120731-Dresden-3 414



20120731-Dresden-3 415

Status: [Y] N U

Area Walk-By Checklist (AWC)

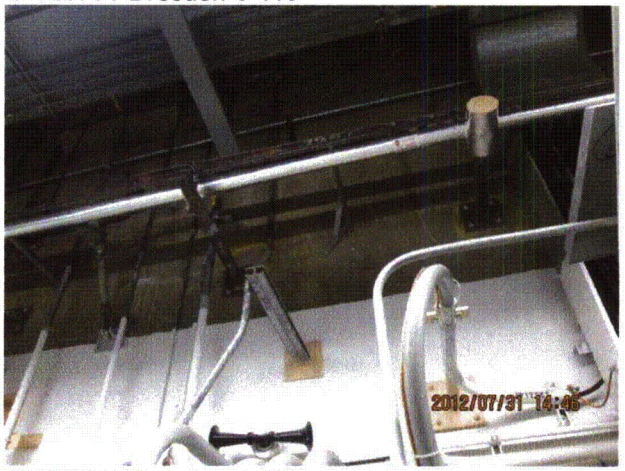
Location (Bldg, Elev, Room/Area): AWC-U3-12

20120731-Dresden-3 416

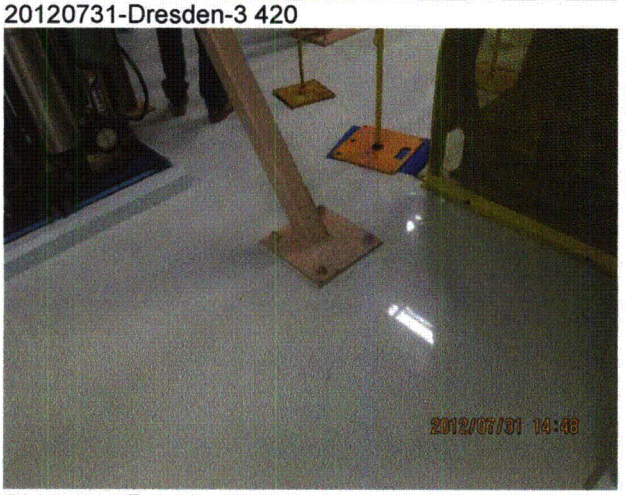
20120731-Dresden-3 418

20120731-Dresden-3 419

20120731-Dresden-3 420



20120731-Dresden-3 421



20120731-Dresden-3 425

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-12

20120731-Dresden-3 426

20120731-Dresden-3 427

20120731-Dresden-3 428

20120731-Dresden-3 429

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-12

20120731-Dresden-3 430

20120731-Dresden-3 431

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-12

20120731-Dresden-3 432

20120731-Dresden-3 433

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 01

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)? *Various pipes, tubes, and conduits in close proximity with one another. All are flexible and judged to be acceptable.*	Yes
5.	Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? *Fire piping in area is welded.*	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): AWC-U3-Outage 01

8.	Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 02

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)? *Various pipes, tubes, and conduits in close proximity with one another. All are flexible and judged to be acceptable.*	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): AWC-U3-Outage 02

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/12/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 03

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): AWC-U3-Outage 03

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 04

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): AWC-U3-Outage 04

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 05

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): AWC-U3-Outage 05

8.	Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 06

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)? *Lead shielding in vicinity is adequately restrained.*	Yes

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 06

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 07

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): AWC-U3-Outage 07

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Status: [Y] N U

Area Walk-By Checklist (AWC)

Location (Bldg, Elev, Room/Area): AWC-U3-Outage 08

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)? *Overhead light fixture behind Bus 3B-1, 125VDC has two open S-hooks (one on each end). The 2 remaining chains are adequate to prevent the fixture from impacting the panel. In addition, the hard-wired electrical cable to the light fixture would also prevent the fixture from impacting the panel. Judged to be acceptable. See IR 1439564.*	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): AWC-U3-Outage 08

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Yes

Comments

Seismic Walkdown Team: P. Gazda & M. Wodarcyk - 11/13/2012

Evaluated by: Philip Gazda Date: 11/19/2012

Michael Wodarcyk 11/19/2012

Photos

Appendix AE
Plan for Future Seismic Walkdown of Inaccessible Equipment

All 15 inspection items from Table E-1 of the initial report, as well as their associated Area Walk-Bys, were completed during Dresden's D3R22 outage in the Fall of 2012. The results for these inspection items are included in Appendix AC of this Annex A. No issues or conditions were found during the inspection of these items. No items in Table E-1 remain open.

Twenty-four (24) supplemental internal electrical cabinet inspections listed in Table E-2 of the initial report remain open. These 24 supplemental internal inspection items are re-listed, along with the IRs used to track completion of the Seismic Walkdowns, in Table AE-2 of this Annex A. These items are in process to be completed on or before the original commitment date of Winter 2022 (D3R27).

The Area Walk-Bys of the vicinity of the supplemental internal electrical cabinet inspections were completed previously and was documented in Appendix D of the initial report.

Table AE-2. Supplemental Cabinet Internal Inspection List

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-7838-2----M05	480V AC/ MCC 38-2	(01) Motor Control Centers	No	Energized 480VAC cabinets. Electrical safety hazard.	4Q2013	IR 1403575 WO 631303	Open
D03-7839-2----M05	480V AC/ MCC 39-2	(01) Motor Control Centers	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R27	IR 1440232 WO 1388637	Open
D03-8303A-----M05	250V DC/ MCC Bus #3A (ROB-RB MCC #3)	(01) Motor Control Centers	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	IR 1447758 WO 01587273	Open
D03-8303B-----M05	250V DC/ MCC Bus #3B (ROB-RB MCC #3)	(01) Motor Control Centers	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	IR 1447758 WO 01587273	Open
D03-83125-----P06	125V DC/ RB 125V DC Distribution Panel #3	(01) Motor Control Centers	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	IR 1447758 WO 01587273	Open
D03-9802-A----P06	24/48V DC/ Distribution Panel #3A	(01) Motor Control Centers	No	Tools required. Internal inspection of mountings will require removal of cover over breakers (similar to home breaker cabinet)	1Q2022	IR 1440229 WO 99053854	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-7338------S35	480V AC/ Switchgear 38	(02) Low Voltage Switchgear	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R26	IR 1440231 WO 99212406	Complete (11/2012) See Appendix AC
D03-7339------S35	480V AC/ 480V Switchgear 39	(02) Low Voltage Switchgear	No	Energized 480VAC cabinets. Electrical safety hazard.	D3R27	IR 1440232 WO 538717	Open
D03-67341-----S35	4160V AC/ Switchgear 34-1	(03) Medium Voltage Switchgear	No	Energized 4160VAC cabinets. Electrical safety hazard.	D3R27	IR 1440232 WO 1390287	Open
D03-83250-A01-M05	250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)	(14) Distribution Panels	Yes	Tight thumbscrews. Will require screwdriver to open.	1Q2013	IR 1447758 WO 01587273	Open
D03-9802A-A21-B11	24/48V DC/ Breaker to Battery Charger #3A (+)	(14) Distribution Panels	No	Tools required. Internal inspection of mountings will require removal of cover over breakers	1Q2022	IR 1440229 WO 99053854	Open
D03-8300--3A--B05	125V DC/ Battery Charger #3A	(16) Battery Chargers and Inverters	Partial	Tools required. Most sections can be easily accessed. However the lower left section will require tools to remove covers to inspect mounting points.	1Q2013 Partial	IR 1447758 WO 01587273	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-8300--3---B05	125V DC/ Battery Charger #3	(16) Battery Chargers and Inverters	Partial	Tools required. Most sections can be easily accessed. However the lower left section will require tools to remove covers to inspect mounting points.	1Q2013 Partial	IR 1447758 WO 01587273	Open
D03-83250-3---B05	250V DC/ Battery Charger #3	(16) Battery Chargers and Inverters	Partial	Tools required. Most sections can be easily accessed. However the lower left section will require tools to remove covers to inspect mounting points.	1Q2013 Partial	IR 1447758 WO 01587273	Open
D00-2223-0109	CONTROL PANEL/ DG Cooling Pump Transfer Switch Status	(20) Instrumentation and Control Panels and Cabinets	Yes	Tight thumbscrews. Will require screwdriver to open.	4Q2013	IR 1447758 WO 01587273	Open
D00-ACP	CONTROL PANEL/ Unit 2/3 Auxiliary Control Panel	(20) Instrumentation and Control Panels and Cabinets	Yes	Tight thumbscrews. Will require screwdriver to open.	4Q2013	IR 1447758 WO 01587273	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D00-DGCP	CONTROL PANEL/ Unit 2/3 Diesel Generator Control Panel	(20) Instrumentation and Control Panels and Cabinets	Partial	Tools required. There are two panels at this point. The larger of the two can be opened. The smaller (mounted on the right side) cannot be opened without the use of tools. The panel label is located on the smaller panel.	4Q2013 Partial	IR 1447758 WO 01587273	Open
D00-NGC (This is assumed to be EPN 2/3-6600-NGT)	CONTROL PANEL/ Unit 2/3 Neutral Grounding Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	N/A	4Q2013	IR 1447758 WO 01587273	Open
D03-0903-0003	CONTROL PANELS/ Control Panel 903-3	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS (NO PHOTO ALLOWED)
D03-0903-0015	CONTROL PANELS/ Control Panel 903-15	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-0903-0028	CONTROL PANELS/ Control Panel 903-28	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS
D03-0903-0039	CONTROL PANELS/ Control Panel 903-39	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS (NO PHOTO ALLOWED)
D03-0923-0005	CONTROL PANELS/ Control Panel 923-5	(20) Instrumentation and Control Panels and Cabinets	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS (NO PHOTO ALLOWED)
D03-2253-0010	CONTROL PANEL/ DG Metering and Relay Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	N/A	4Q2013	IR 1447758 WO 01587273	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-2253-0021	CONTROL PANEL/ DG Excitation Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	Thumbscrews. May require screwdriver to open.	4Q2013	IR 1447758 WO 01587273	Open
D03-7838-1-1--P06	DISTRIBUTION PANELS/ Distribution Panel 38-1-1	(20) Instrumentation and Control Panels and Cabinets	Yes	Tools required. Internal inspection of mountings will require removal of cover over breakers (similar to home breaker cabinet)	4Q2013	IR 1447758 WO 01587273	Open
D03-DGCP	CONTROL PANEL/ Unit 3 Diesel Generator Control Panel	(20) Instrumentation and Control Panels and Cabinets	Yes	Tools required. There are two panels at this point. The larger of the two can be opened. The smaller (mounted on the right side) cannot be opened without the use of tools. The panel label is located on the smaller panel.	4Q2013	IR 1447758 WO 01587273	Open
D03-NGC (This is assumed to be EPN 3-6600-NGT)	CONTROL PANEL/ Unit 3 Neutral Grounding Cabinet	(20) Instrumentation and Control Panels and Cabinets	Yes	N/A	4Q2013	IR 1447758 WO 01587273	Open

COMPONENT ID	DESCRIPTION	EQUIPMENT CLASS	ACCESSIBLE (Y/N)	IF NOT ACCESSIBLE, WHY?	MILESTONE COMPLETION	TRACKING NUMBER (IR No.)	STATUS / INSPECTION RESULTS
D03-2203-0070A	INSTRUMENT RACKS/ Instrument Rack 2203-70A	(18) Instruments on Racks	YES	N/A	7/30/2012	N/A	NO OTHER ADVERSE SEISMIC CONDITIONS
D03-2203-0073A	CONTROL PANEL/ ATS Panel 2203-73A	(18) Control Panel	No	Energized racks that pose electrical safety hazard and operational safety risks.	4Q2014	IR 1493216	Open
D03-2253-0084	CONTROL PANEL/ Instrument Cabinet 2253-84	(18) Control Panel	No	Energized racks that pose electrical safety hazard and operational safety risks.	4Q2014	IR 1493216	Open
D03-7338------T10	480V AC/ Transformer 38, Feed to Switchgear 38	(04) Transformers	N/A	This is a Transformer, not a panel or cabinet.	N/A	IR 1440231 WO 99212406	Internal Inspection Not Applicable
D03-2380------PSH	HPCI/ HPCI Turbine Pressure Switch High	Switch	N/A	This is a Switch, not a panel or cabinet.	N/A	IR 1440230 WO 654449	Internal Inspection Not Applicable

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
Dresden Nuclear Power Station
Unit 3

Annex A

March 28, 2013

Prepared by Peer Reviewers

Mohammad Hosain (Team Leader)
Bryan Weight

Mohammad Hosain / M Abul Hosain 3/28/13
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 Walkdown, Annex A follow-on activities performed by Exelon Dresden Engineering Department for Unit 3 of the Dresden Nuclear Power Station (DNPS). This peer review includes review of pages iii and ix of Report RS-12-167 as updated to reflect Annex 'A'. The peer review process includes the following activities:

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 (Annex A).

Summarize the results of the peer review process in the final submittal report.

This peer review does not include the review of the selection of the structures, systems, and components (SSCs) included in this follow-on walkdown as they were included in the initial report and had been reviewed under the peer review of that report.

1.2 Peer Reviewers

The peer reviewers for DNPS, Unit 3 are Messrs. Mohammad Hosain and Bryan Weight, all of Dresden. Mr. M. Hosain is designated the Peer Review Team Leader. None of the aforementioned engineers were SWEs in the follow-on seismic walkdown inspections, and they are independent from the inspection results and selection of SSCs. Mr. Hosain is independent of all aspects of this project. Mr. Weight was the Licensing Basis and IPEEE reviewer for the initial report but there were no changes to the Licensing Basis and IPEEE evaluations for this updated Annex A. Mr. Hosain is an equipment seismic qualifications engineer, with over 30 years of nuclear seismic experience. He is also a Seismic Capability Engineer (EPRI SQUG training). Mr. Weight has over 35 years of experience, 15 years of nuclear structural and seismic experience, covering all aspect of Civil/Structural Engineering. He is also a Seismic Capability Engineer (EPRI SWE & SQUG training).

No issues were identified which challenged the current licensing basis.

1.3 SWEL Development

No new equipment was added to the SWEL presented in the initial report.

1.4 Seismic Walkdown Inspection

The peer review of the follow-on seismic walkdown inspection started on November 13, 2013 with a peer check of the actual walkdown by Mr. Bryan Weight. Mr. Weight joined the walkdown team to observe the conduct of the walkdowns and adherence to the Seismic Walkdown Guidance (SWG) [1]. The peer review discussions on the follow-on activities are documented in Section 3.

Foot Note:
1. Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic, EPRI Report 1025286, June 2012.

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 and SWEL development do not apply in this case.

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

3.1 Overview

A peer review of the follow-on activities started with observation of walkdown team in November 2012. A peer review of Annex A, including SWCs and AWCs completed for the follow-on items identified in Tables A3-1 and A3-2, was performed on March 25 and 26, 2013, subsequent to performance of those activities. It was concluded that the walkdown team performed their assessments and evaluation properly.

3.2 Follow-on Seismic Walkdown Checklists

100% of the equipment inspected during the follow-on walkdowns 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
D03-0302-0156AV05	CRD/ East Bank Scram Discharge Volume Drain Valve	No concerns
D03-0302-0157AV05	CRD/ East Bank Scram Discharge Volume Drain Valve	No concerns
D03-1601-0021-V05	PRESSURE SUPPRESSION/ Drywell Purge Line Valve	No concerns
D03-1601-0022-V05	PRESSURE SUPPRESSION/ Drywell/Torus Purge Line Valve	No concerns
D03-2001-0005-V05	RB EQUIPMENT DRAIN/ Drywell Equipment Drain Line Valve	No concerns
D03-2001-0105-V05	RB EQUIPMENT DRAIN/ Drywell Floor Drain Line Valve	No concerns
D03-0202-0005AV20	REACTOR RECIRCULATION/ Recirc Pump A Discharge Valve	No concerns
D03-0203-0001AV05	MAIN STEAM/ Isolation Valve	No concerns
D03-0203-0003AV26	ADS/ Target Rock Valve	No concerns
D03-0203-0003BV26	ADS/ Electromatic Relief Valve	No concerns
D03-0203-0004AV26	ADS/ Reactor Overpressure Relief Valve	No concerns
D03-1301-0004-V20	ISOLATION CONDENSER/ Steam Return Line Isolation Valve	No concerns
D03-2301-0008-V20	HPCI/ HPCI Pump Injection Line Valve	No concerns
D03-83250-A01-M05	250V DC/ Breaker to TB MCC #3 (ROB-Battery #3)	No concerns
D03-0302-0082B-LT	CRD/ East Bank SDV Tank Level Transmitter	No concerns

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

Component ID	Description	Observations
D03-7338------S35	480V AC/ Switchgear 38	No concerns

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

Area	Area Description	Components Within Area	Observations
Outage-1	Torus Catwalk Bay 4	D03-0302-0156AV05	No concerns
		D03-0302-0157AV05	
		D03-1601-0021-V05	
		D03-1601-0022-V05	
		D03-2001-0005-V05	
Outage-2	Torus Catwalk Bay 14	D03-2001-0105-V05	No concerns
Outage-3	Drywell Basement - 120°	D03-0202-0005AV20	No concerns
Outage-4	Drywell Ground Floor - 0°	D03-0203-0001AV05	No concerns
Outage-5	Drywell 2nd Floor - 45°-90°	D03-0203-0003AV26	No concerns
		D03-0203-0003BV26	
		D03-0203-0004AV26	
Outage-6	Drywell 2nd Floor - 190°	D03-1301-0004-V20	No concerns
Outage-7	MSIV Room / X-Area	D03-2301-0008-V20	No concerns
Outage-8	Battery Charger Room	D03-83250-A01-M05	No concerns
AWC-U3-12	East HCU Bank	D03-0302-0082B-LT	No concerns

3.3 Evaluation of Findings

There were no findings of seismic significance and 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 corrective action issues in Report RS-12-167 have been addressed, as well as a corrective action identified during follow-on Area Walk-Bys, as shown in Table 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 (Annex A) has been reviewed by Mr. Mohammad Hosain per the requirements of EPRI Seismic Walkdown Guidance (EPRI 1025286), and found to be acceptable. The review comments have been duly addressed and appropriately incorporated in the Report. The report meets the objectives and requirements of the 50.54(f) letter.

6 References

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

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

AG IPEEE Vulnerability Status

See Appendix G of initial report, no changes to the IPEEE vulnerability status was made for this Annex A.