Seismic Walkdown Checklist (SWC)

Equipment ID No. OBV036 Equip. Class[12] (9) Fans

Equipment Description Battery Room Exhaust Fan B

Location: Bldg. TB Floor El. 165 Room, Area FAN Room (Area also considered to be in R/W building) BMF 10/8/11

Manufacturer, Model, Etc. (optional but recommended) _____

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

   Verified per Dwg. 6280-S-979-0, Rev. 0

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

   Anchorage is in good condition.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

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.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. OBV036 Equip. Class[12] (9) Fans

Equipment Description Battery Room Exhaust Fan B

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft targets identified.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Overhead fluorescent light fixture has open S hooks. No soft targets in vicinity, so no issue.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

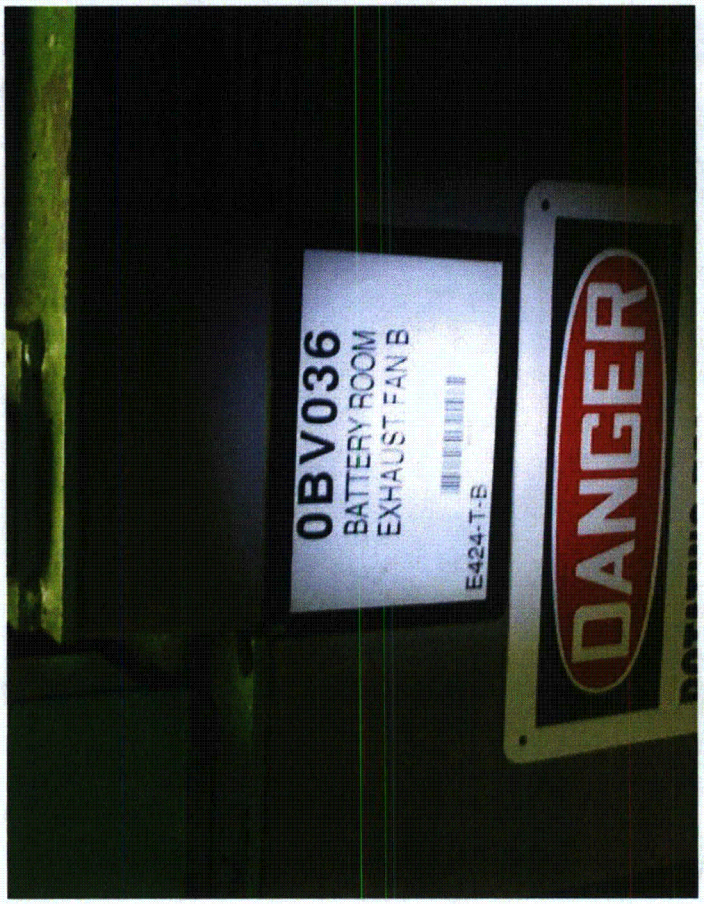
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

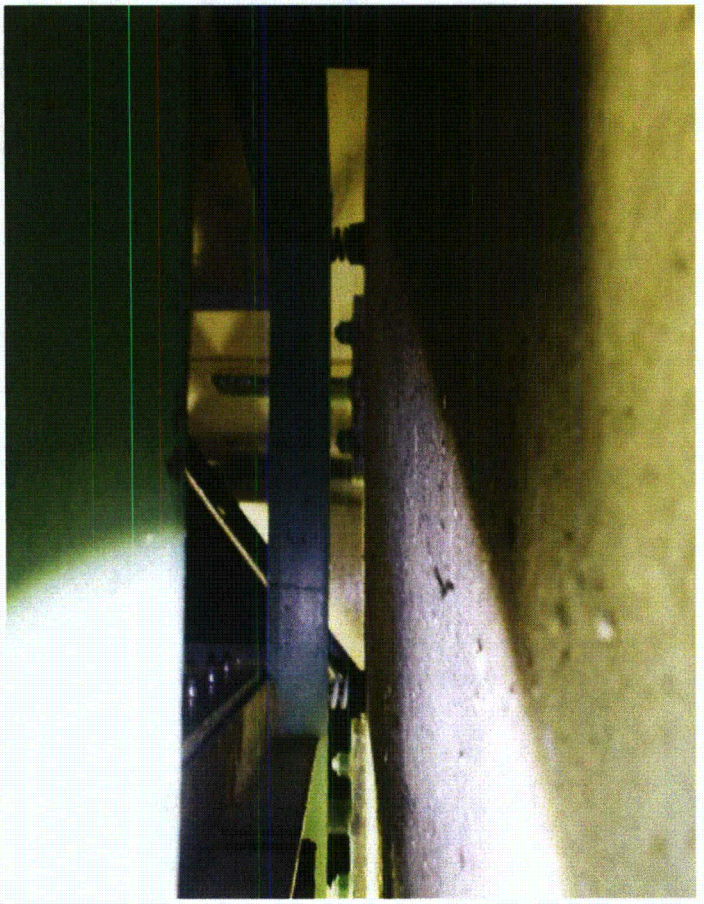
Comments (Additional pages may be added as necessary)

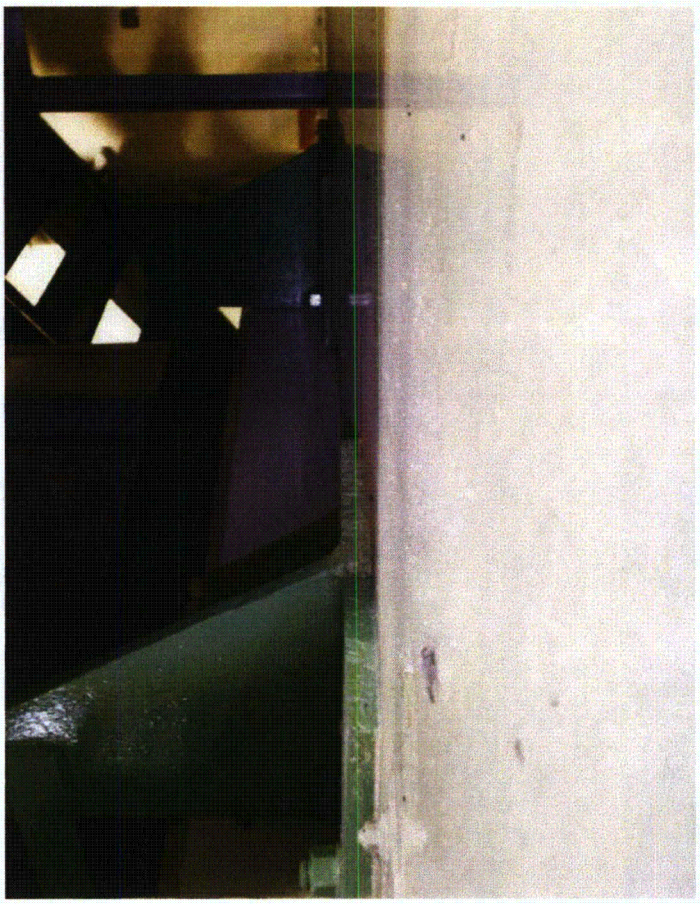
Evaluated by: _____ Date: 9/12/12

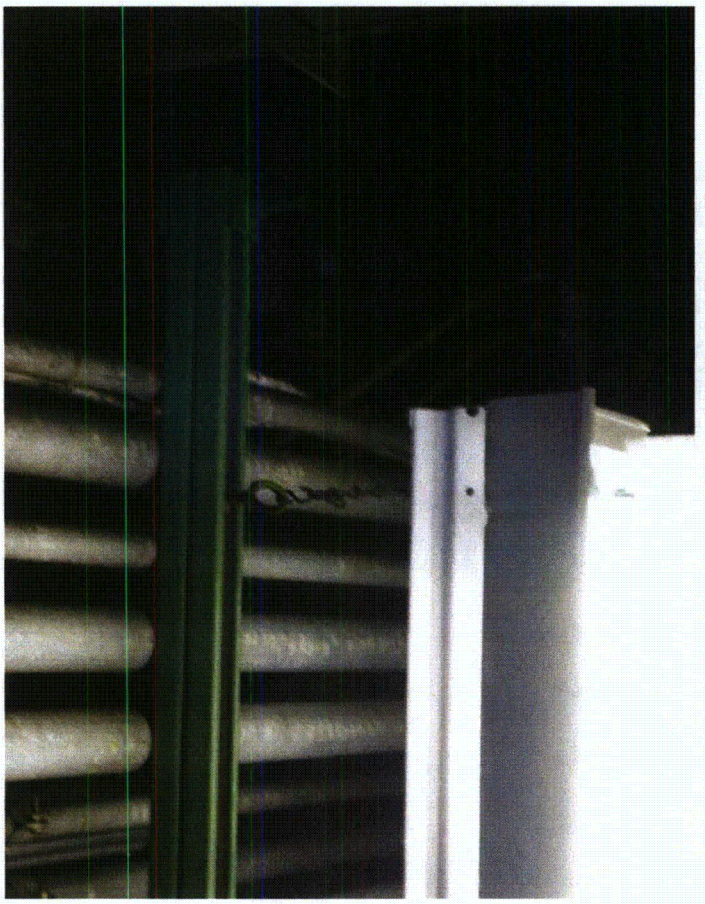
_____ 9/12/12

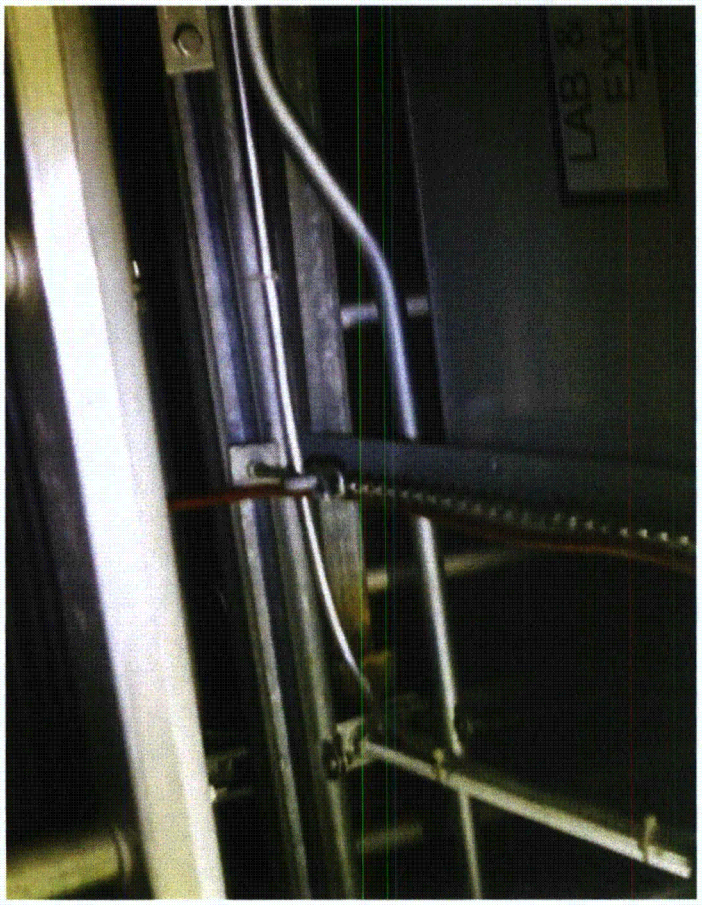
Equipment ID: 0BV036











Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. 0DE377 Equip. Class[12] (21) Tanks or Heat Exchangers ~~(Vertical)~~ (Horizontal) gw 9/13/2012

Equipment Description *E4 Diesel Generator Lube Oil Cooler* gw 9/13/2012

Location: Bldg. *Diesel Generator Building* Floor El. *127* Room, Area ~~D/G-3~~ D/6-9

Manufacturer, Model, Etc. (optional but recommended) _____

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐
MOUNTED TO STRUCTURAL STEEL, WHICH IS ~~ANCHORED TO CRACK FREE CONCRETE~~ mounted to cooler below, which is anchored to engine skid gw 8/31/2012

5. Is the anchorage configuration consistent with plant documentation? Y☒ N☐ U☐ N/A☐
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
· Matches configuration evaluated in calculation No. 6280-E5-155-1 (Rev. 1)

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

gw 9/13/2012

Equipment ID No. 0DE377 Equip. Class[12] (21) Tanks or Heat Exchangers ~~(Vertical)~~ (Hori. Zontal)

Equipment Description *E4 Diesel Generator Lube Oil Cooler*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐

   NO SOFT TARGETS

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐

   UNCAGED FLUORESCENT TUBES WILL NOT CAUSE SIGNIFICANT DAMAGE
   KB 9/13/12

9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☑ N☐ U☐

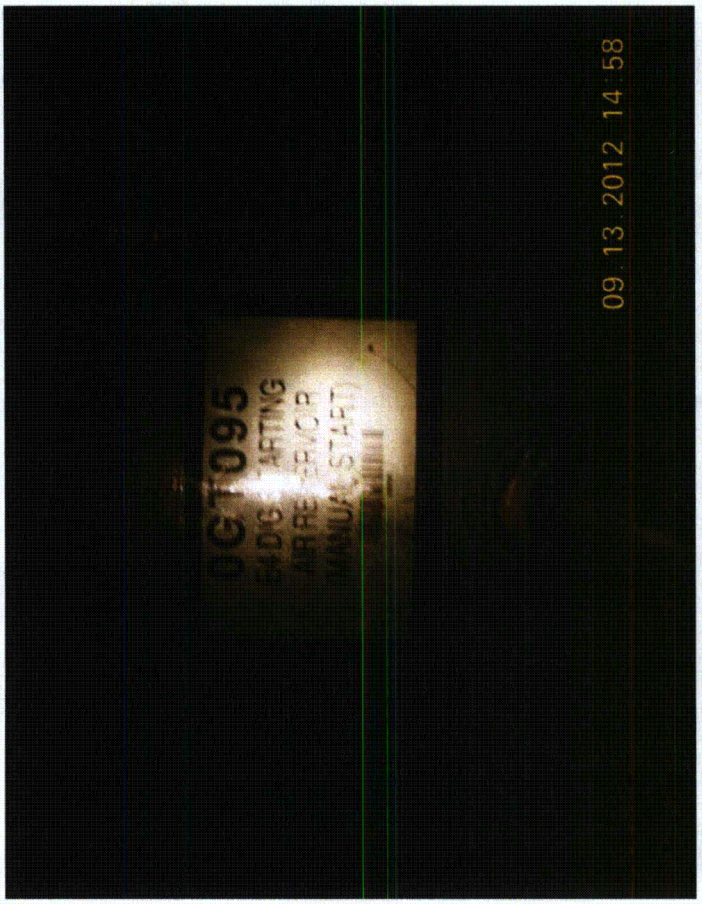
Comments (Additional pages may be added as necessary)

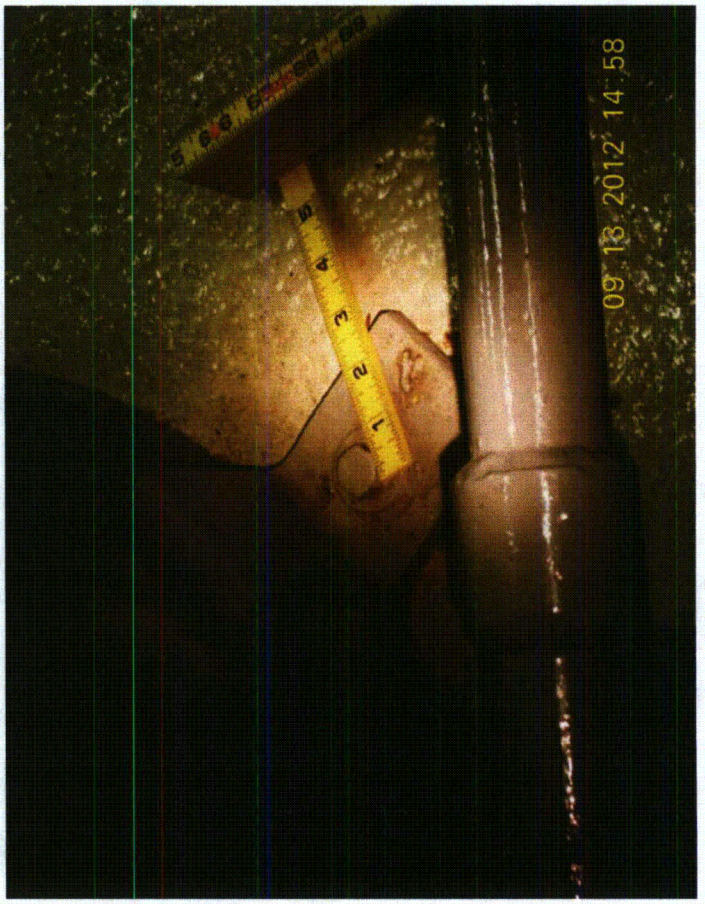
N/A

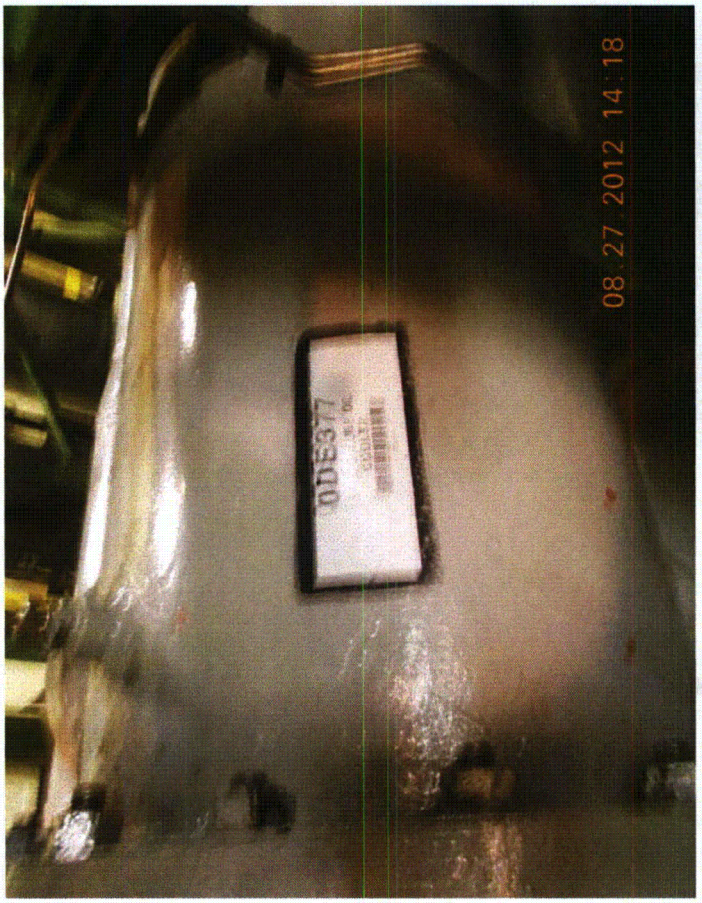
Evaluated by: James Wiggin Date: 9/13/2012

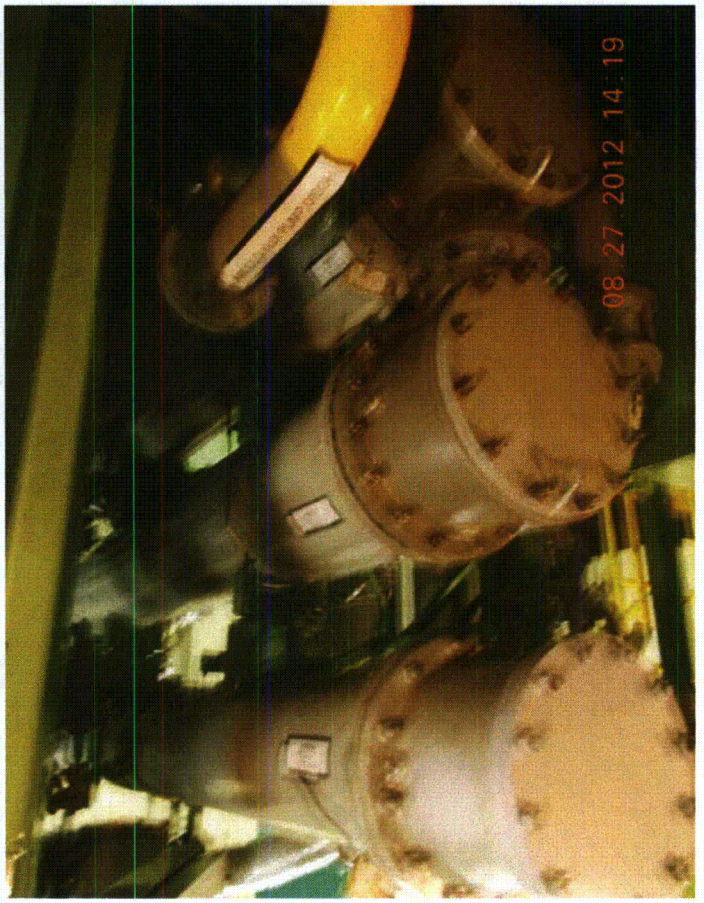
JK: GS 9/17/2012

Equipment ID: 0DE377

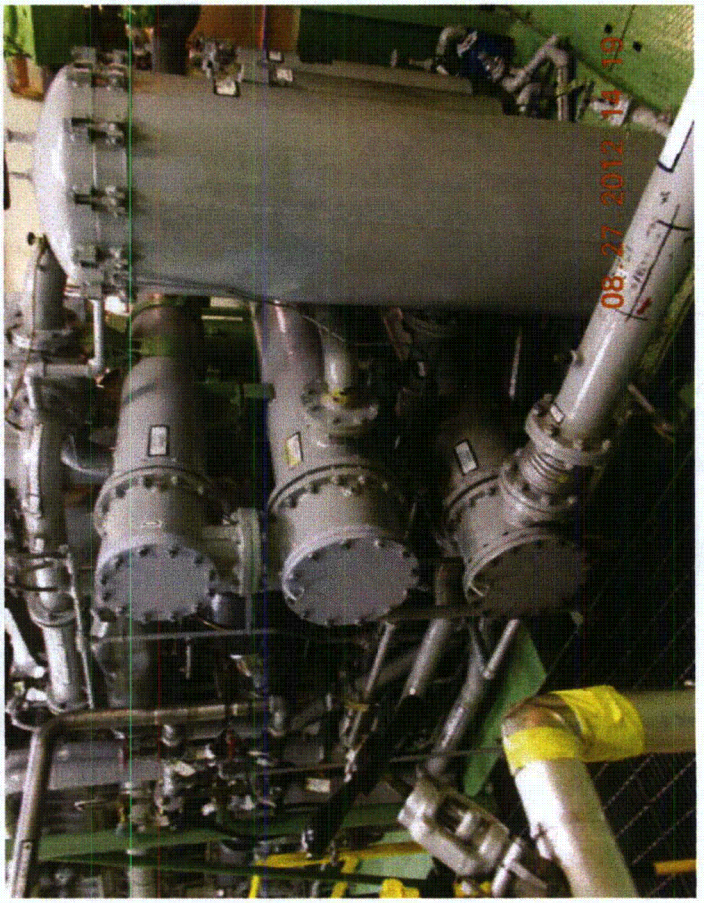


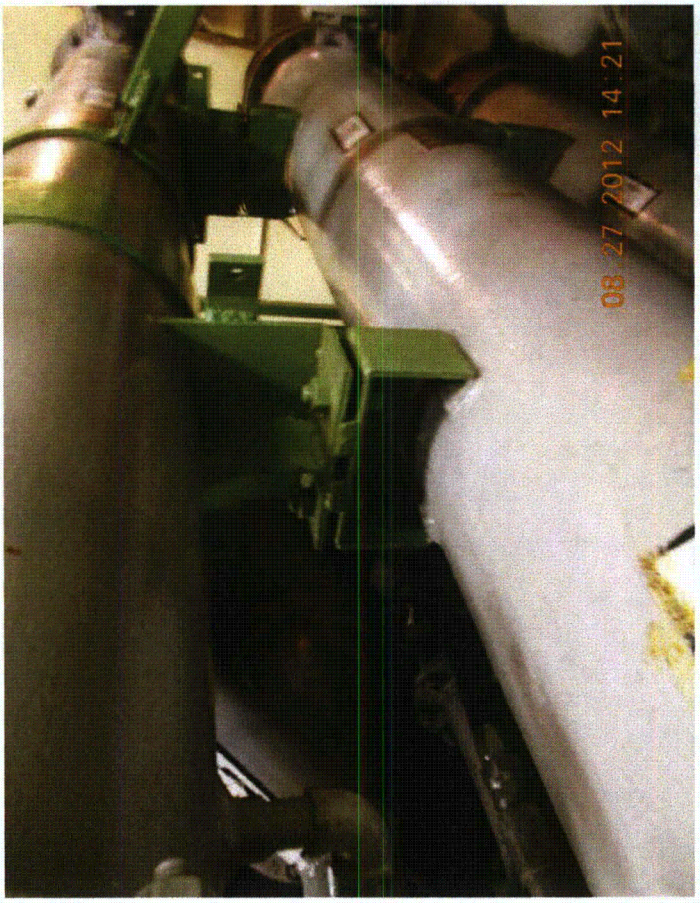


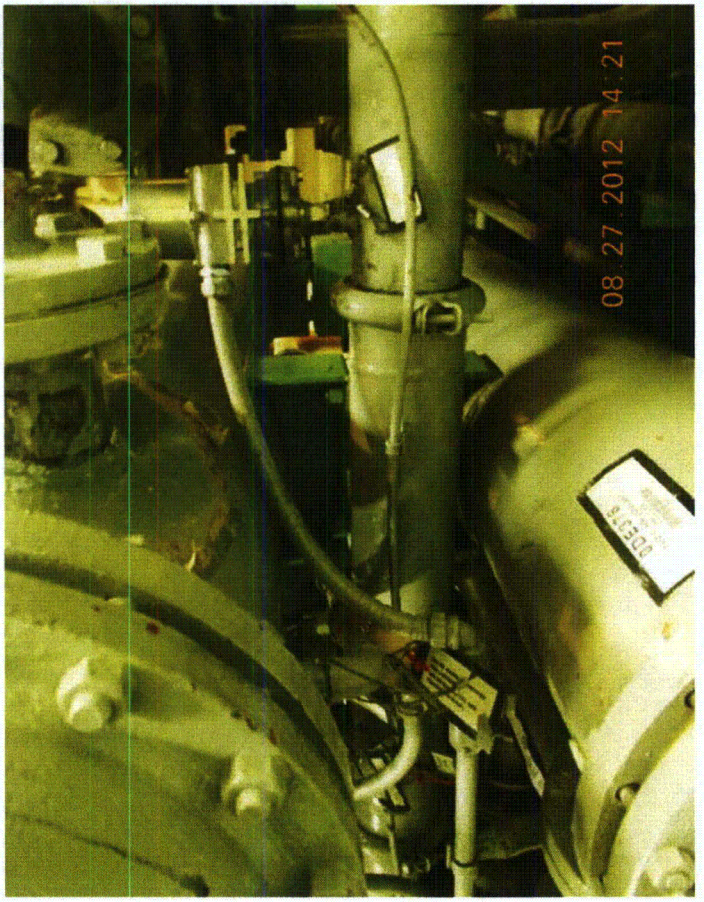


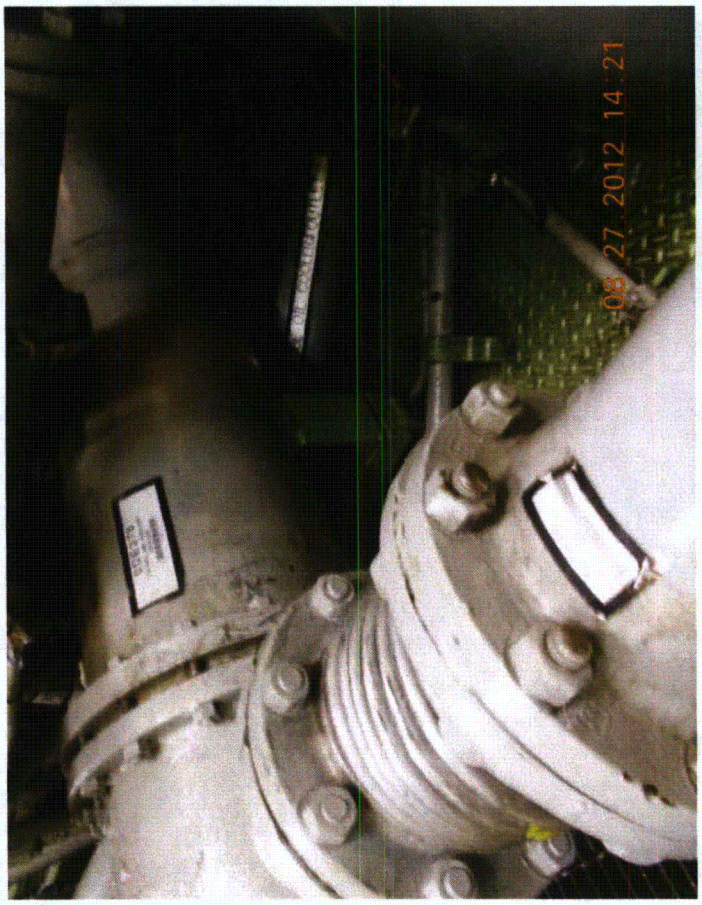


Equipment ID: 0DE377





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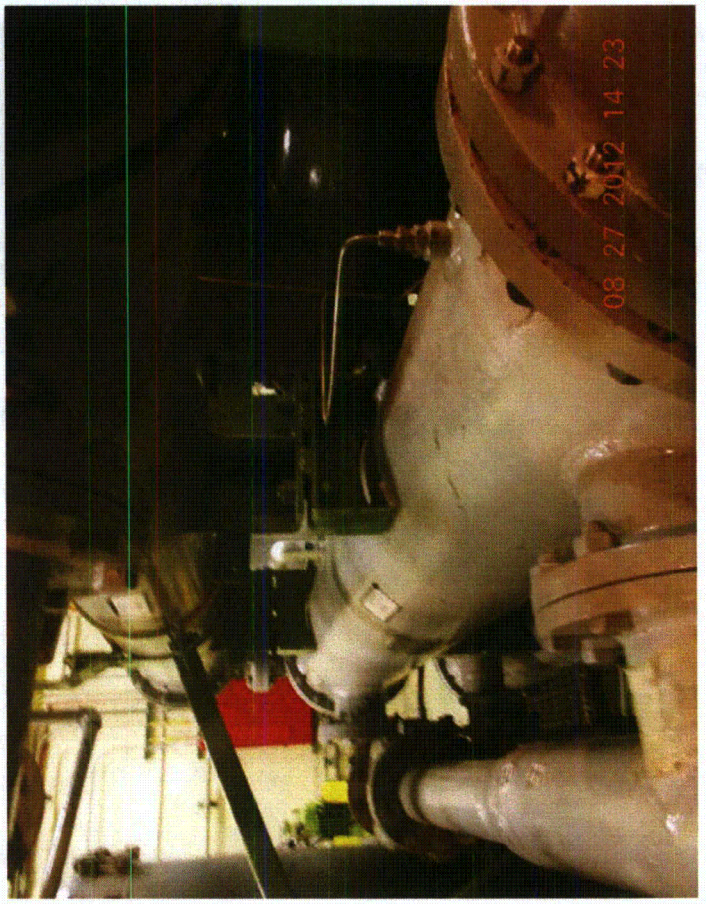
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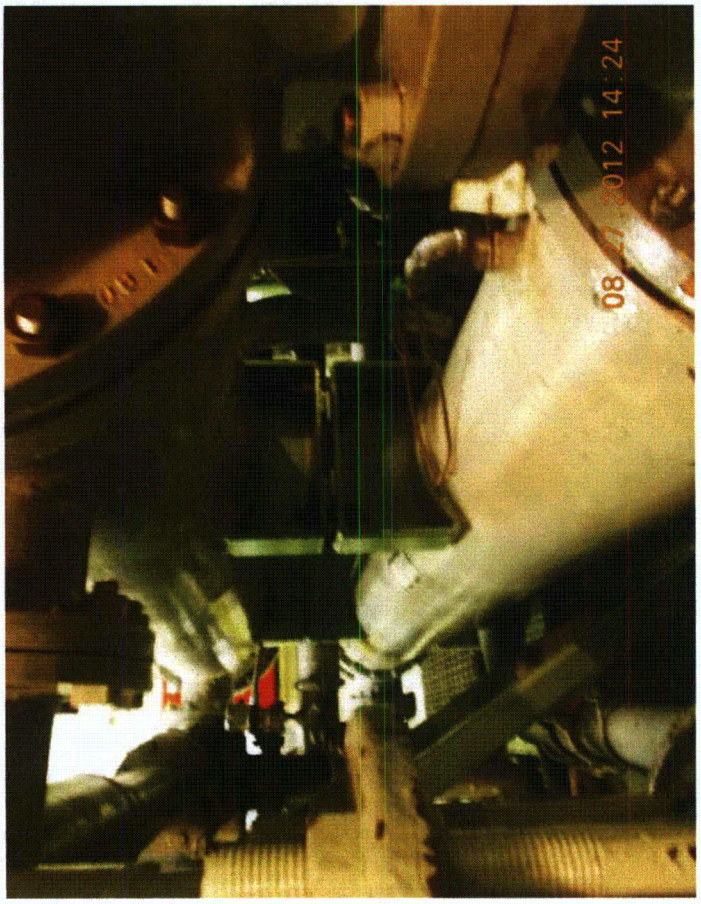
08 27 2012 14:24

Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. 0DG012 Equip. Class[12] (17) Engine Generators

Equipment Description *E4 Standby Diesel Generator*

Location: Bldg. *Diesel Generator Building* Floor El. *127* Room, Area *D/G-9*

Manufacturer, Model, Etc. (optional but recommended) FAIRBANKS MORSE

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐

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.) Y☐ N☒ U☐ N/A☐

•Does not match configuration evaluated in Calculation No. 6280-E5-155-1 (Rev. 1); as-built configuration has 1" anchor bolts securing skid to foundation instead of evaluated 1¼" anchor bolts. Judged acceptable for anticipated seismic loads per attached evaluation.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

↳ ANCHOR BOLT SIZE DISCREPANCY DOCUMENTED IN IR # 01438055 KG 11/9/12

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. 0DG012 Equip. Class[12] (17) Engine Generators

Equipment Description *E4 Standby Diesel Generator*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐
   TEMPERATURE GAUGE ON SCAVENGING AIR COOLER INLET COULD CONTACT ADJACENT LINE AND HOUSING COULD CRACK. WILL NOT AFFECT SAFETY FUNCTION
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐
   FLUORESCENT LIGHT TUBES FALLING JUDGED CREDIBLE, BUT NOT SIGNIFICANT
9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☑ N☐ U☐

Comments (Additional pages may be added as necessary)

IPEEE: - CRANE CONTROLLER ATTACHED TO WALL
- ANGLE IRON ~~ATTA~~ TO WELDED TO SUPPORT STRUCTURE TO PREVENT LATERAL MOTION OF VIBRATION ISOLATORS ON CONTROL/GAUGE PANEL

Evaluated by: James Wiggin Date: 9/17/2012
K. Gee 9/17/2012

DIESEL GENERATOR HOLDDOWN BOLTS

DESIGNED AS 1¼" Ø BOLTS

AS FOUND 1" Ø BOLTS

TENSILE STRESS AREA FOR 1¼" BOLTS = 0.969 in² (CALC 6280-E5-155-1)

" " " " 1" BOLT = 0.606 in² (COARSE THREAD UNC SERIES http://www.efunda.com/designstandards/screws/screwunc.cfm ACCESSED 9/13/2012)

$$\text{RATIO} = \frac{.606}{.969} = 0.625$$

PRIMARY TENSILE ~~LOAD~~ STRESS IN BOLT IS 0 SINCE NO UPLIFT PER CALC 6280-E5-155-1.

SHEAR STRESS IN 1¼" BOLT = 2.02 ksi (CALC 6280-E5-155-1)

SCALING BY $\frac{1}{0.625} = \frac{1}{.625} \times 2.02 \text{ ksi} = 3.23 \text{ ksi}$

~~PROOF LOAD~~ SHEAR STRENGTH IN CALC IS 33,000 psi

STRESS IS MUCH LOWER THAN ALLOWABLE ∴ OK

CONCRETE CHECK

* ASSUMES MIN EMBEDMENT DEPTH IS MET

CAST IN PLACE 1" BOLT ALL. MAX PULLOUT = 26.69 kip
ALL. MAX SHEAR = 13.35 kip } CIP TABLE C.3

MAX TOTAL SHEAR LOAD (12 BOLTS) = 23479 lb (CALC 6280-E5-155-1)
MAX TOTAL PULLOUT LOAD (12 BOLTS) = 0 lb (CALC 6280-E5-155-1)

$$\text{SHEAR LOAD PER BOLT} = \frac{23479 \text{ lb}}{12} = 1957 \text{ lb}$$

SHEAR IS MUCH LESS THAN ALLOWABLE. ~~NEGLECTING PRE~~
THEREFORE, ANCHOR BOLTS ARE OK.

ODG012

Design Home
- Screw Threads
  - Thread System
  - Unified Screw Threads
    - UNC Coarse
    - UNF Fine
    - UNEF Extra Fine
    - Unified Standard Series
    - Tap Drill
  - Constant Pitch Series
  - Metric Screw Threads
- Torque in Bolts
  - Introduction
  - Torque Calculator
- Resources
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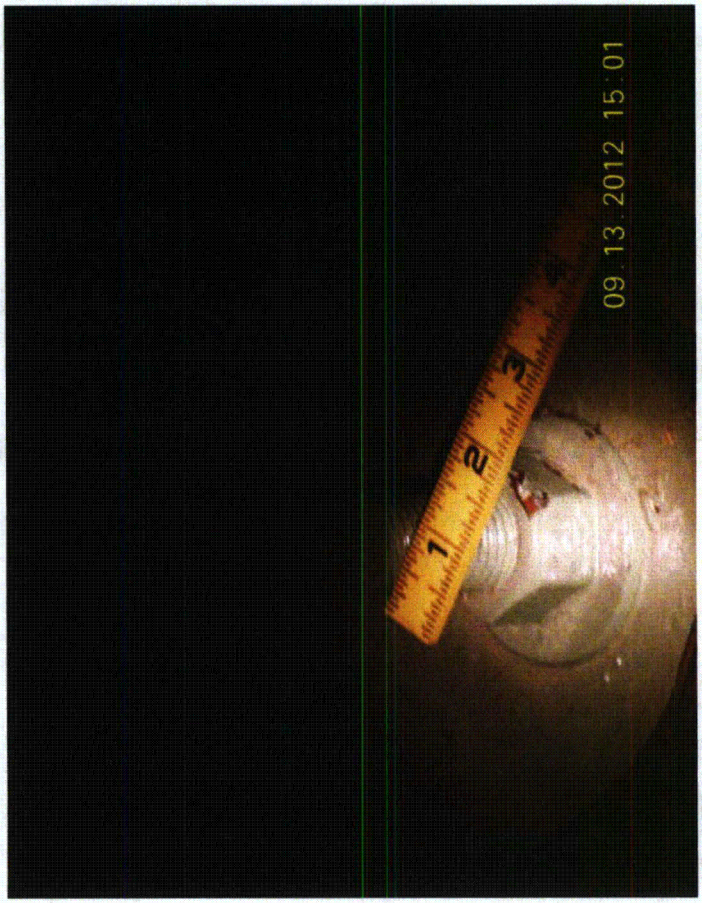
Size	Major Dia	Threads Per Inch	Pitch Dia	Minor Dia External[a]	Minor Dia Internal[b]	Minor Dia Area	Tensile Stress Area
#	Inch	tpi	Inch	Inch	Inch	sq. Inch	sq. Inch
#1*	0.073	64	0.0629	0.0544	0.0561	0.00218	0.00263
#2	0.086	56	0.0744	0.0648	0.0667	0.0031	0.0037
#3*	0.099	48	0.0855	0.0741	0.0764	0.00406	0.00487
#4	0.112	40	0.0958	0.0822	0.0849	0.00496	0.00604
#5	0.125	40	0.1088	0.0952	0.0979	0.00672	0.00796
#6	0.138	32	0.1177	0.1008	0.1042	0.00745	0.00909
#8	0.164	32	0.1437	0.1268	0.1302	0.01196	0.014
#10	0.19	24	0.1629	0.1404	0.1449	0.0145	0.0175
#12*	0.216	24	0.1889	0.1664	0.1709	0.0206	0.0242
¼	0.25	20	0.2175	0.1905	0.1959	0.0269	0.0318
5/16	0.3125	18	0.2764	0.2464	0.2524	0.0454	0.0524
3/8	0.375	16	0.3344	0.3005	0.3073	0.0678	0.0775
7/16	0.4375	14	0.3911	0.3525	0.3602	0.0933	0.1063
½	0.5	13	0.45	0.4084	0.4167	0.1257	0.1419
9/16	0.5625	12	0.5084	0.4633	0.4723	0.162	0.182
5/8	0.625	11	0.566	0.5168	0.5266	0.202	0.226
¾	0.75	10	0.685	0.6309	0.6417	0.302	0.334
7/8	0.875	9	0.8028	0.7427	0.7547	0.419	0.462
1	1	8	0.9188	0.8512	0.8647	0.551	0.606
1-1/8	1.125	7	1.0322	0.9549	0.9704	0.693	0.763
1¼	1.25	7	1.1572	1.0799	1.0954	0.89	0.969
1-							

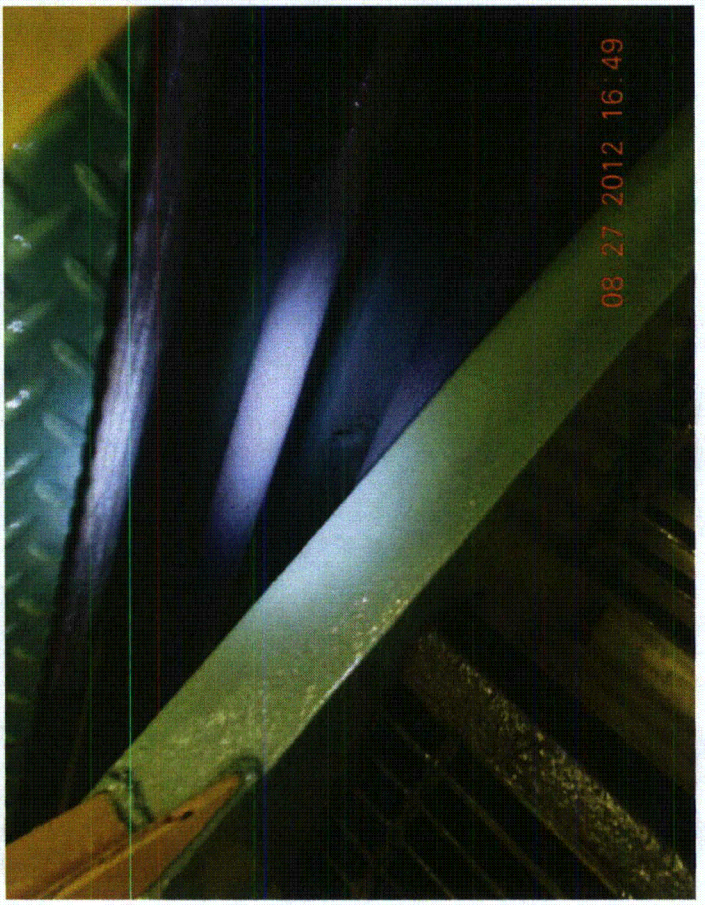
3/8	1.375	6	1.2667	1.1766	1.1946	1.054	1.155
1½	1.5	6	1.3917	1.3016	1.3196	1.294	1.405
1¾	1.75	5	1.6201	1.5119	1.5335	1.74	1.9
2	2	4.5	1.8557	1.7353	1.7594	2.3	2.5
2¼	2.25	4.5	2.1057	1.9853	2.0094	3.02	3.25
2½	2.5	4	2.3376	2.2023	2.2294	3.72	4
2¾	2.75	4	2.5876	2.4523	2.4794	4.62	4.93
3	3	4	2.8376	2.7023	2.7294	5.62	5.97
3¼	3.25	4	3.0876	2.9523	2.9794	6.72	7.1
3½	3.5	4	3.3376	3.2023	3.2294	7.92	8.33
3¾	3.75	4	3.5876	3.4523	3.4794	9.21	9.66
4	4	4	3.8376	3.7023	3.7294	10.61	11.08

*	inch	tpi	inch	inch	inch	sq. inch	sq. inch
Size	Major Dia	Threads Per Inch	Pitch Dia	Minor Dia External[a]	Minor Dia Internal[b]	Minor Dia Area	Tensile Stress Area
* Secondary Size		[a]Form for UNR thread			[b]Basic Minor Diameter		


09 13 2012 15:01


0DG012
E4 STANDBY
DIESEL GENERATOR
08 27 2012 16:48


08 27 2012 16:48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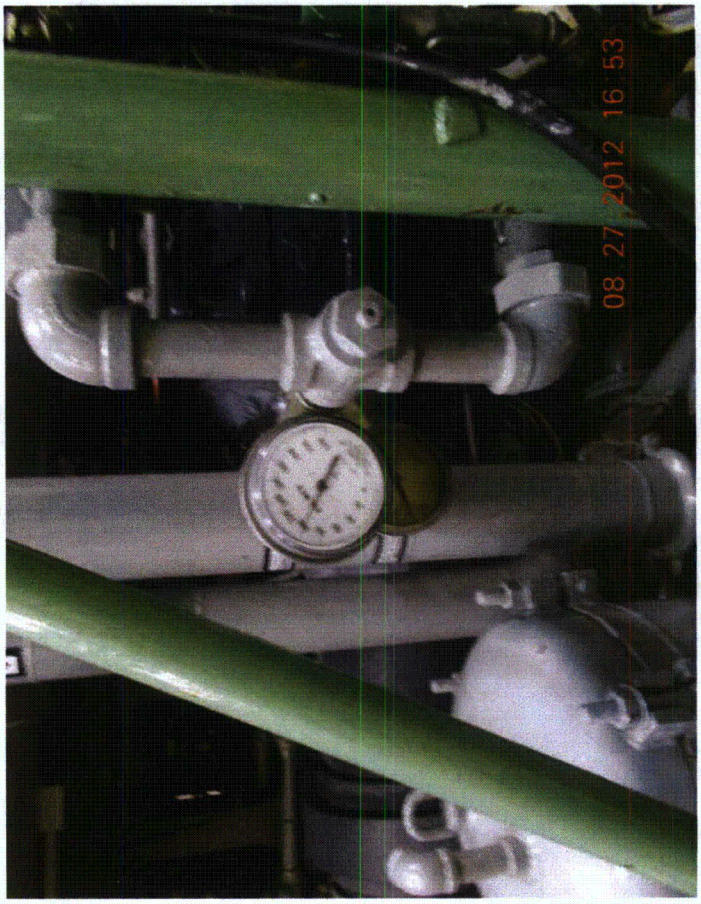
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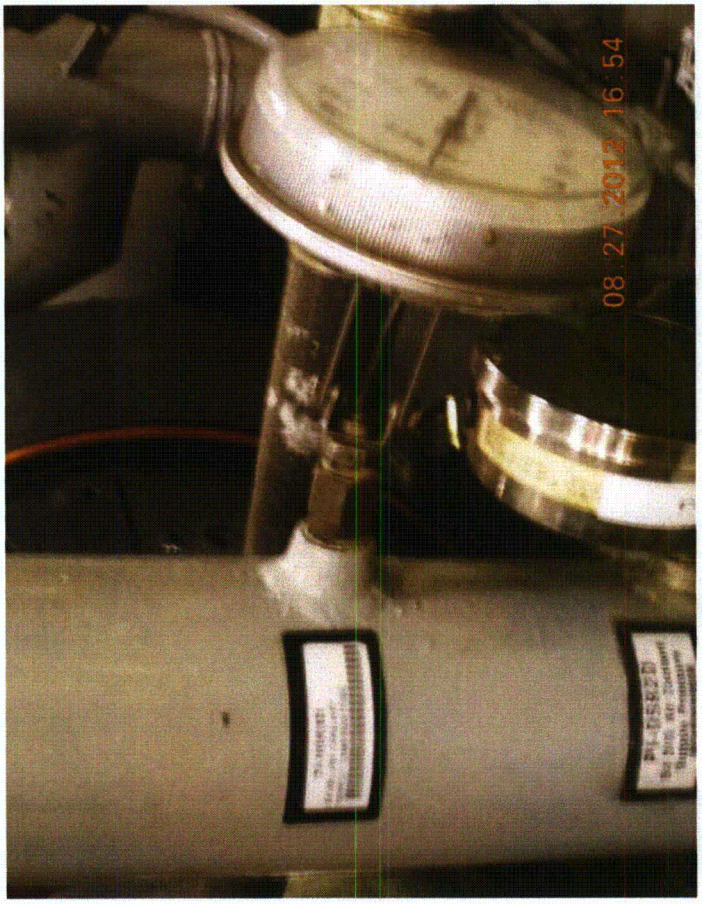
08 27 2012 16 54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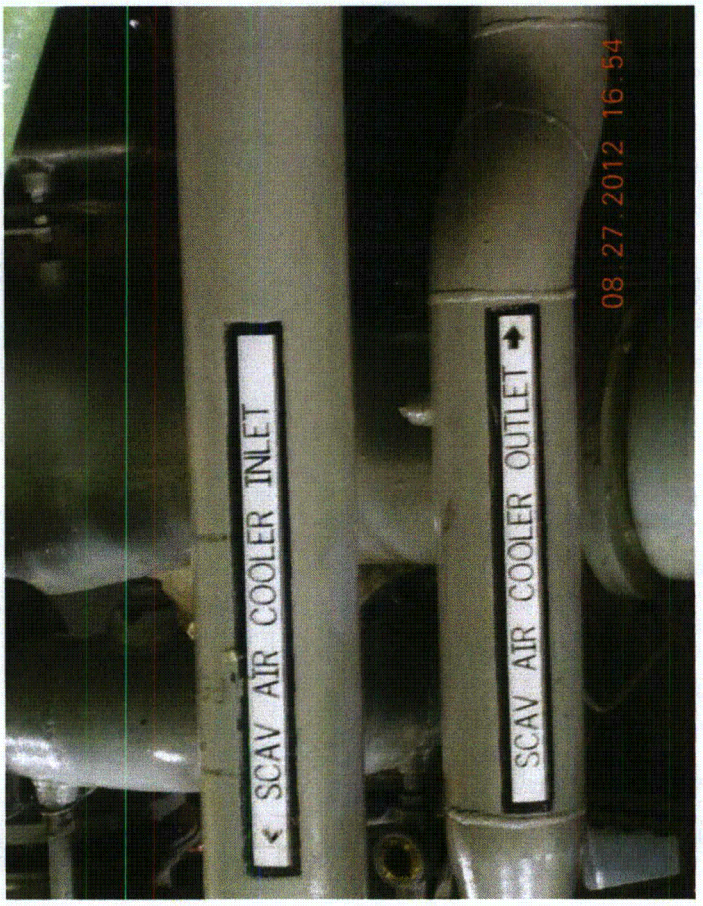
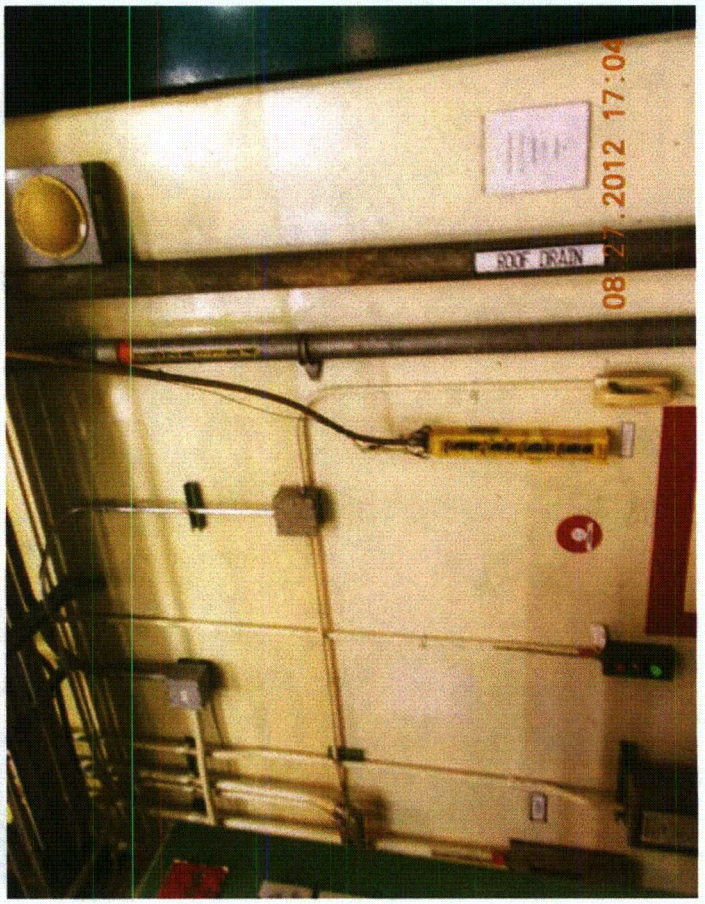

SCAV AIR COOLER INLET
SCAV AIR COOLER OUTLET
08 27 2012 16 54


08 27 2012 17:03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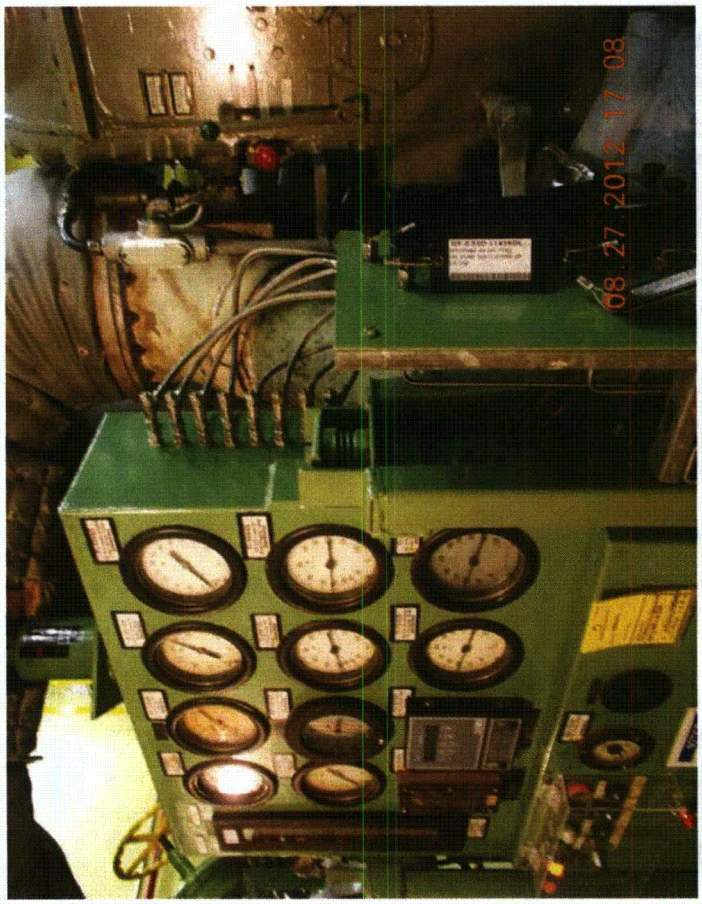
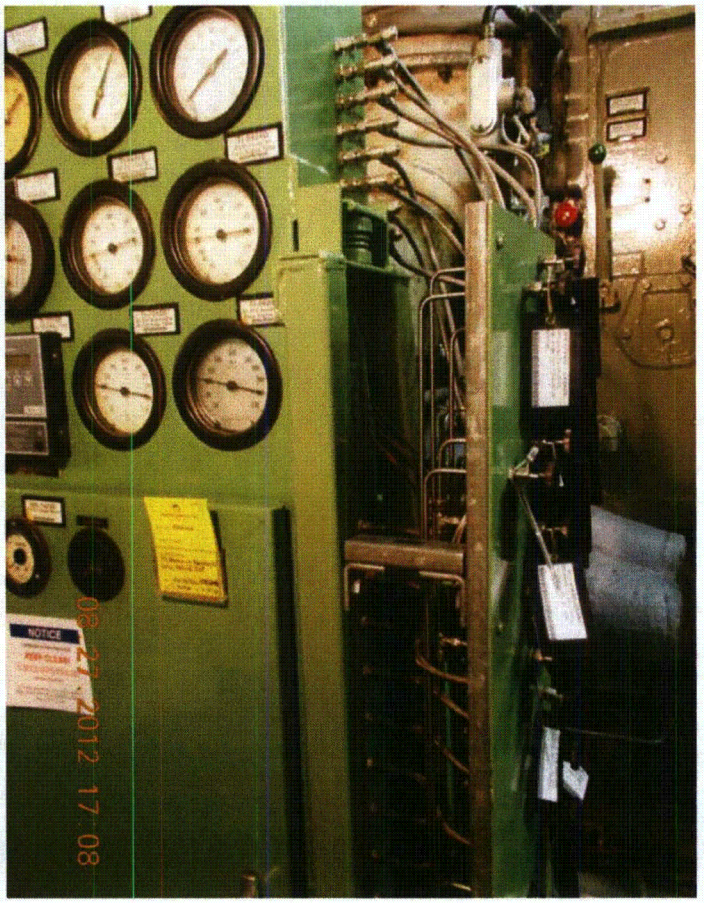

08 27 2012 17 08


NOTICE
08 27 2012 17 08

Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. 0DP167 (060 KB 8/27/12) Equip. Class[12] (05) Horizontal Pumps

Equipment Description *E4 D/G ~~Lube~~ Oil Transfer Pump* (FUEL KB 8/27/12)

Location: Bldg. *Diesel Generator Building* Floor El. ~~127~~ ~~124~~ ~~10/31/12~~ MO Room, Area *D/G-9*

127 MO 11/8/12

Manufacturer, Model, Etc. (optional but recommended) _____

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐

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.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. 0DP167 060 Fuel 9/17/2012 Equip. Class[12] (05) Horizontal Pumps

Equipment Description *E4 D/G ~~Lube~~ Oil Transfer Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐
   NO SOFT TARGETS

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☑ N☐ U☐

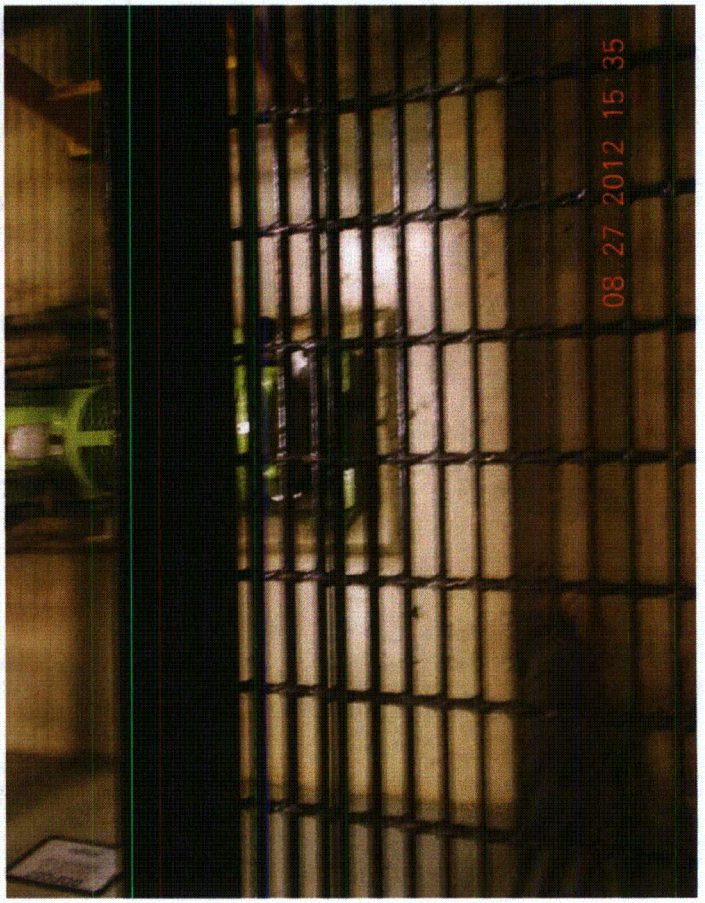
Comments (Additional pages may be added as necessary)

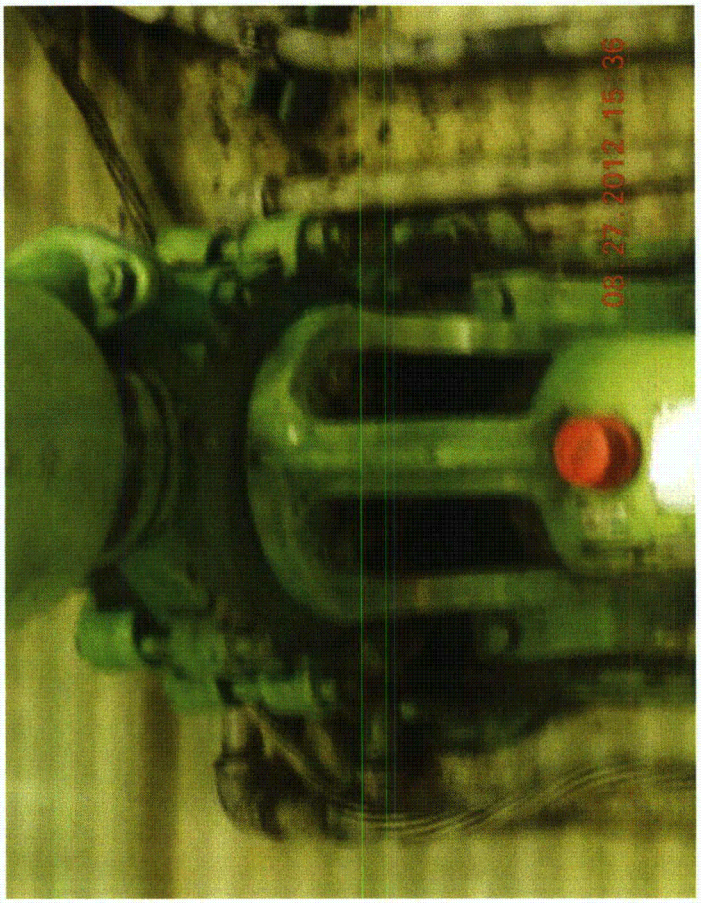
N/A

Evaluated by: James Wiggin Date: 9/17/2012

9/17/2012

Equipment ID: 0DP060





Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. 0DT40 Equip. Class[12] (21) Tanks or Heat Exchangers (Vertical)

Equipment Description *E4 Diesel Generator Fuel Oil Day Tank*

Location: Bldg. *Diesel Generator Building* Floor El. *127* Room, Area *D/G-9*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☑ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐

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.) Y☑ N☐ U☐ N/A☐

   CONFIGURATION MATCHES DWG 1905763, REV. 7

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☑ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. 0DT40 Equip. Class[12] (21) Tanks or Heat Exchangers (Vertical)

Equipment Description *E4 Diesel Generator Fuel Oil Day Tank*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐

   NO SOFT TARGETS

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☑ N☐ U☐

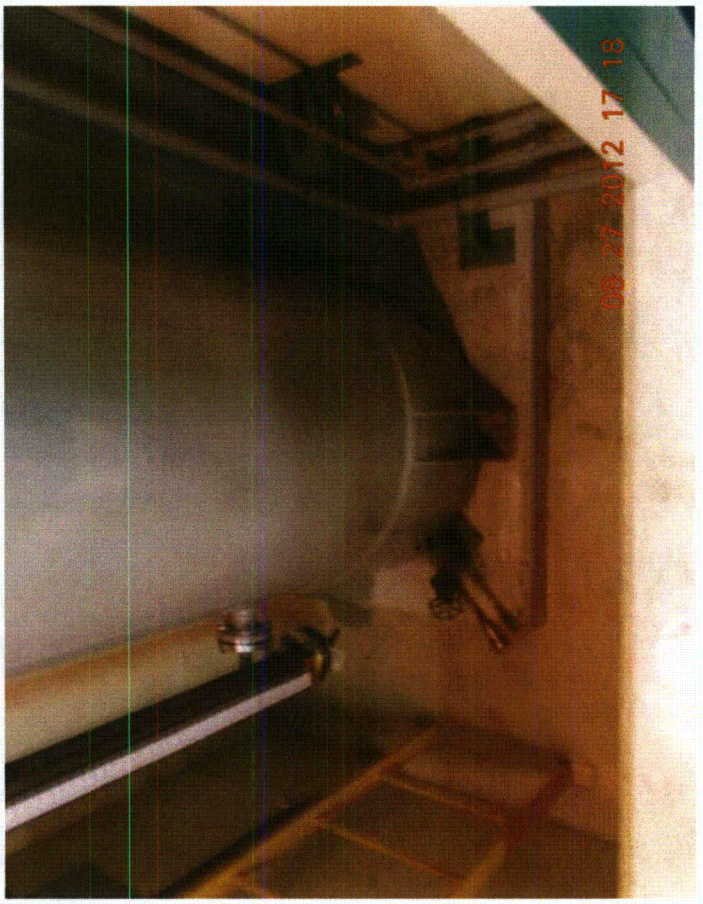
Comments (Additional pages may be added as necessary)

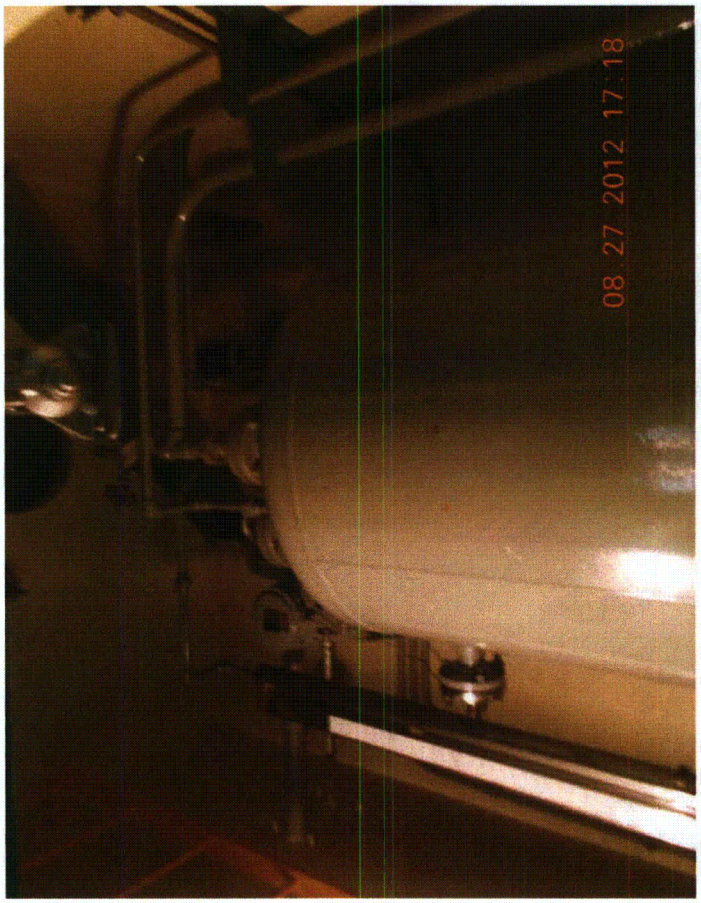
N/A

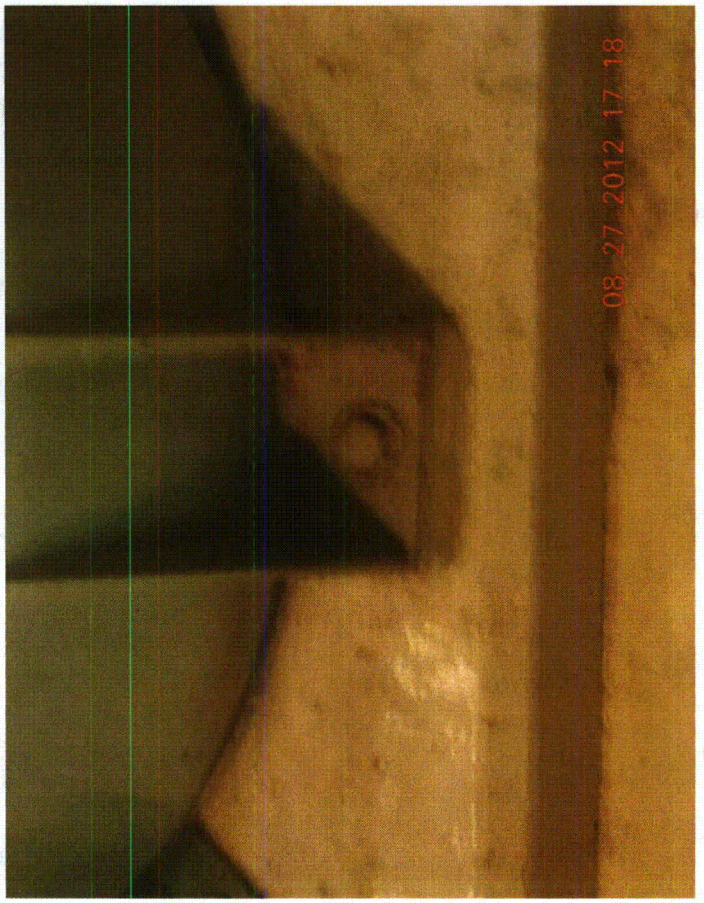
Evaluated by: James Wiggin Date: 8/28/2012

K. [illegible] 8/28/2012

Equipment ID: 0DT040







Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. ~~0DV091~~ 0DV064 Equip. Class[12] (09) Fans

Equipment Description *D/G Building Vent Supply Fan*

Location: Bldg. *Diesel Generator Building* Floor El. *151* Room, Area *D/G-20*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

   Verified per dwg 6280-S-980-0 Rev 0 (Sheet 1 of 1)

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

   Mild surface oxidation is acceptable

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

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.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. ~~0DV091~~ 0DV064 BMF 9/13/12 Equip. Class[12] (09) Fans

Equipment Description *D/G Building Vent Supply Fan*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft targets identified

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   No HI concerns

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

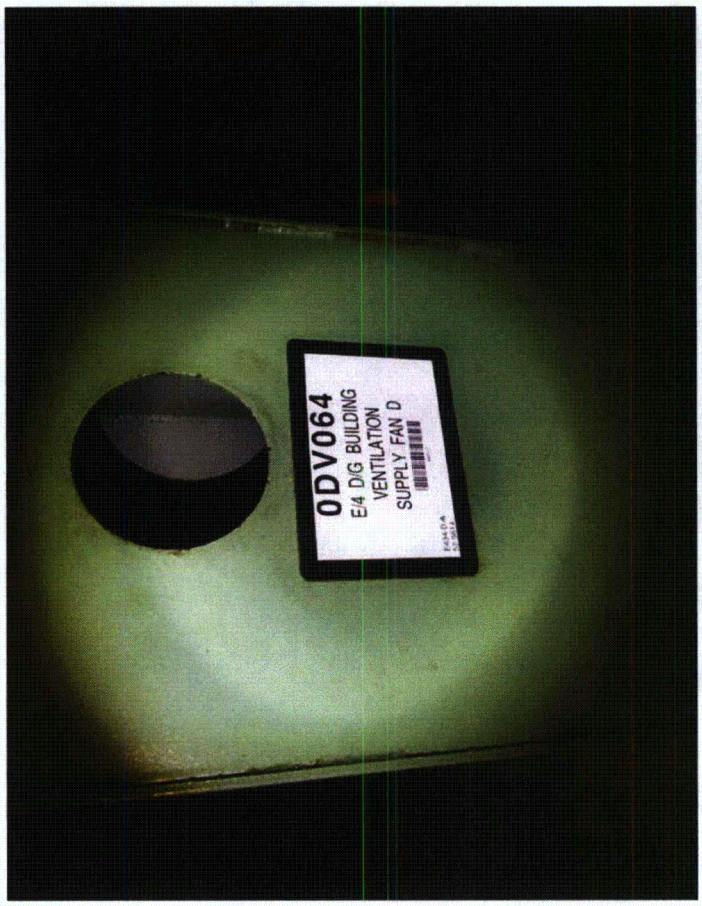
Other Adverse Conditions

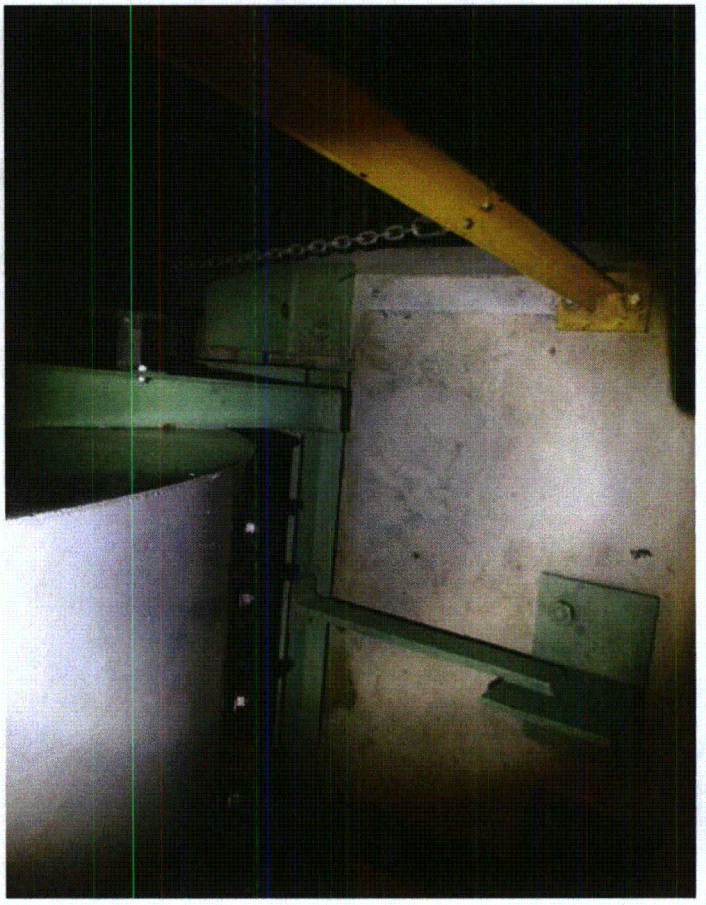
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

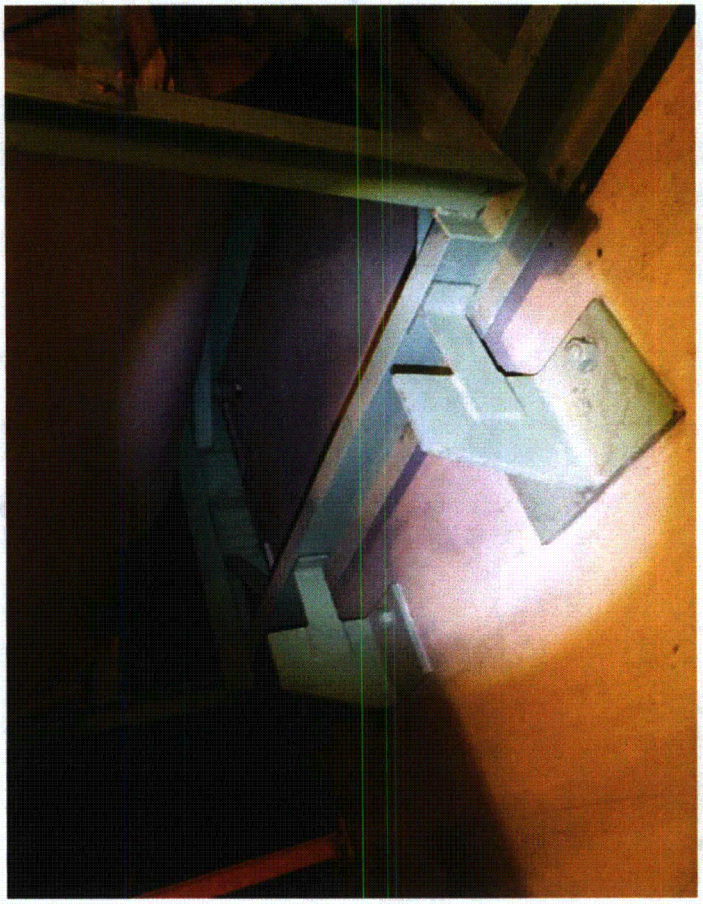
Comments (Additional pages may be added as necessary)

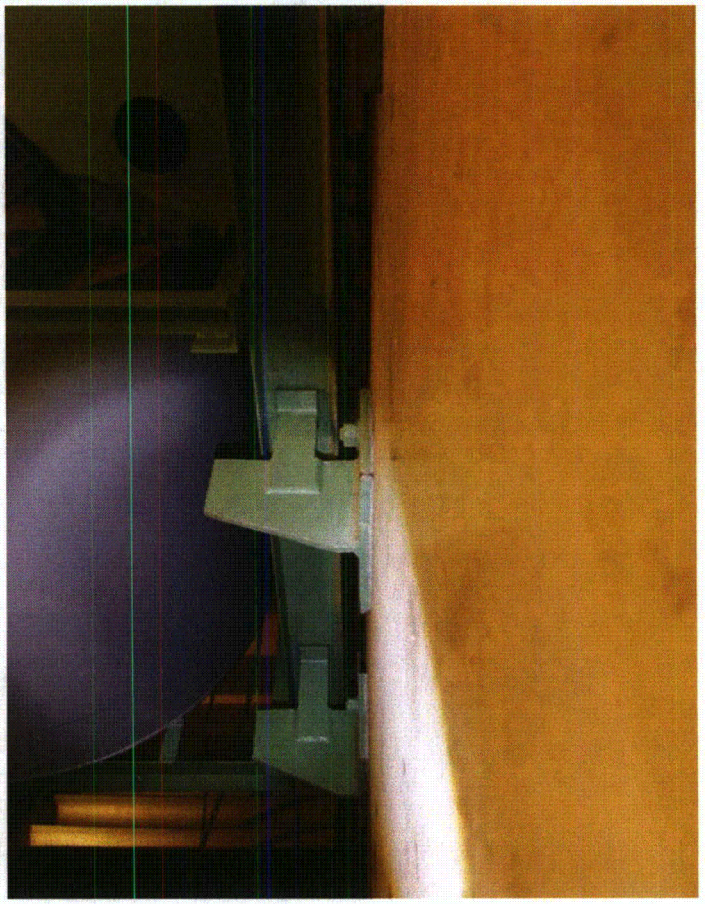
Evaluated by: _____ Date: 9/12/12

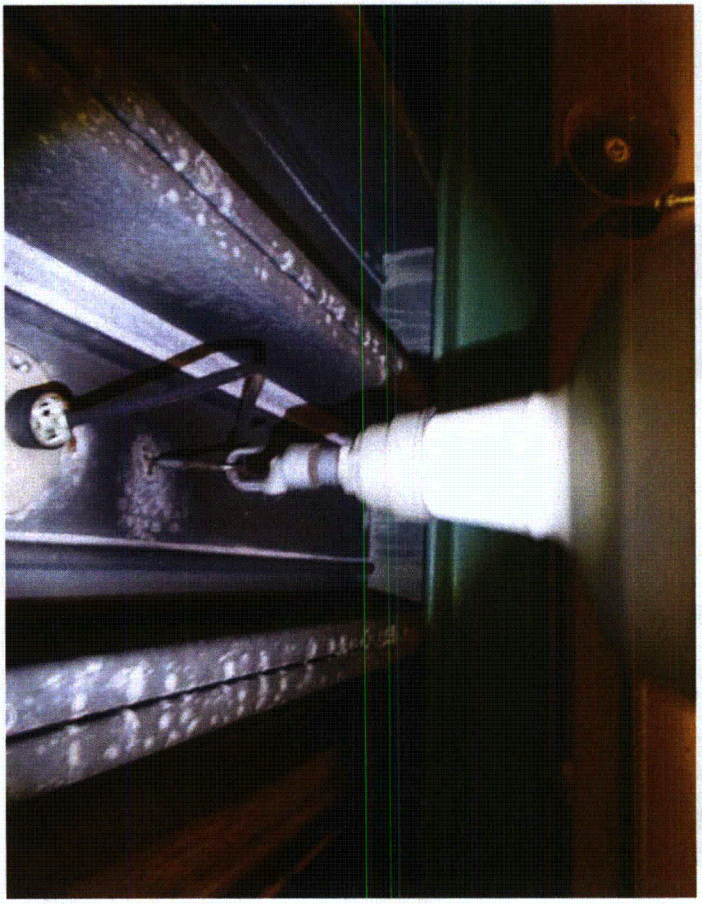
_____ 9/13/12

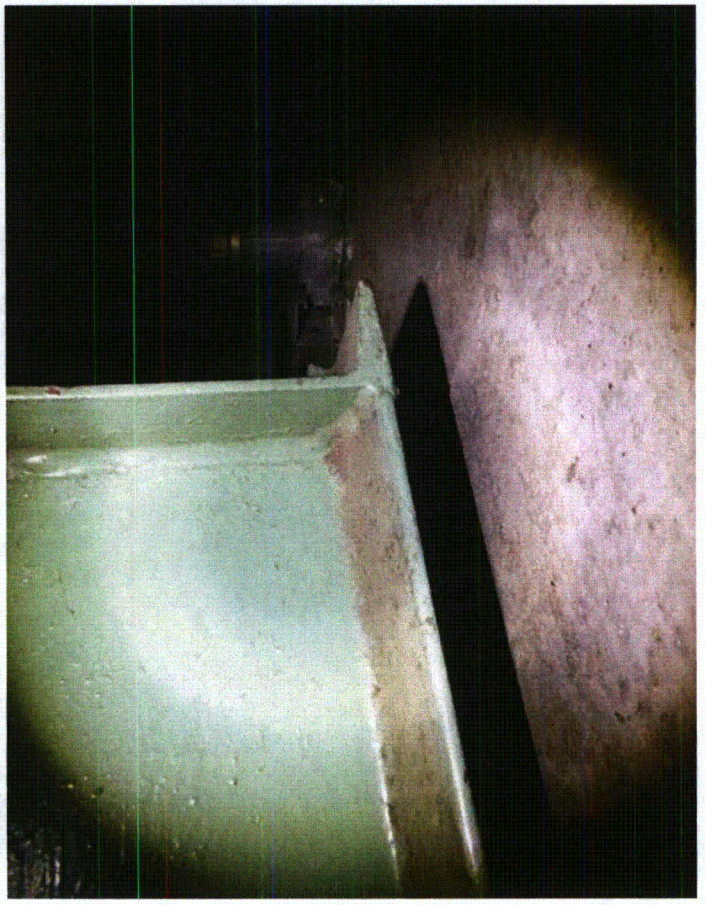

0DV064
E4 D/G BUILDING
VENTILATION
SUPPLY FAN D

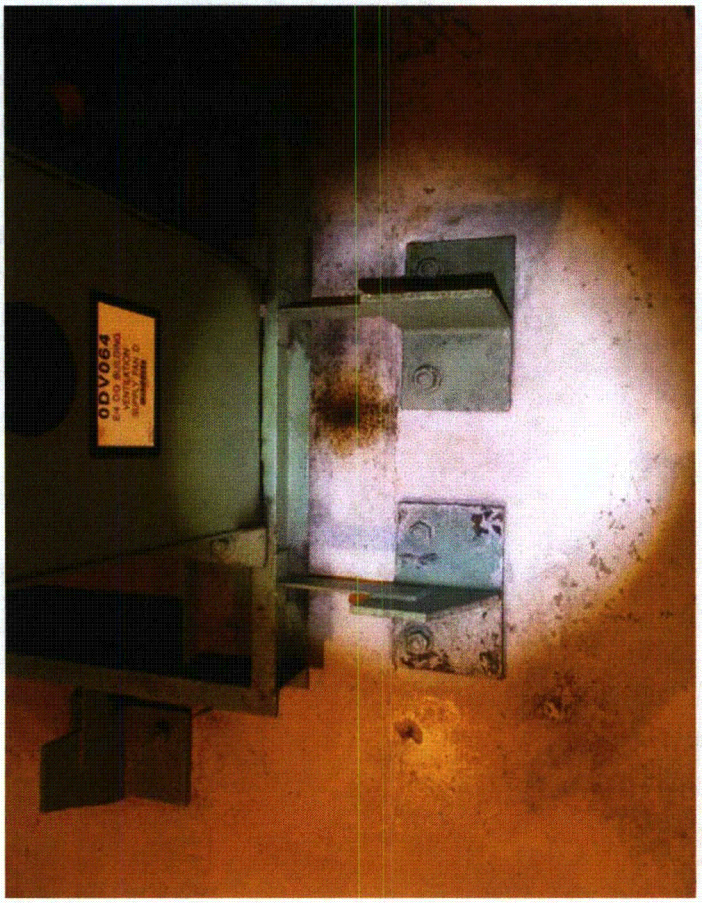


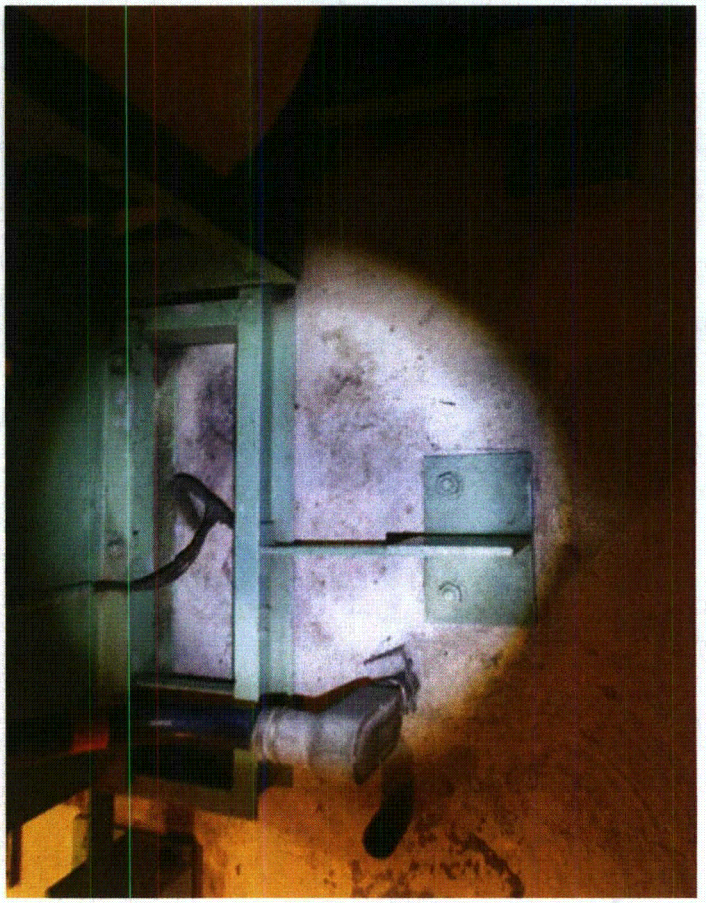


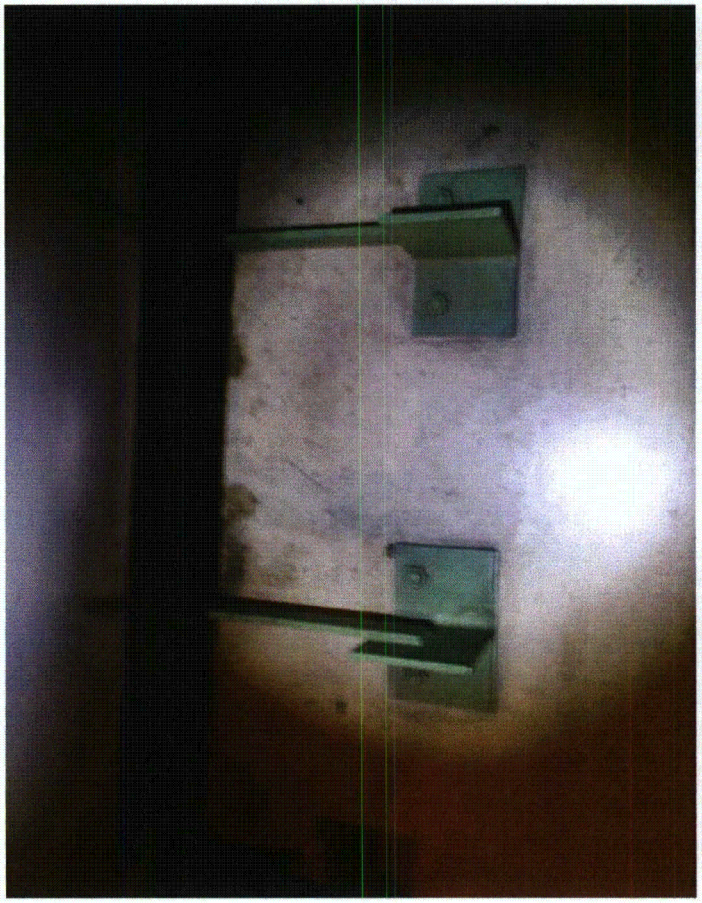


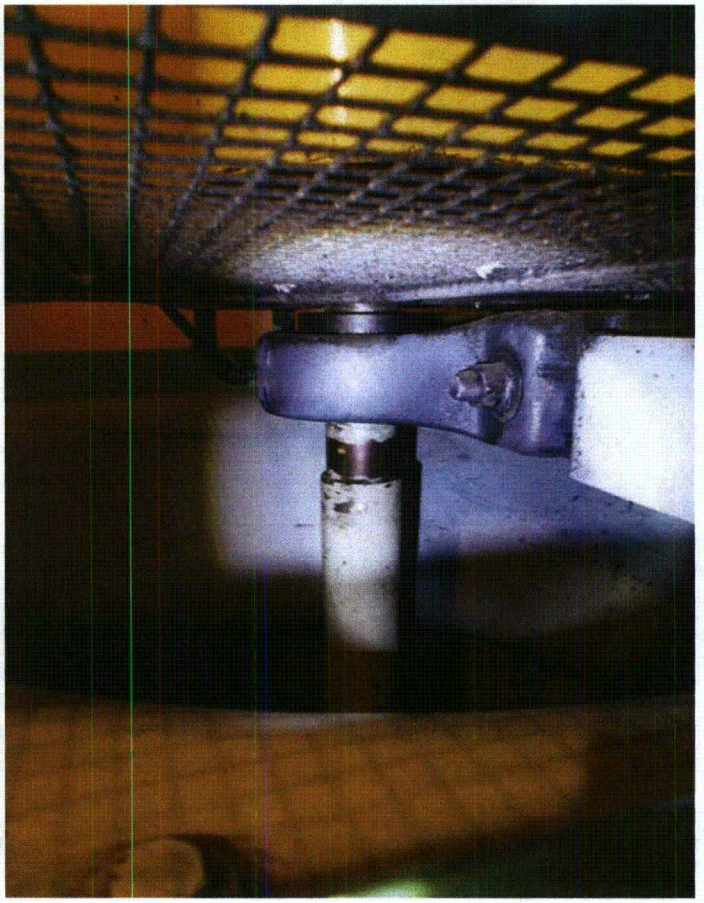





0DV064







Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. 0HT95 Equip. Class[12] (21) Tanks or Heat Exchangers (Vertical)

Equipment Description *E4 Diesel Generator Starting Air Reservoir*

Location: Bldg. *Diesel Generator Building* Floor El. *127* Room, Area *D/G-9*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐

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.) Y☐ N☒ U☐ N/A☐

match

• Does not Dwg. # 6280-E5-11-6 (Rev. 6); as-built configuration has 1½" anchor bolts instead of specified ¾" anchor bolts. Judged acceptable for anticipated seismic loads per attached evaluation.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

• DISCREPANCY WAS EVALUATED PER NCR P908148 AND FOUND TO BE ACCEPTABLE. KC 11/5/12

GM 11/5/2012

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. 0HT95 Equip. Class[12] (21) Tanks or Heat Exchangers (Vertical)

Equipment Description *E4 Diesel Generator Starting Air Reservoir*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐

   NO SOFT TARGETS

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐

   FLUORESCENT - TUBES - WITHOUT - CAGES FALLING JUDGED TO BE CREDIBLE BUT NOT SIGNIFICANT

9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☑ N☐ U☐

Comments (Additional pages may be added as necessary)

See attached evaluation

Evaluated by: James Wiggin Date: 9/17/2012

K. G.S 9/17/2012

AIR RECIEVER TANK HOLDOWN BOLTS

DESIGNED AS 3/4" Ø BOLTS

AS FOUND 1/2" Ø BOLTS BASED ON 3/4" HEAD FLAT-TO-FLAT

TENSILE STRESS AREA FOR 3/4" Ø BOLTS = 0.334 in² (CALC 6280-ES-155-1)

" " " " 1/2" Ø BOLTS = 0.1419 in² (COARSE THREAD UNC SERIES http://www.efunda.com/designstandards/screws/screwsunc.cfm ACCESSED 9/13/2012.)

RATIO $\frac{.1419}{.334} = 0.425$

MAX PRINCIPAL STRESS IN 3/4" Ø BOLT = 494 psi (CALC 6280-ES-155-1)

SCALING BY $\frac{1}{0.425} = \frac{1}{0.425} \times 494 \text{ psi} = 1160 \text{ psi}$

PROOF LOAD USED IN CALC IS 52,000 psi

MUCH LOWER THAN ALLOWABLE ∴ OK

CHECK CONCRETE CONNECTION

~~X~~ ASSUMING MIN EMBEDMENT REQUIREMENT FROM GIP IS MET

FOR 1/2" Ø BOLT

PULLOUT MAX = 2.29 kip
SHEAR MAX = 2.38 kip
} GIP TABLE C.2-1

ACTUAL PULLOUT = 141 lb
ACTUAL SHEAR = 253 lb
} CALC 6280-ES-155-1

USING BOLT ~~MATCH~~ TYPE REDUCTION FACTOR FROM GIP FOR UNKNOWN BOLT TYPE

PULLOUT MAX ALLOWED = 2.29 kip × 0.6 = 1.37 kip
SHEAR MAX ALLOWED = 2.38 kip × 0.75 = 1.79 kip

SIGNIFICANT MARGIN AVAILABLE, COMBINED PULLOUT AND SHEAR NOT EVALUATED.

1/2" Ø BOLTS ARE OK FOR THE AIR RECIEVER TANK

Design Home
- Screw Threads
  - Thread System
  - Unified Screw Threads
    - UNC Coarse
    - UNF Fine
    - UNEF Extra Fine
    - Unified Standard Series
    - Tap Drill
  - Constant Pitch Series
  - Metric Screw Threads
- Torque in Bolts
  - Introduction
  - Torque Calculator
- Resources
  - Bibliography

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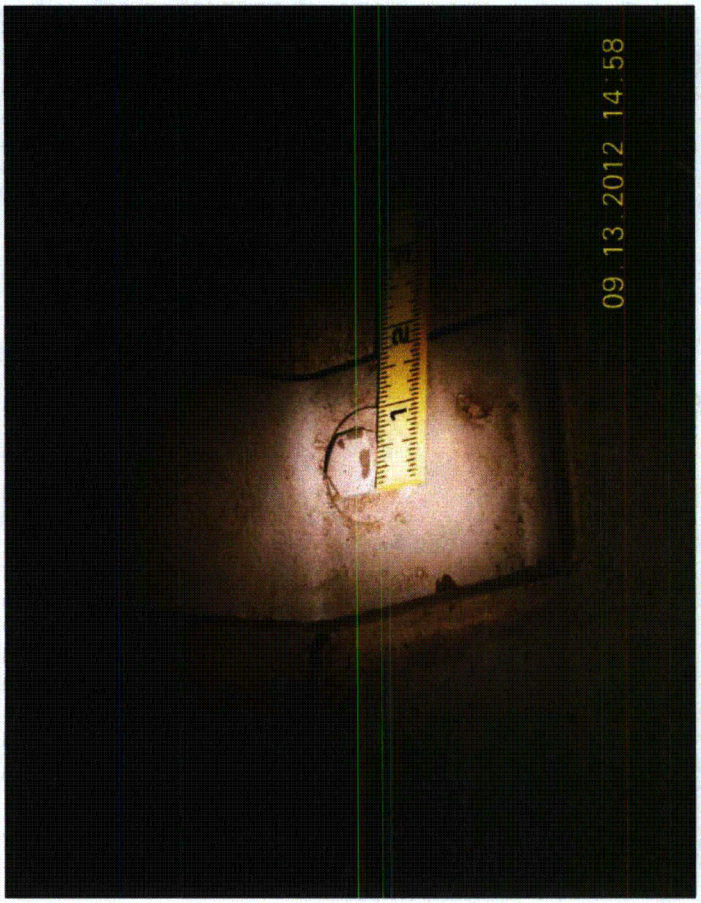
Size	Major Dia	Threads Per Inch	Pitch Dia	Minor Dia External[a]	Minor Dia Internal[b]	Minor Dia Area	Tensile Stress Area
#	inch	tpi	inch	inch	inch	sq inch	sq inch
#1*	0.073	64	0.0629	0.0544	0.0561	0.00218	0.00263
#2	0.086	56	0.0744	0.0648	0.0667	0.0031	0.0037
#3*	0.099	48	0.0855	0.0741	0.0764	0.00406	0.00487
#4	0.112	40	0.0958	0.0822	0.0849	0.00496	0.00604
#5	0.125	40	0.1088	0.0952	0.0979	0.00672	0.00796
#6	0.138	32	0.1177	0.1008	0.1042	0.00745	0.00909
#8	0.164	32	0.1437	0.1268	0.1302	0.01196	0.014
#10	0.19	24	0.1629	0.1404	0.1449	0.0145	0.0175
#12*	0.216	24	0.1889	0.1664	0.1709	0.0206	0.0242
¼	0.25	20	0.2175	0.1905	0.1959	0.0269	0.0318
5/16	0.3125	18	0.2764	0.2464	0.2524	0.0454	0.0524
3/8	0.375	16	0.3344	0.3005	0.3073	0.0678	0.0775
7/16	0.4375	14	0.3911	0.3525	0.3602	0.0933	0.1063
½	0.5	13	0.45	0.4084	0.4167	0.1257	0.1419
9/16	0.5625	12	0.5084	0.4633	0.4723	0.162	0.182
5/8	0.625	11	0.566	0.5168	0.5266	0.202	0.226
¾	0.75	10	0.685	0.6309	0.6417	0.302	0.334
7/8	0.875	9	0.8028	0.7427	0.7547	0.419	0.462
1	1	8	0.9188	0.8512	0.8647	0.551	0.606
1-1/8	1.125	7	1.0322	0.9549	0.9704	0.693	0.763
1¼	1.25	7	1.1572	1.0799	1.0954	0.89	0.969
1-							

Coarse Thread UNC Series

3/8	1.375	6	1.2667	1.1766	1.1946	1.054	1.155
1½	1.5	6	1.3917	1.3016	1.3196	1.294	1.405
1¾	1.75	5	1.6201	1.5119	1.5335	1.74	1.9
2	2	4.5	1.8557	1.7353	1.7594	2.3	2.5
2¼	2.25	4.5	2.1057	1.9853	2.0094	3.02	3.25
2½	2.5	4	2.3376	2.2023	2.2294	3.72	4
2¾	2.75	4	2.5876	2.4523	2.4794	4.62	4.93
3	3	4	2.8376	2.7023	2.7294	5.62	5.97
3¼	3.25	4	3.0876	2.9523	2.9794	6.72	7.1
3½	3.5	4	3.3376	3.2023	3.2294	7.92	8.33
3¾	3.75	4	3.5876	3.4523	3.4794	9.21	9.66
4	4	4	3.8376	3.7023	3.7294	10.61	11.08
#	Inch	tpi	Inch	Inch	Inch	Sq. Inch	Sq. Inch
Size	Major Dia	Threads Per Inch	Pitch Dia	Minor Dia External[a]	Minor Dia Internal[b]	Minor Dia Area	Tensile Stress Area
* Secondary Size		[a]Form for UNR thread			[b]Basic Minor Diameter		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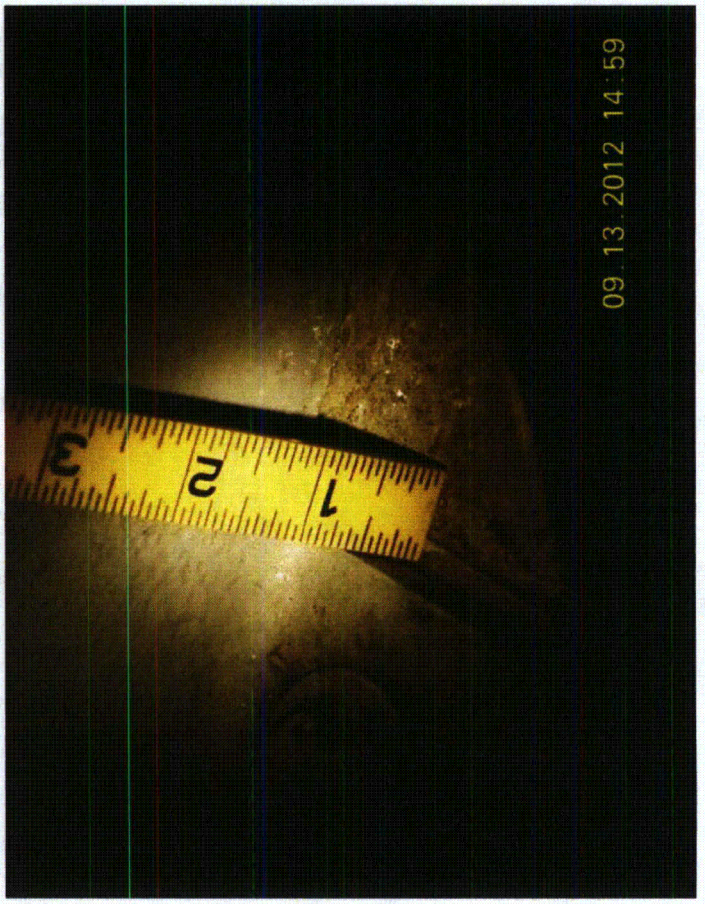
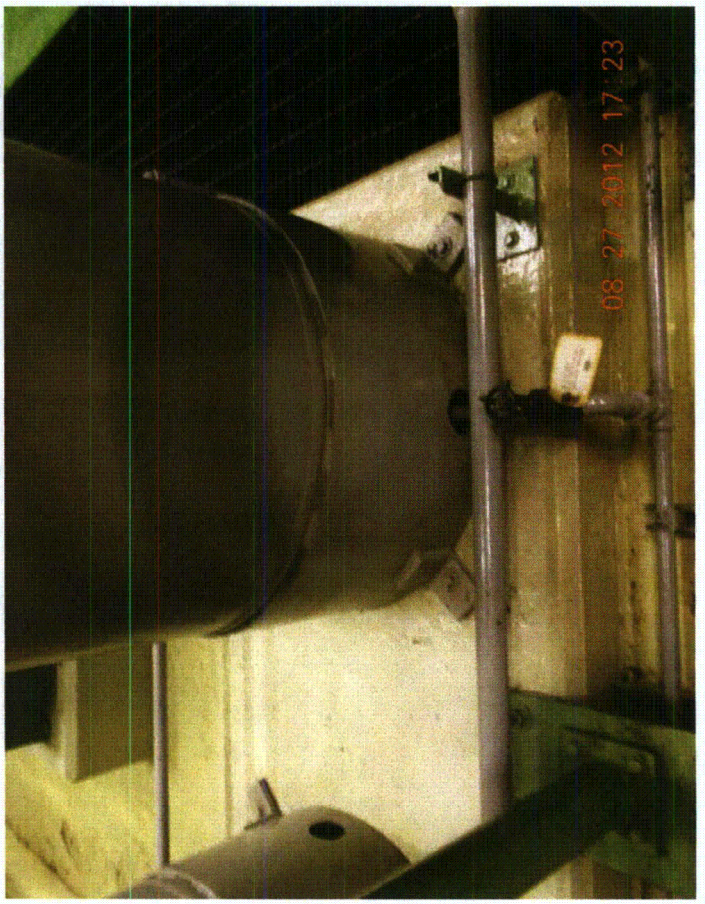

09.13.2012 14:59


0HT095
E4 D/G STARTING
AIR RESERVOIR
(AUTOMATIC START)
08.27.2012 17:22


08.27.2012 17:23

Equipment ID: 0HT095



Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. A0-33-0241D Equip. Class[12] (07) Fluid (Air/Hyd) Valves

Equipment Description *ESW Outlet Block Valve from Diesel Generator E4 Coolers*

Location: Bldg. *Diesel Generator Building* Floor El. *127* Room, Area *D/G-9*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐
   ANCHORED TO STRUCTURAL STEEL WHICH IS ANCHORED TO CRACK-FREE CONCRETE

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.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   - See attached evaluation for acceptance of independent anchorage for air operator

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. A0-33-0241D Equip. Class[12] (07) Fluid (Air/Hyd) Valves

Equipment Description *ESW Outlet Block Valve from Diesel Generator E4 Coolers*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐
   NO SOFT TARGETS

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐
   ~~ALONE~~ NO 8/24/12

9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiegum Date: 9/24/2012

JC AG 9/24/2012

AO-33-0241D

Purpose

The lateral stiffnesses of the vertical support (two structural angles) attached to the operator of Air-Operated Valve AO-0-33-0241D and the pipe support (square structural tubing) attached downstream of the valve at the pipe elbow are calculated. The lateral stiffnesses of the supports are compared to help judge whether the valve being supported at two different locations (the diesel room wall and the top of the diesel engine base frame) could potentially cause damage to the valve during a seismic event.

Data

$h_{angle} := 7ft$ — Height of angle support above base frame top surface (from walkdown)

$L_{angle} := 3in$ — Length of angle leg (from walkdown)

$t_{angle} := 0.25in$ — Thickness of angle (from walkdown)

$L_{box.1} := 6in$ — Approximate width of horizontal section of pipe support (square cross-section) (from walkdown)

$L_{box.2} := 4in$ — Approximate width of vertical section of pipe support (square cross-section) (from walkdown)

$t_{box} := 0.25in$ — Thickness of pipe supports (square cross-section). This is a conservative estimate.

$h_{box.1} := 3.5ft$ — Length of horizontal section of pipe suppor (from walkdown)

$h_{box.2} := 2ft$ — Length of vertical section of pipe support (from walkdown)

$I_{angle} := 1.23in^4$ — 3 x 3 x 1/4 Angle area moment of inertia; AISC Shapes Database v14.0

$I_{box.1} := 30.3in^4$ — 6 x 6 x 1/4 Square tubing area moment of inertia; AISC Shapes Database v14.0 Historic

$I_{box.2} := 8.22in^4$ — 4 x 4 x 1/4 Square tubing area moment of inertia; AISC Shapes Database v14.0 Historic

$E_{st} := 29 \times 10^6 psi$ — Elastic modulus of carbon steel, typical value.

Stiffness Calculations

$$k_{angle} := \frac{3 \cdot E_{st} \cdot I_{angle}}{h_{angle}^3}$$

$$k_{angle} = 180.545 \frac{lbf}{in}$$

A0-33-0241D

$$k_{box.1} := \frac{3 \cdot E_{st} \cdot I_{box.1}}{h_{box.1}^{3}} \qquad k_{box.1} = 3.558 \times 10^{4} \frac{lbf}{in}$$

$$k_{box.2} := \frac{3 \cdot E_{st} \cdot I_{box.2}}{h_{box.2}^{3}} \qquad k_{box.2} = 5.173 \times 10^{4} \frac{lbf}{in}$$

$$k_{box} := \frac{k_{box.1} \cdot k_{box.2}}{k_{box.1} + k_{box.2}} \qquad k_{box} = 2.108 \times 10^{4} \frac{lbf}{in}$$

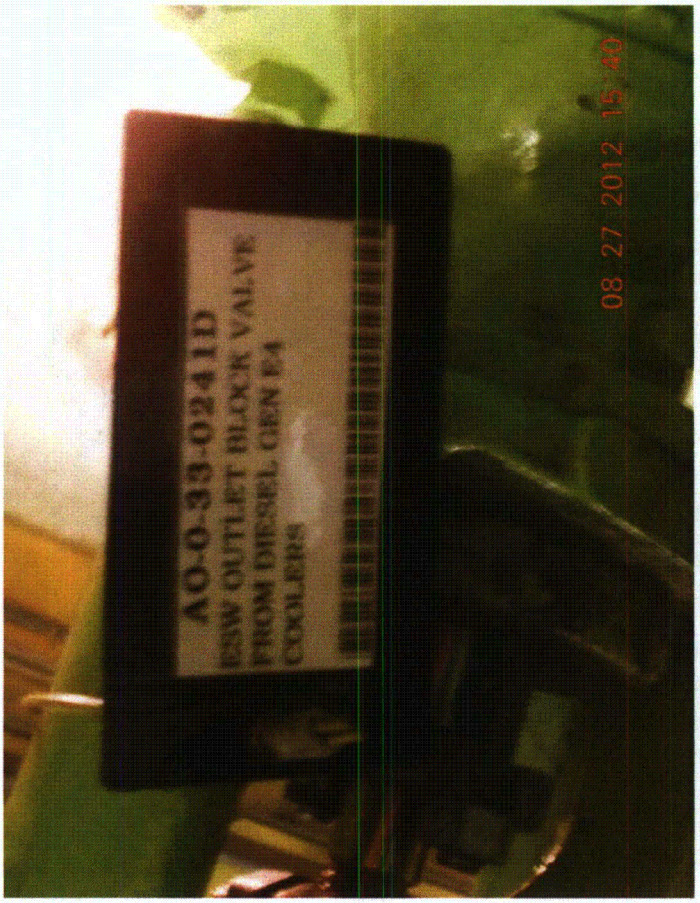
$$\frac{k_{box}}{2k_{angle}} = 58$$

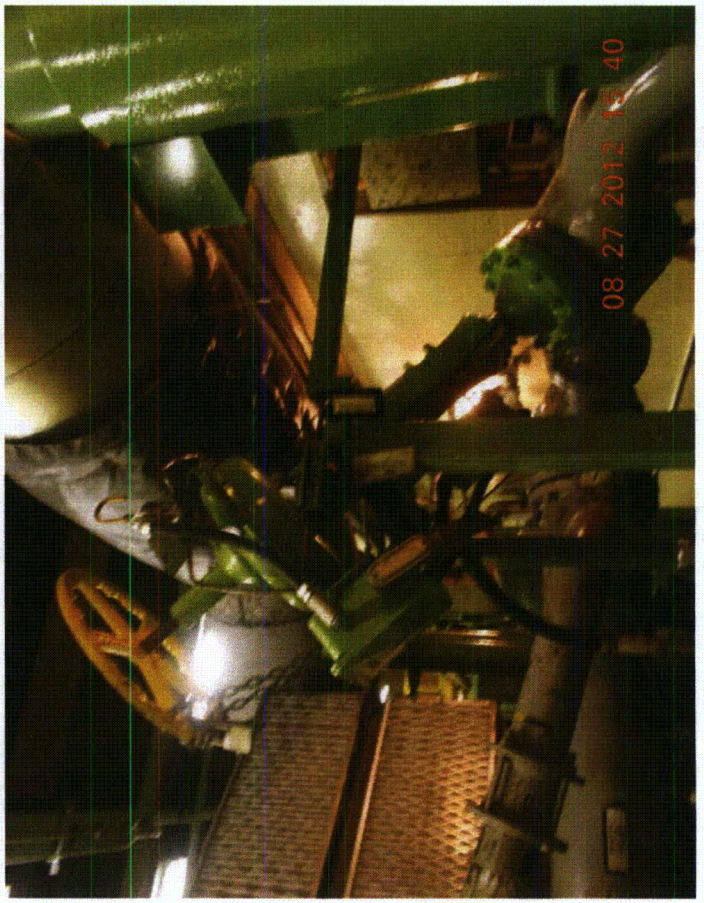
Note that angle stiffness is multiplied by two since there are two supports.

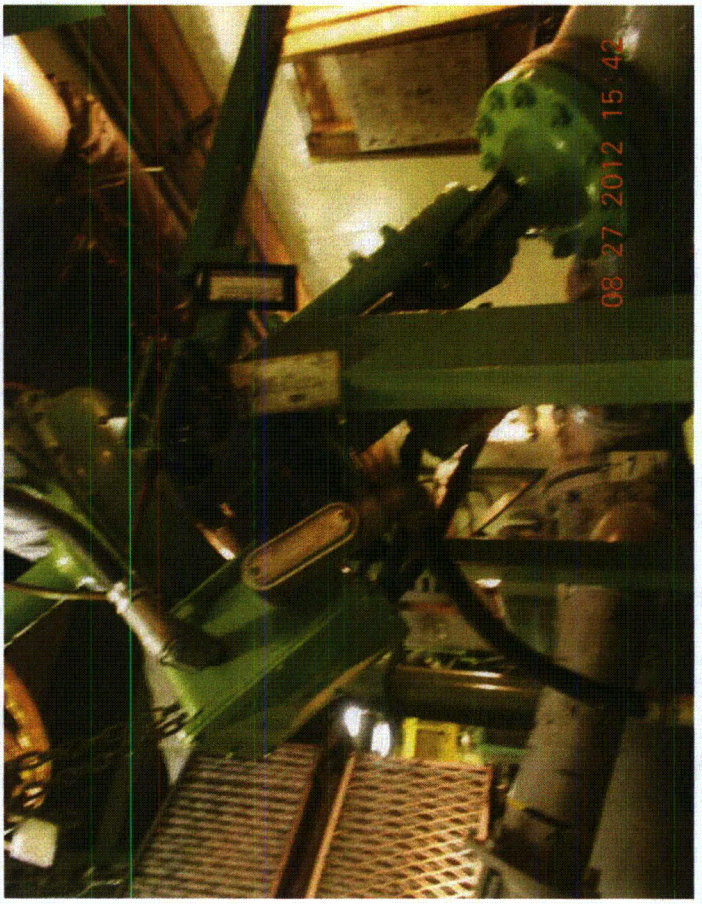
Conclusions

The lateral stiffness of the pipe support is an order of magnitude stiffer than the support at the valve operator. Thus, if there is any differential motion between the wall of the diesel room and the diesel engine base frame during a seismic event, the support at the valve operator will easily displace without imparting significant load to the valve operator. Additionally, a structural joint was not observed between the floor of the diesel room and the wall of the diesel room so any differential displacement between these two locations will be very small. The diesel engine baseframe is securely attached to the floor, and the base frame is very stiff, so the top of the base frame (where the operator support is anchored) should displace with the floor.

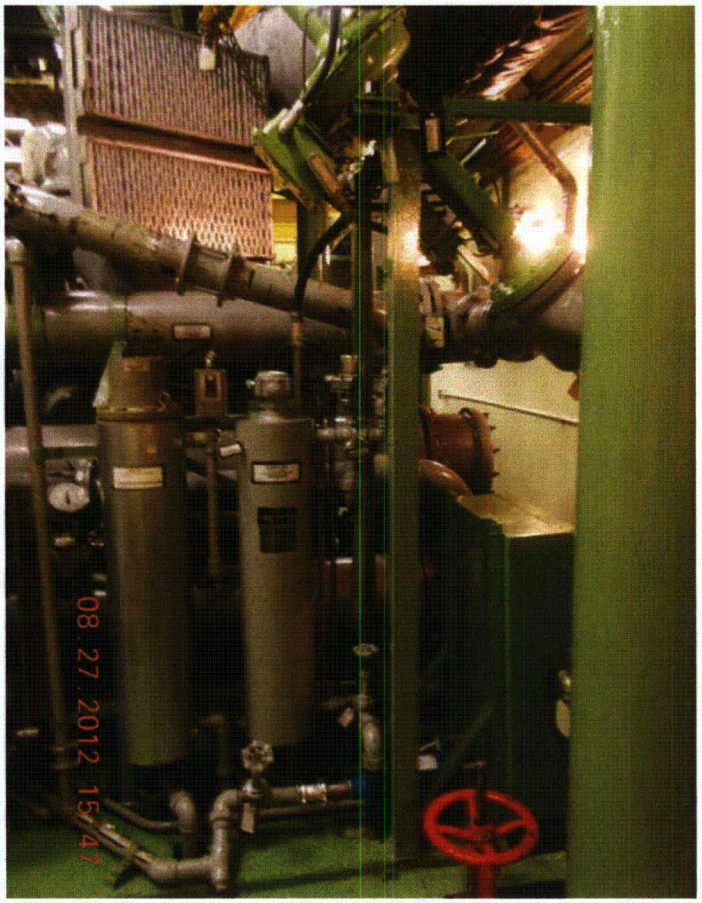
Equipment ID: AO-0-33-0241D







Equipment ID: AO-0-33-0241D



Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. ~~MO-33-0498~~ MO-0-33-0498 BMF 8/22/12 Equip. Class[12] (08a) Motor Operated Valves

Equipment Description *ESW Return to Discharge Pond*

Location: Bldg. *Diesel Generator Building* Floor El. ~~121~~ 127 MO 11/8/12 Room, Area *D/G-2*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☒ MO 8/27/12

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☒ MO 8/27/12

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☒ MO 8/27/12
   Valve is line mounted.

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.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. MO-33-0498 Equip. Class[12] (08a) Motor Operated Valves

Equipment Description *ESW Return to Discharge Pond*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   no soft targets.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   - Overhead Cardox lines have threaded connections. fluid is carbon dioxide and not a concern.
   - there is no concern if light bulbs fall during seismic event. - No ceiling tiles or masonry block.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

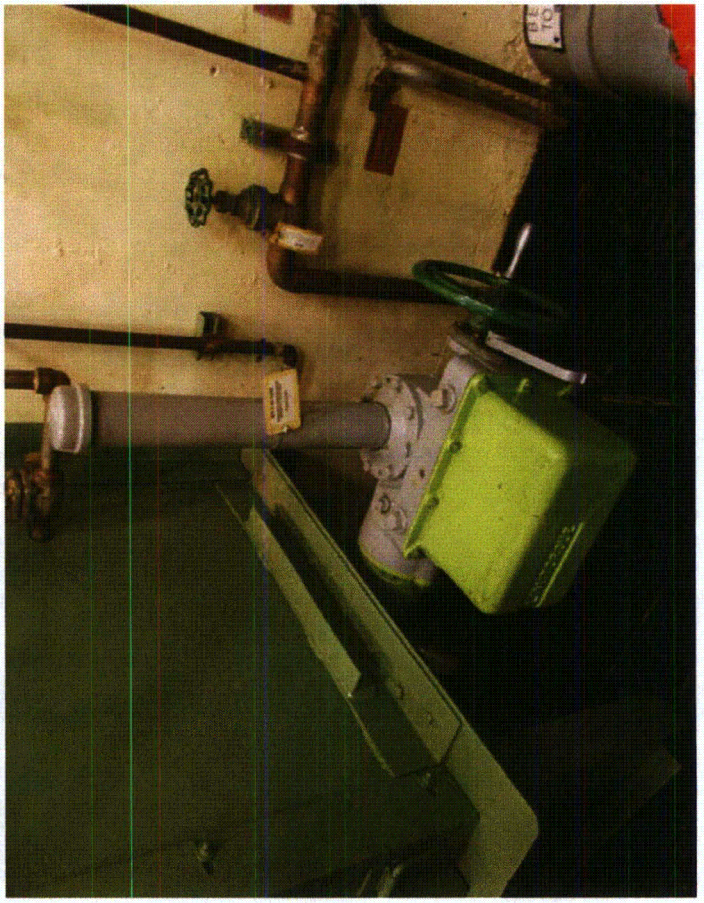
Comments (Additional pages may be added as necessary)

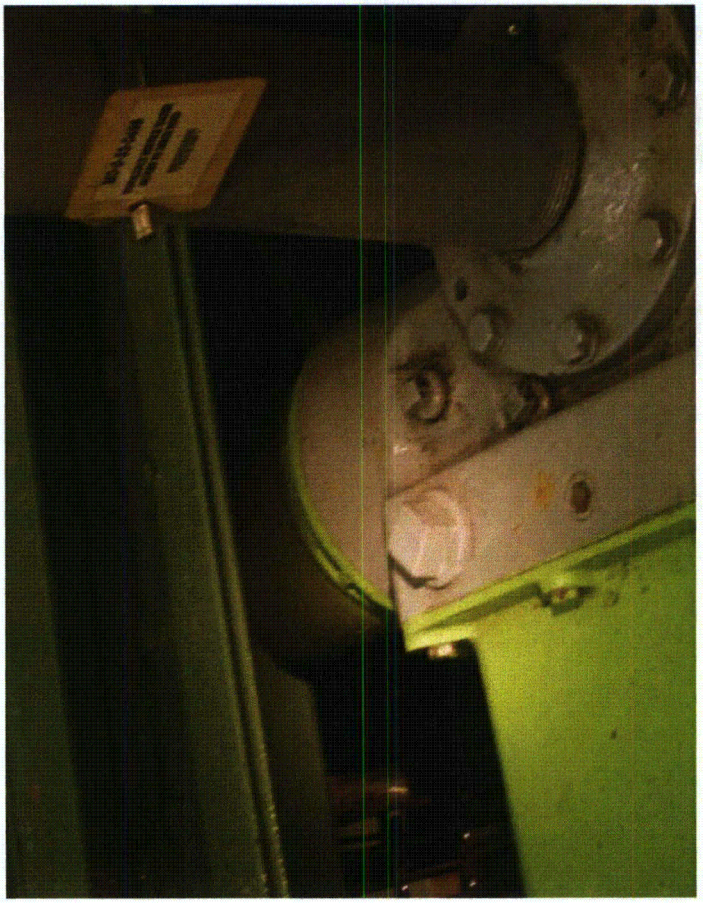
IPEEE - An approximate 1" radial gap is present between radiation element and MOV motor and appears to be adequate.

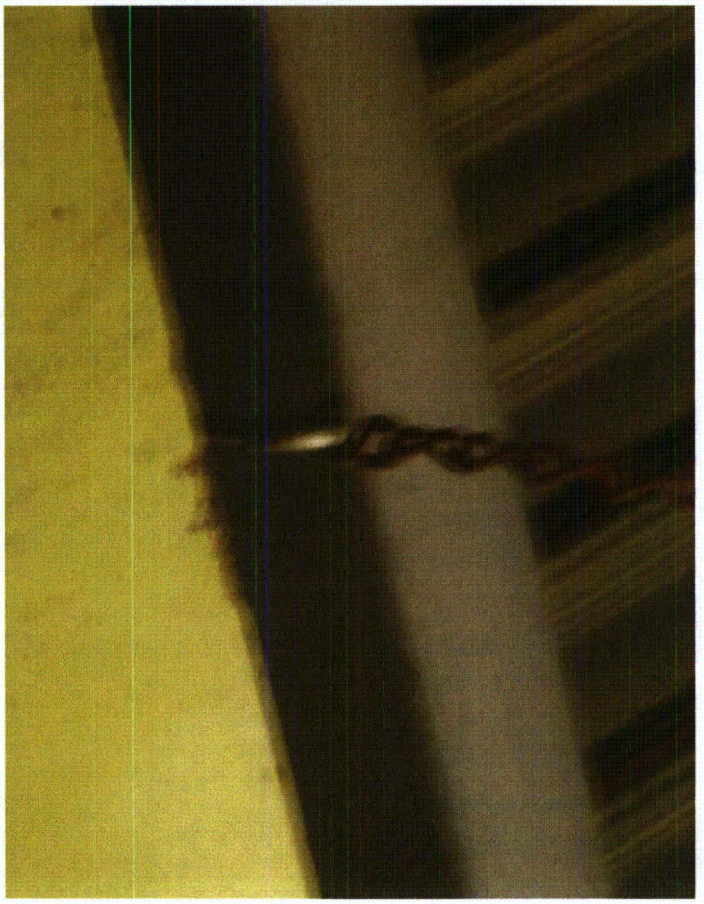
Evaluated by: M. Ojhbaei Date: 8/27/12

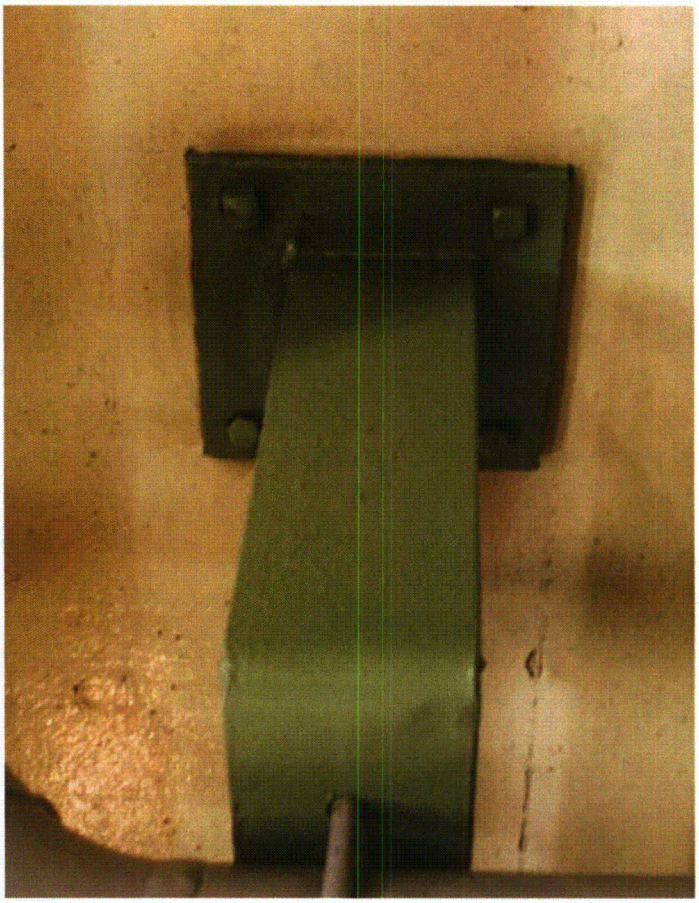
Ben Fry 8/29/12


MO-0-33-0498
EMERGENCY SERVICE WATER
RETURN TO DISCH POND









Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. MO-48-0501A Equip. Class[12] (08a) Motor Operated Valves

Equipment Description *ESW A Inlet to ECT Reservoir*

Location: Bldg. *Emergency Cooling Towers* Floor El. *114* Room, Area *ECT-1*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Line mounted component

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

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.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. MO-48-0501A Equip. Class[12] (08a) Motor Operated Valves

Equipment Description *ESW A Inlet to ECT Reservoir*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft targets

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Falling lightbulbs not ~~likely~~ credible BMF 8/28/12 to cause damage to equipment. Lighting properly secured with closed S-hooks.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

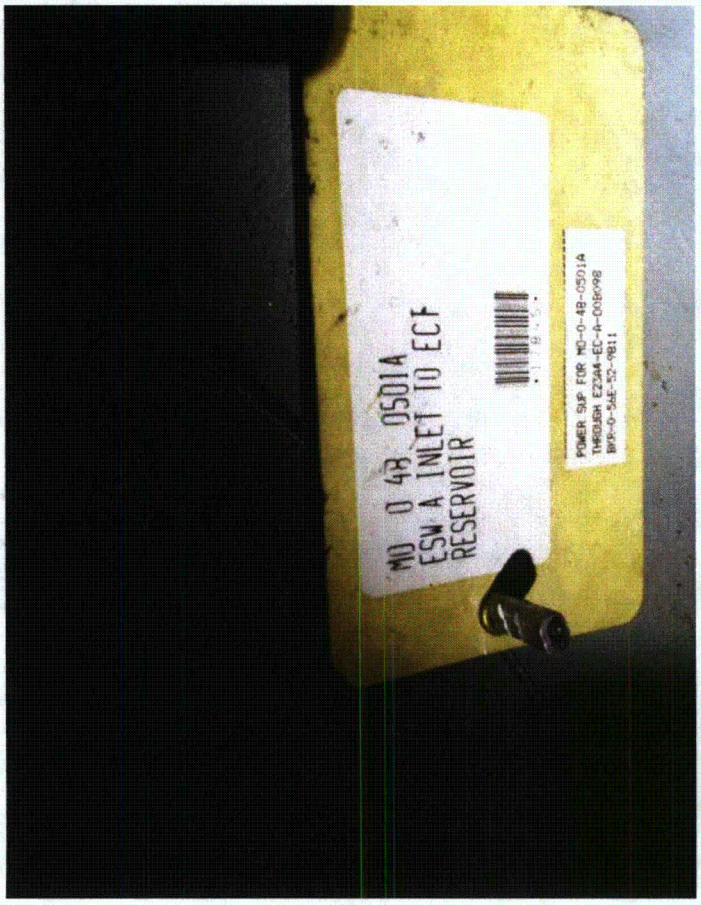
Other Adverse Conditions

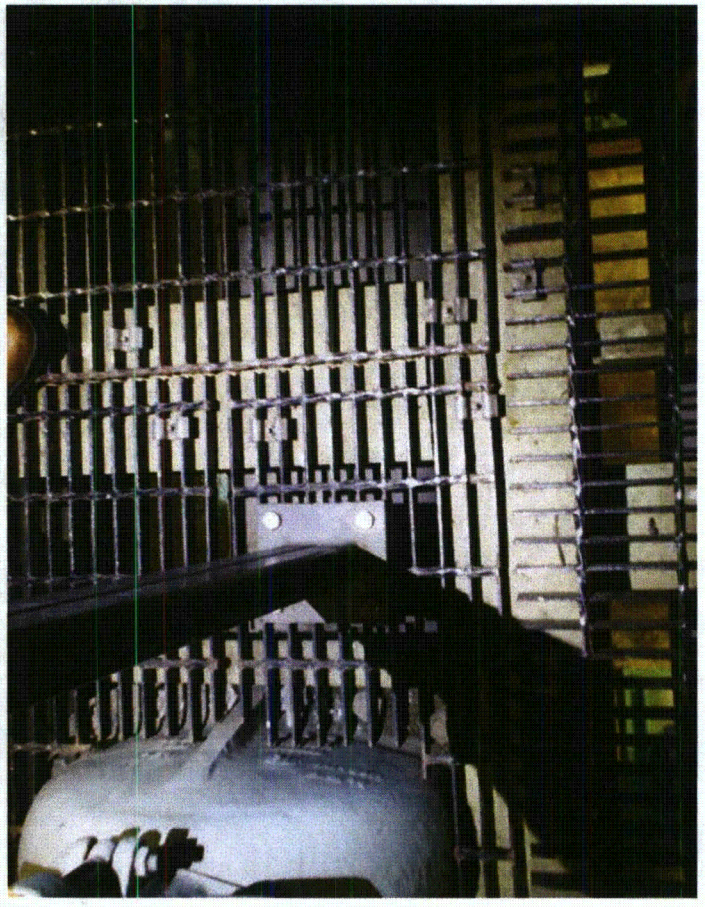
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

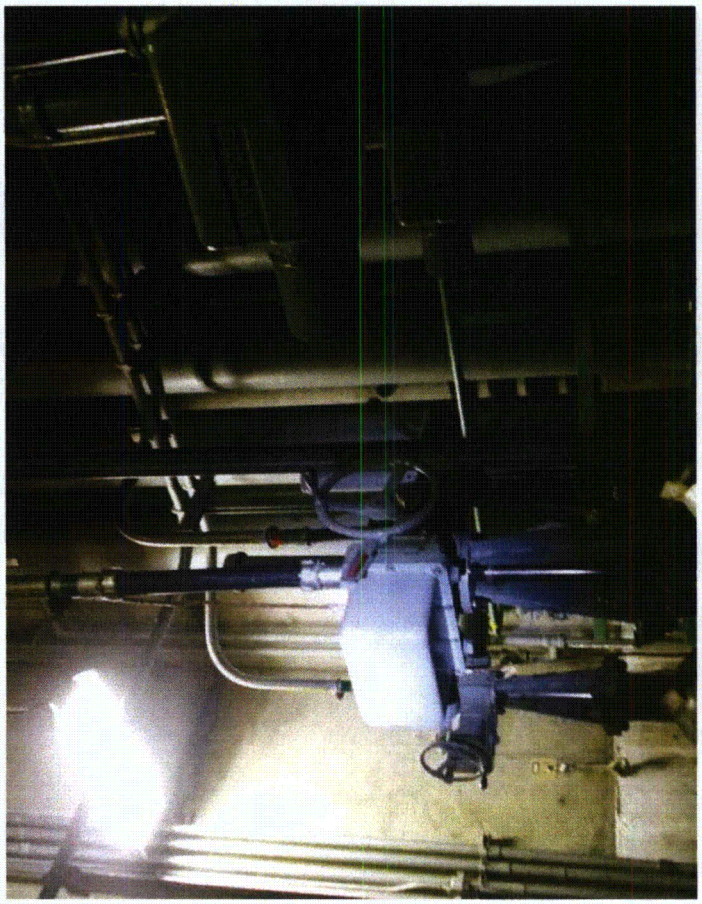
Comments (Additional pages may be added as necessary)

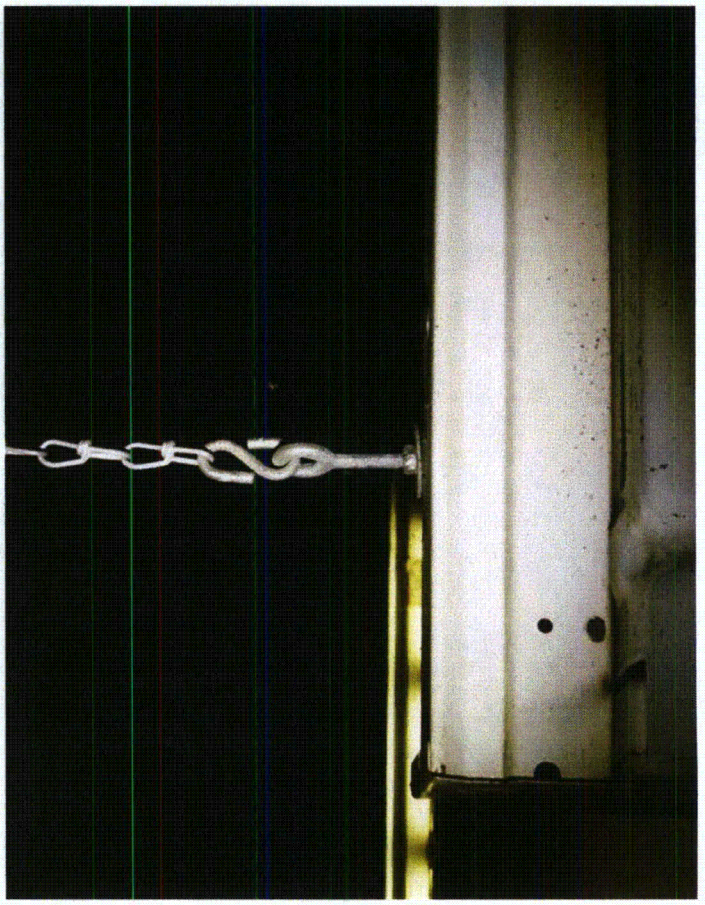
Evaluated by: [signature] Date: 8/28/12

[signature] 8/28/12


MO 0 48 0501A
ESW A INLET TO ECF
RESERVOIR
POWER SUP FOR MO-0-48-0501A
THROUGH E23A4-EC-A-00B498
BPS-0-54E-52-7811







Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. ~~PO-00272-1~~ PO-0-40F-00272-01 MD 10/23/12 ~~2 KPD 11/27/12~~ 1 MD 10/31/12 Equip. Class[12] (10) Air Handlers

Equipment Description *Master for E/ EDG Building Vent Supply Fan Outside Air Damper*

Location: Bldg. *Diesel Generator Building* Floor El. *151* Room, Area *D/G-19*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐

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.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. ~~PO-00276-1~~ PO-0-40F-00272-01 MO 10/23/12 ~~2 VFB 87278~~ 1 MO 10/31/12 Equip. Class[12] (10) Air Handlers

Equipment Description *Master for E~~/~~ EDG Building Vent Supply Fan Outside Air Damper*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐

   NO SOFT TARGETS

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐

   NO OVERHEAD EQUIPMENT

9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☑ N☐ U☐

    CLOSE SPACING BETWEEN HYDRAULIC ACTUATOR AND SUPPORT PLATE COULD RESULT IN RATTLE, BUT WILL NOT AFFECT SAFETY FUNCTION

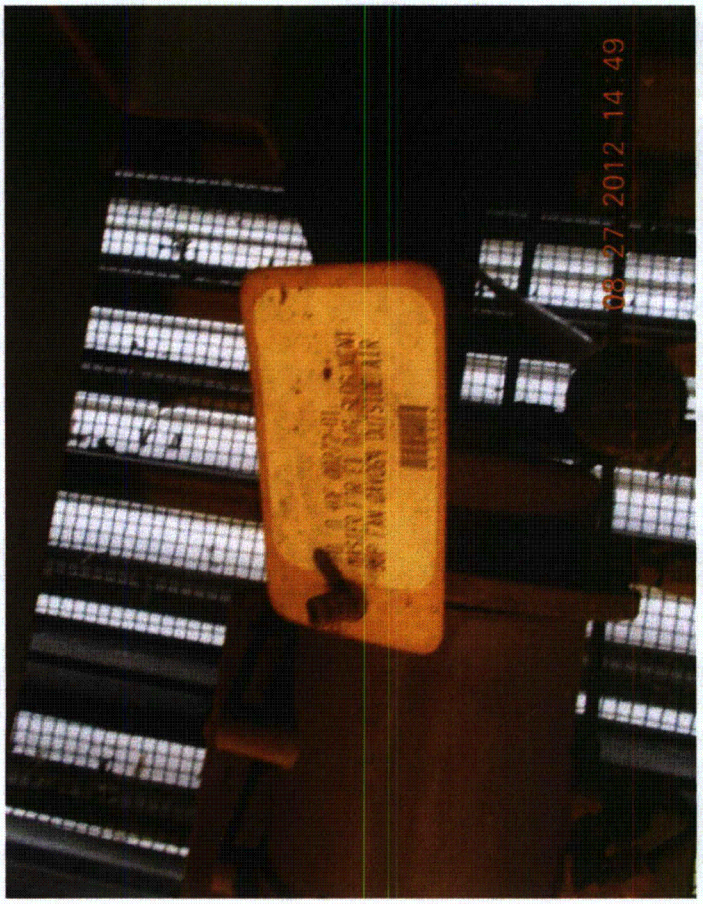
Comments (Additional pages may be added as necessary)

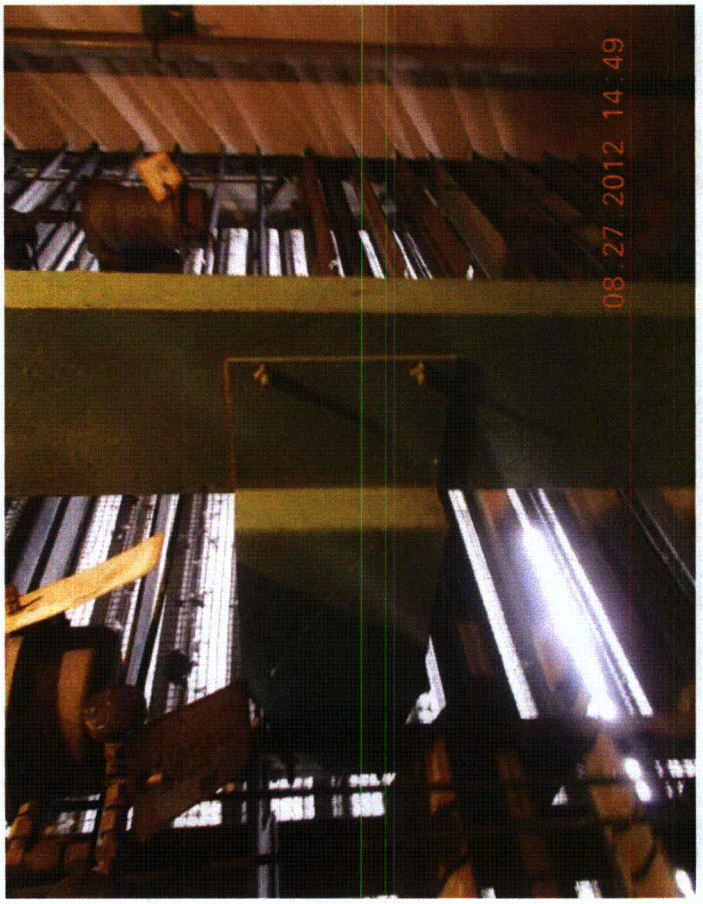
N/A

Evaluated by: James Wiggins Date: 9/17/2012

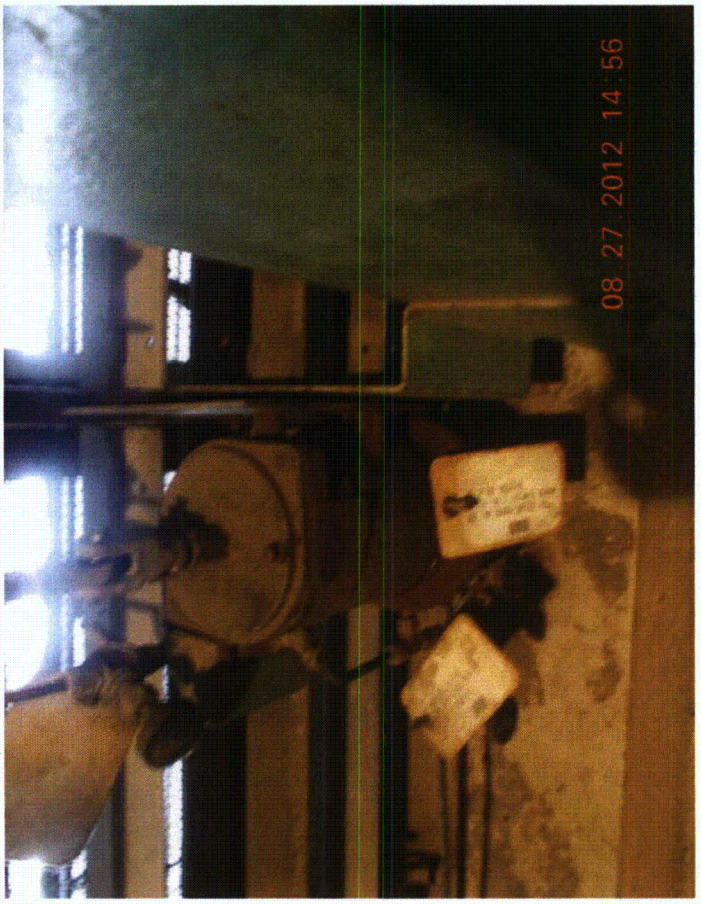
K Gt 9/17/2012

Equipment ID: PO-0-40F-00272-01





Equipment ID: PO-0-40F-00272-01



Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. ~~PO-00275-2~~ PO-0-40F-00272-02 MO 10/23/12 ~~2 VFB 9/24/12~~ 1 MO 10/31/12 Equip. Class[12] (10) Air Handlers

Equipment Description *Master for E/F EDG Building Vent Supply Fan Return Air Damper*

Location: Bldg. *Diesel Generator Building* Floor El. *151* Room, Area *D/G-19*

Manufacturer, Model, Etc. (optional but recommended) _____

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☑ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☑ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☑ N☐ U☐ N/A☐

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.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. ~~PO-00275-2~~ PO-0-40F-00272-02 MO 10/23/12 ~~2 KPG 9/17/12~~ Equip. Class[12] (10) Air Handlers

Equipment Description *Master for E4 EDG Building Vent Supply Fan Return Air Damper* MO 10/31/12

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☑ N☐ U☐ N/A☐

   NO SOFT TARGETS

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☑ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☑ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☑ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☑ N☐ U☐

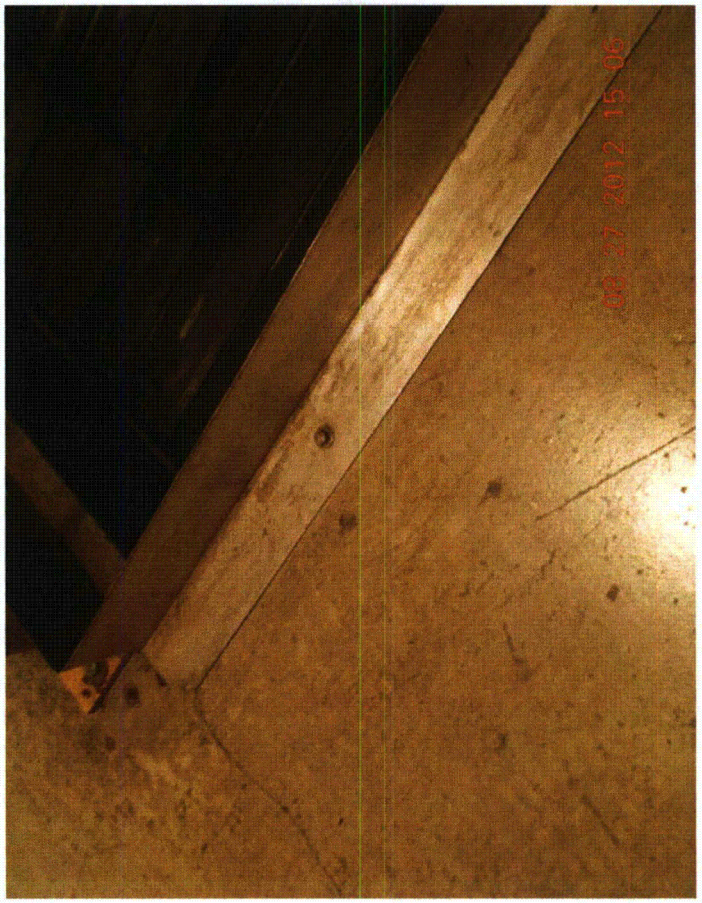
Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggins (signature) Date: 9/17/2012

(signature) 9/17/2012

Equipment ID: PO-0-40F-00272-02



Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. ~~TCV-52B-7239A~~ TCV-0-52E-7239A 8/31/12 BMF Equip. Class[12] (07) Fluid (Air/Hyd) Valves

Equipment Description *D/G Jacket Coolant 3-Way Thermostatic Control Valve*

Location: Bldg. *Diesel Generator Building* Floor El. *127* Room, Area *D/G-3*

Manufacturer, Model, Etc. (optional but recommended)

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Anchored to OAE376 El D/G Jacket Coolant cooler underneath valve.

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.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

TCV-0-52E-7239A

Equipment ID No. ~~TCV-52E-7239A~~ Equip. Class[12] (07) Fluid (Air/Hyd) Valves

Equipment Description *D/G Jacket Coolant 3-Way Thermostatic Control Valve*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Falling light bulbs during seismic will not have credible damage.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

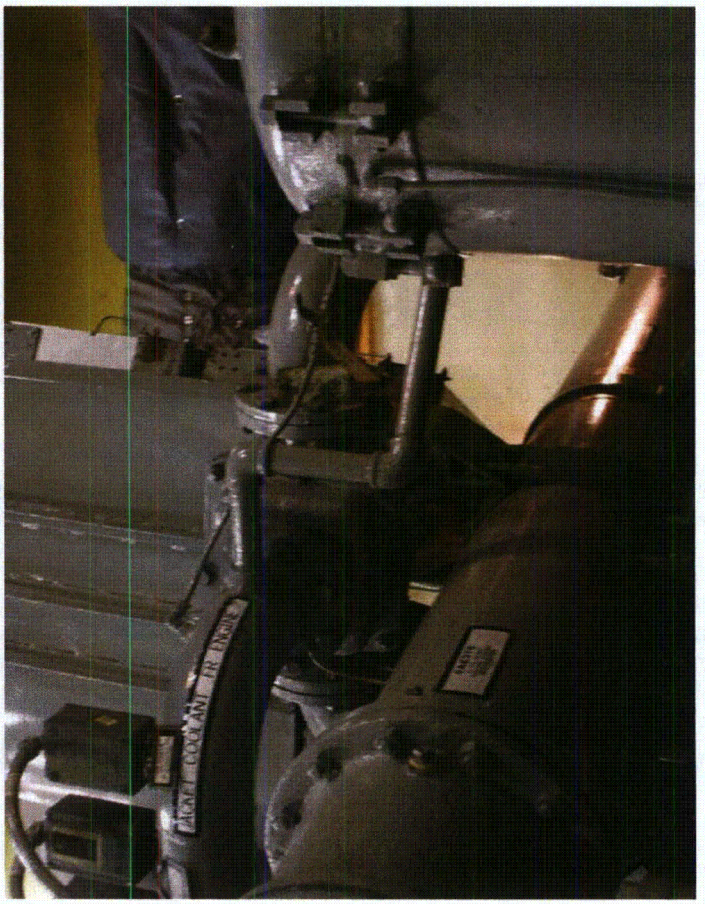
Other Adverse Conditions

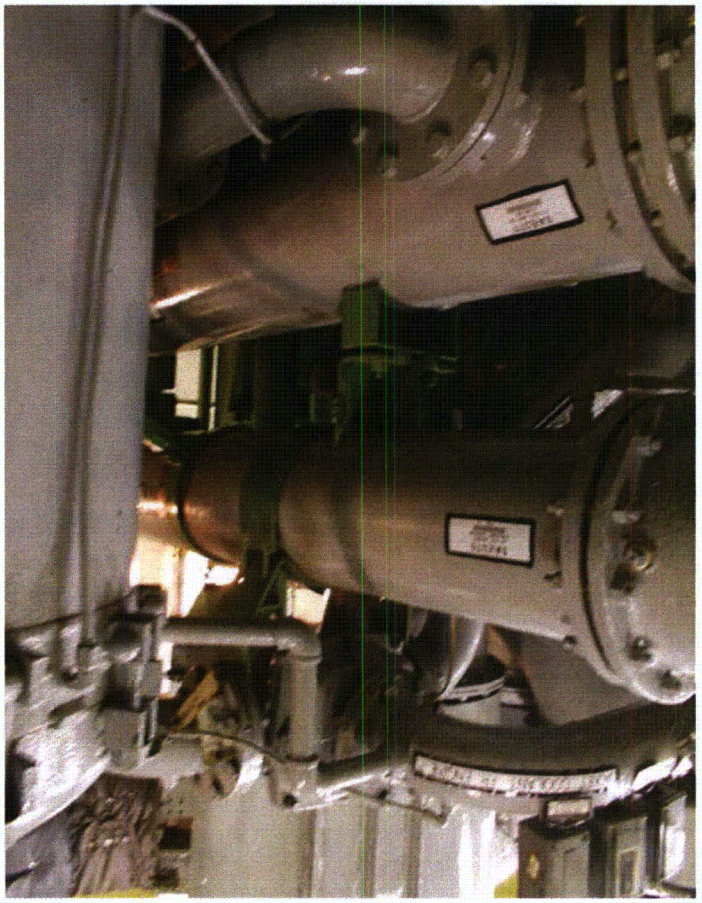
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: [signature] Date: 9/25/12

[signature] 9/25/12





Seismic Walkdown Checklist (SWC)

Equipment ID No. TS-0607D Equip. Class[12] (19) Temperature Sensors

Equipment Description E4 D/G Jacket Coolant Temperature Sensor

Location: Bldg. EDG Floor El. ~~112~~ 127 Room, Area D/G-9

Manufacturer, Model, Etc. (optional but recommended) MO 10/31/12

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 the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒
   Line mounted component
2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
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.) Y☐ N☐ U☐ N/A☒
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[12] Enter the equipment class name from **Appendix B:** Classes of Equipment.

Equipment ID No. TS-0607D Equip. Class[12] (19) Temperature Sensors

Equipment Description E4 D/G Jacket Coolant Temperature Sensor

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

   No soft target

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: _____ Date: 10/8/12

_____ 10/8/12


TS-0607D
E4 DIG JACKET COLNT
RETURN FROM ENG TEMP


COOLANT FR ENG


TS-0607D
COOLANT FR ENG

D

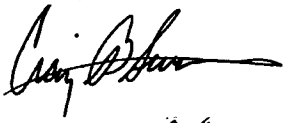
Area Walk-By Checklists (AWCs)

Below are the names and signatures of the personnel who performed the area walk-bys.

Ben Frazier 

Kevin Gantz 

Mojtaba Oghbaei 

Craig Swanner 

James Wiggin 

The order of the Area Walk-By Checklists (AWC) for Unit 2 is shown in Table D-1 below and the order of the AWCs for Unit 0 (common) is shown in Table D-2.

Note: Photos for the AWCs are included in the base component SWC in Appendix C.

Table D-1. Unit 2 Area Walk-By Checklists (AWCs)

AWC-Ux-YY	Building	Elevation	Location	Component ID
U2-1	Turbine	150	T2-81	20Y050
U2-2	Turbine	150	T2-81	20C722A
U2-3	Reactor	135	R2-20	20Y35
U2-4	Reactor	135	R2-22	SV-2-3-36
U2-5	Reactor	165	R2-40	PT2-2-3-404A
U2-6	Reactor	135	R2-24	HCU-30-23
U2-7	Reactor	165	R2-41	20X30
U2-8	Reactor	195	R2-53	PT-2508A
U2-9	Turbine	135	T2-171	20X133
U2-10	Reactor	91	R2-10	LS2-23-91B
U2-11	Reactor	88	R2-15	20C87
U2-12	Turbine	135	T2-73	20D37
U2-13	Turbine	135	T2-172	2DD03
U2-14	Turbine	135	T2-169	2BD01
U2-15	Turbine	135	T2-70	2AD01
U2-16	Reactor	91	R2-14	20P036 & 20S038
U2-17	Reactor	116	R2-19	2GE58
U2-18	Pump Structure	112	P/H-6	2AV060
U2-19	Reactor	91	R2-8	2DP035
U2-20	Reactor	91	R2-6	MO2-10-174
U2-21	Reactor	116	R2-18	MO2-10-015B
U2-22	Screen House	116	S/H-4	MO2-30-2233A
U2-23	Turbine	135	T2-170	2AD03
U2-24	Reactor	135	R2-30	AO2-01-086D
U2-25	Drywell	134	D/W2-17	MO2-10-018
U2-26	Drywell	155	D/W2-35	RV2-02-071K
U2-27	Reactor	88	R2-13	20P033, 20P038
U2-28	Turbine	135	Recirc mg set room	20B324
U2-29	Turbine	135	R2-23	20B037
U2-30	Turbine	135	T2-71	20B060
U2-31	Reactor	165	R2-41	20X032

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turb Floor El. 150 Room, Area[13] Cable Spreading room (T2-81)

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

   Cable raceways not overloaded

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)? Y☒ N☐ U☐ N/A☐

   Nearby lighting hard mounted with channel or threaded rod, there is no potential for falling lightbulbs to damage equipment.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 150 Room, Area[13] Cable Spreading Room (T2-81)

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   No water piping.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   Temporary wheeled carts adequately locked. Temporary wheeled chairs adequately chained to temporary table.

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

Comments (Additional pages may be added as necessary)

Masonry walls verified in SWC for 20Y050.

Evaluated by: Ben Fry Date: 8/31/12

M. Moghaei 8/31/12

AWC-U2-C
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 150 Room, Area[13] Cable Spreading Room South ~~west~~ BMF 8/29/12

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)? Y☒ N☐ U☐ N/A☐

   Equipment (cabinet) 20 C 32 was opened for testing and an anchorage mounting bolt was observed as missing. IR# 1425994 M.D. 10/16/12

   Issue Addressed in

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

   Cable trays are not overloaded.
   HVAC ducting properly secured.

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 150 Room, Area[13] Cable Spread Room

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Threaded piping in the area contains carbon dioxide and is not a concern.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. oghbaei Date: 10/16/12

Ben Fry 10/16/12

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Rx Floor El. 135 Room, Area[13] Southeast corner

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

   Cable trays not overloaded.

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 135 Room, Area[13] South east corner

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Fire piping in area is welded.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   Temporary equipment staged for outage and temporary ductin in area.

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oghbaei Date: 8/30/12

Ben Fay 8/30/12

AWC-U2-4
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Rx Floor El. 135 Room, Area[13] R-22 Scram Discharge area

Instructions for Completing Checklist

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

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   Raceways not overloaded,

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Rx Floor El. 135 Room, Area[13] R2-22 Scram Discharge Area

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Fire piping is welded,

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   Scaffolding in area,
   Toolbox on wheels in area has wheel locks,

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oghbaei Date: 8/30/12

Ben Fuy 8/31/12

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 165 Room, Area[13] R2-40

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 165 Room, Area[13] R2-40

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
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)?	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: M. Ogbaci Date: 8/30/12

Ben Fay 8/31/12

AWC-U2-6
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. RX Floor El. 135 Room, Area[13] North east

Instructions for Completing Checklist

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

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   Minor chipping of some anchorage grout pads, No structural impact.

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)? Y☒ N☐ U☐ N/A☐
   Cable race ways not overloaded.

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)? Y☒ N☐ U☐ N/A☐
   Crane controller attached to temporary scaffolding when not in use. No indication of permanent storage location for controller. No credible damage from swinging controller during a seismic event as there is no sensitive equipment around the controller.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Rx Floor El. 135 Room, Area[13] Northeast

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   No threaded connections or nearby piping.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   Temporary carts in area are chained or have wheel locks.

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oghbaei Date: 8/30/12

Ben Jay 8/30/12

AWC-U2-7
Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 165 Room, Area[13] R2-41 & R2-16 Load Center Bays

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 165 Room, Area[13] R2-41 and R2-16 Load center Bays

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
Breaker hoist secured to floor. Ladder properly secured to wall. Temporary HVAC equipment wheels choked.

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

Comments (Additional pages may be added as necessary)

Block walls addressed in SWCs for components 20X030 and 20X033.

Evaluated by: M. Oghbaei Date: 8/30/12

Ben Fry 8/30/12

AWC-U2-8
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 195 Room, Area[13] R2-53

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

   no ceiling tiles.

   potential light bulb fall will not cause credible damage.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 195 Room, Area[13] R2-53

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y[X] N[ ] U[ ] N/A[ ]

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y[X] N[ ] U[ ] N/A[ ]

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)? Y[X] N[ ] U[ ] N/A[ ]
The ladder is chained to the wall.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y[X] N[ ] U[ ]

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oghbaei Date: 8/30/12

Ben Jay 8/30/12

AWC-U2-9
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-171

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)? Y☒ N☐ U☐ N/A☐
   - One panel cover wing-nut missing (out of 4) on junction box judged acceptable
   - Anchorage of 2AC757 appears to be missing a nut on the center bolt. However, two outer bolts are secured to floor. As-built configuration appears to be a back-fit and is judged acceptable
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
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)? Y☒ N☐ U☐ N/A☐
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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-171

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   - Threaded fire piping is a double-interlock pre-action system (dry piping) per DBD No. P-S-51, Rev. 10

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - No temporary or portable equipment

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   - Block walls safety-related per PBAPS Specification No. M-701, Rev. 1 (Block wall #s 40-8, -14 and -16) gar 9/11/2012

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: Jonas Wiggins Date: 9/17/2012

[signature] 9/17/2012

AWC-02-10
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] R2-10

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Large HVAC ducts have proper supports

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] A2-10

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
, Scaffolding braced to elevated structural steel platform

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggum Date: 8/30/2012
X: GS 8/30/2012

AWC-U2-11
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 88 Room, Area[13] R2-15

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 88 Room, Area[13] R2-15

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

~~Threaded Fire piping~~ JMW 8/30/2012

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

• Scaffolding mounted to structural steel

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: [signature] Date: 8/30/2012

[signature] 8/30/2012

< C-6 >

AWC-UZ-12
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-73

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Several cable trays in area but all lightly loaded and properly anchored

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-73

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   - Threaded fire piping is a pre-action system per DBD No. P-S-51, Rev. 10 (dry piping)

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - several tool carts in area, but all have clamped wheels
   - Equipment in lay-down area not credible threat to area SSCs

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James McGinn Date: 9/17/2012

X: [signature] 9/17/2012

AWC-UZ-13
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-172

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)? Y☒ N☐ U☐ N/A☐
   - Anchorage for 20X055 is different configuration than other similar wall-mounted transformers, but adequate (NOTE THAT THIS COMPONENT IS NOT SAFETY-RELATED) VCB 11/5/12 GW 11/5/2012
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
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)? Y☒ N☐ U☐ N/A☐
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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-172

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   - Threaded fire piping is a double-interlock pre-action system (dry piping) per DBD No. P-S-51, Rev. 10

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   - Block walls ARE safety-related per PBAPS Specification No. M-701, Rev. 1. KG 9/11/2012
   BLOCK WALLS ARE # 40-3, -9, -15, AND -17 KG 9/11/2012

Comments (Additional pages may be added as necessary)

- In-progress work did not affect seismic adequacy of area SSCs and was consistent w/ good seismic housekeeping practices

Evaluated by: James Wiggin Date: 8/29/2012
JC Gs 8/29/2012

AWC-UZ-14
Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-169

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - One raceway support clamped to vertical beam flange (should be a horizontal beam) judged acceptable as SSCs below are spare/inactive equipment and span is otherwise well supported

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-169

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   - Threaded fire piping is a double-interlock pre-action system (dry piping) per OBD No. P-S-51, Rev. 10

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Eye wash station unanchored not a threat to area SSCs

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   - Block walls ~~reinforced per~~ per 8/29/2012 safety-related per PBAPS Specification M-701, Rev. 1 (Block wall #s 40-7 and 40-14) per 9/11/2012

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: Jonny Wiggin Date: 8/29/2012

8/29/2012

AWC-U2-15
Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. B5 Room, Area[13] D2-70

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-70

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   - Threaded firing piping is a double-interlock pre-action system (dry piping) per DBD No. P-S-51, Rev. 10

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - No temporary or portable equipment

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   - Block walls ~~reinforced per~~ gmr 8/29/2012 safety-related per PBAPS Specification No. M-701, Rev. 1 (Block wall #s 40-1, -7 and -13) gmr 9/11/2012

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 8/29/2012

[signature] 8/29/2012

AWC- U2-16
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] R2-14

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] R2-14

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Scaffolding mounted to structural steel
   - Tool cart in area w/ clamped wheels

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   - Block walls safety-related per PBAPS specification No. M-701, Rev. 1

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggins Date: 8/31/2012

K. [illegible] 8/31/2012

AWC-U2-17
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 116 Room, Area[13] R2-19

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 116 Room, Area[13] R2-19

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
· Scaffold securely mounted to structural concrete

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggins Date: 8/30/2012

JG 8/30/2012

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Pump Shelter Floor El. 112 Room, Area[13] P/H-6

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Pump Structure Floor El. 112 Room, Area[13] P/H-6

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Scaffolding securely built or in-progress

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   - Block wall CB6.1 ~~reinforced per~~ g/m 8/29/2012 safety-related per PBAPS Specification M-701, Rev. 1

KG 9/14/2012

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 8/29/2012

K. Gt 8/29/2012

AWC-U2-19
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] R2-8

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   Mild to moderate corrosion on edge of instrument stand support judged acceptable

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] R2-8

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
. Broom judged neither credible or significant threat

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wrigjin Date: 8/30/2012
[illegible] 8/30/2012

AWC-UZ-20
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] R2-6

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
One conduit support had different but adequate configuration than other supports

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 91 Room, Area[13] R2-6

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
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)?	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 8/31/2012

8/31/2012

AWC-U2-21
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 116 Room, Area[13] R2-18

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   - Mild to moderate corrosion on wall-mounted pipe and instrument supports judged acceptable

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Overhead crane has chains and hook dangling near safety-related ESW piping but secured on one end, range of potential motion results in non-credible threat

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 116 Room, Area[13] R2-18

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
- Unsecured ladder not a credible threat to area SSCs

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 8/31/2012

[signature] 8/31/2012

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Screenhouse Floor El. 116 Room, Area[13] S/H-4

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)? Y☒ N☐ U☐ N/A☐
   - Loose frame bolts abandoned in place – no concern
   - One of four bolts missing on two different instrument stands – non-safety related equipment therefore no concern
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   - Moderate to severe corrosion on two instrument stand support plates – non-safety related equipment therefore no concern
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)? Y☒ N☐ U☐ N/A☐
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)? Y☒ N☐ U☐ N/A☐
   - Unlatched tool cabinet out of range of area SSCs

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Screenhouse Floor El. 116 Room, Area[13] S/H-4

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Unanchored ladder not credible threat to area SSCs
   - Broom not credible threat to SSCs

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   - Unbolted conduit covers at floor level not credible threat to area SSCs

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggins Date: 8/28/2012

K. Gil 8/28/2012

AWC-UZ-23
Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] R-170

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)? Y☒ N☐ U☐ N/A☐

   - Anchorage for 2CC757 appears to be missing a nut on the center bolt. However, two outer bolts are secured to floor. As-built configuration appears to be a back-fit and is judged acceptable.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

   - Open S-hook one end of fluorescent light, not credible threat to area SSCs

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] 170

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
. Threaded fire piping is a double-interlock pre-action system (dry piping) per OBD No. P-S-51, Rev. 10

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
. No temporary or portable equipment

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
. Block walls safety-related per PBAPS Specification No. M-701, Rev. 1.
BLOCK WALLS ARE # 40-2, -8, -13, AND -15. KG 9/11/2012

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 9/17/2012
JK Gt 9/17/2012

AWC-U2-24
Sheet 1 of 2
Status: Y N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 135 Room, Area[13] R2-30

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 135 Room, Area[13] R2-30

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Tool cart has locked wheels
   - Scaffolds securely mounted to structural steel

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   N/A

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 9/13/2012

K. Gt 9/13/2012

AWC-U2-25
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Drywell Floor El. 134 Room, Area[13] D/W 2-18 and D/W 2-17

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

- Overhead crane locked in home position away from area SSCs

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Drywell Floor El. 134 Room, Area[13] DW2-18 and DW2-17

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
- Scaffolds securely mounted to structural steel
- Tool cart chained to structural steel
- Loose tools in active work zone judged not a credible threat to area SSCs

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
- Junction box support frame appears to be missing one of four mounting bolts; judged not credible to fail in seismic event and would not affect area SSCs if it were to fall

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: Jenny Wiggin Date: 9/13/2012

9/13/2012

AWC-U2-26
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Drywell Floor El. 154 Room, Area[13] D/W 2-35

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   - Mild to moderate surface corrosion judged acceptable

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Overhead cranes locked in home positions away from area SSCs
   - Loose insulation cover lying on floor grating judged not a credible threat to area SSCs

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Drywell Floor El. 154 Room, Area[13] D/W2-35

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Lead shielding securely mounted

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 9/13/2012

K. Ge 9/13/2012

AWC-U2-27
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. REACTOR Floor El. 88 Room, Area[13] R2-13

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

   - LARGE-BORE PIPING OVERHEAD PROPERLY SUPPORTED.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

   - OVERHEAD CRANE IN PROPER STORAGE PLACE; CONTROLLER NOT SECURED (COILED) ON HPCI BOOSTER PUMP PEDESTAL), NOT A CREDIBLE THREAT TO PUMP OR OTHER AREA SSCs. CANNOT ACTUATE, NOT PLUGGED IN.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. REACTOR Floor El. 88 Room, Area[13] R2-13

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

FIRE PIPING SUPPORT MISSING 1 OF 4 ANCHOR BOLTS. JUDGED TO BE ADEQUATELY SUPPORTED. ADDRESSED BY IR # 1425997. KC 10/16/12

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

- SEVERAL SCAFFOLDS IN AREA, ALL SECURELY MOUNTED TO STRUCTURAL STEEL.

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

Comments (Additional pages may be added as necessary)

- INCLUDES STAIRWELL W/ HPCI AUX LUBE OIL PUMP STARTER.

Evaluated by: _____ Date: 10/16/12

_____ 10/16/2012

AWC-U2-28
Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

2

Location: Bldg. Radwaste Floor El. 135 Room, Area[13] Recirc MG Set

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

No II/I concerns identified.
Fixtures are secure.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. 2 Radwaste Floor El. 135 Room, Area[13] MG Recirc Set

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
Need to verify fire piping is pre-action.
Confirmed per UFSAR FPP Page 2-4, Rev 17.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☐ N☒ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
~~Hoses related Outage related~~ All housekeeping items related to ongoing outage work
Ladders in area adequately secured.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
~~No~~

Comments (Additional pages may be added as necessary)

Evaluated by: [signature] Date: 10/8/12

[signature] 10/8/12

AWC-UZ-29
Sheet 1 of 2
Status: Y N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 135 Room, Area[13] R2-23

Instructions for Completing Checklist

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

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
No II/I issues.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Floor El. 135 Room, Area[13] R2-23

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Fire protection line is welded & valved shut.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   Temporary equipment is secure. Ladder is part of work in progress.

Comments (Additional pages may be added as necessary)

Evaluated by: [signature] Date: 10/3/12

[signature] 10/3/12

AWC-U2-30
Sheet 1 of 2
Status: Y N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-71

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)? Y☒ N☐ U☐ N/A☐
   No not on anchorage for 2BC757 was identified. This is the MG Set for Output for the Recirc pumps. The panel is non safety so not an issue for safe shutdown.
   ~~ER~~ BL 10/3/12
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
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)? Y☒ N☐ U☐ N/A☐
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)? Y☒ N☐ U☐ N/A☐
   Lighting is secured.
   Need to verify block wall is reinforced.
   Per Dwg. S40, Rev. 26 and Spec. M-701, Rev. 1, block walls are safety related.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 135 Room, Area[13] T2-71

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
Need to confirm Fire protection system is pre action. Confirmed per UFSAR FPP p. 2-4, Rev. 17.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
Only housekeeping items identified are part of work in progress.

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Eghbali Date: 10/8/12

10/8/12

AWC-02-01

Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Bldg. Floor El. 165 Room/Area[13] Near 20 X 032

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

No II/I issues identified.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Reactor Bldg. Floor El. 165 Room, Area[13] Near 20x0 32

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

Fire protection line is welded pipe

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐ All temporary outage related equipment is secure

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

Comments (Additional pages may be added as necessary)

Evaluated by: [signature] Date: 10/3/12

[signature] 10/3/12

< C-6 >

Table D-2. Unit 0 Area Walk-By Checklists (AWCs)

AWC-Ux-YY	Building	Elevation	Location	Component ID
U0-1	Diesel Generator Building	121 & 127	D/G-1 & DG-2	MO-0-33-0498
U0-2	Diesel Generator Building	121 & 127	D/G-3	0AP060
U0-3	Emergency Cooling Towers	195	ECT-6	0BK032
U0-4	Emergency Cooling Towers	114	ECT-1	MO-48-0501A
U0-5	Emergency Cooling Towers	114	ECT-1	MO-2-48-2804A
U0-6	Turbine	165	T2-100 & T3-100 (East Corridor)	00C29B
U0-7	Turbine	165	T2-100 & T3-100 (Main Floor)	20C005A
U0-8	Turbine	165	Fan room	0BV030
U0-9	Diesel Generator Building	151	D/G-13	0AV064
U0-10	Radwaste	165	R/W-32	0AV036
U0-11	Diesel Generator Building	121 & 127	D/G-9	0DE377
U0-12	Diesel Generator Building	151	D/G-20	0DV064
U0-13	Pump Structure	112	U2 HPSW pump room	00B061

AWC-UΦ-1
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Gen. Bldg. Floor El. 121 & 127 MO 10/31/12 Room, Area[13] D/G-2 + D/G-1 BMP 10/23/12

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

One open S hook found on lighting fixture above HV-O-48-503B ESW Booster pump suction isolation valve. ~~Open S-hook condition recorded in IR # 01113285.~~ ~~The open S hooks should be closed.~~ MO 11/8/12 If the S-hook detached, it is not plausible for the light fixture to damage nearby equipment. The light fixture would be supported by the remaining chain and away from any equipment. ~~MO 10/31/12~~

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Gen. Bldg. Floor El. 121'/127' MO 10/31/12 Room, Area[13] D/G-2 & D/G-1

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

Fire protection system uses carbon dioxide. Piping has threaded connections but is not a concern.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

Scaffolding installed around cardox equipment. Scaffolding is complete and ready for use. Scaffolding #M12-0208.

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oshbeci Date: 8/29/12

Ben Fazi 8/29/12

AWC-U2-2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Gen. Bldg. Floor El. 121-127 Room, Area[13] D/G-3

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

   Light bulb fixtures viewed from the floor appear to be secure. Potential light bulb fall during seismic will not have credible damage.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Floor El. 121-127 Room, Area[13] D/G-3

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
scaffolding located at diesel cooling water expansion tank. Scaffolding is complete and ready for use, LT-0267.

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oghbaei Date: 8/28/12

Ba Jg 8/31/12

HWC-U0-3

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. ECT Floor El. 195 Room, Area[13] E. Cooling tower roof (ECT-6)

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. ECT Floor El. 195 Room, Area[13] E. Cooling Tower Roof (ECT-6)

5.	Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6.	Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
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)?	Y☒ N☐ U☐ N/A☐
8.	Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: H. Oghbaei Date: 8/28/12

Ben Fuja 8/28/12

AWC-Uϕ-4
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. ECT Floor El. 114 Room, Area[13] ECT-1

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

No ceiling tiles.
Observed lighting fixtures properly secured with S-hooks.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. ECT Floor El. 114 Room, Area[13] ECT-1

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Ogilvie Date: 8/28/12

Ben Fuji 8/28/12

AWC-U0-5
Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. ECT Floor El. 114 Room, Area[13] ECT-1 Valve Pit

Instructions for Completing Checklist

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

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   Anchorage for pipe support on north wall for ESW to ECT pipe shows minor corrosion that may lead to a degraded condition in the future.
   Other minor surface corrosion noted.

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   Ladder properly secured to wall.
   No ceiling tiles.
   Observed lighting fixtures properly secured with S-hooks.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. ECT Floor El. 114 Room, Area[13] ECT-1 Valve Pit

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
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)? ladder properly secured to wall.	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: M-Oghbaei Date: 8/28/12

Ben Fong 8/29/12

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 165 Room, Area[13] back walkway for control room

Instructions for Completing Checklist

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

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 165 Room, Area[13] Back walkway for Control Room

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

   No water piping

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oghbaei Date: 8/31/12

Ben Fong 8/31/12

< C-6 >

AWC-U0-7

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Bldg. Floor El. 165 Room, Area[13] Control Room

Instructions for Completing Checklist

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

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

MCR ceiling consistent with Calc 26-S/Z-12, revision 0. Calc G-106-1 would not be located. See IR 01428651.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Bldg Floor El. 165 Room, Area[13] Control Room

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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

Comments (Additional pages may be added as necessary)

Evaluated by: [signature] Date: 10/19/12

M. Ogbaei 10/19/12

AWC-UΦ-8
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 465 Room, Area[13] Fan Room

Instructions for Completing Checklist

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

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

   OBV039 and OAV029 are mounted on vibration isolators with no means to support lateral motion due to a seismic event. These components were verified to not be safety related

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

   Missing nut for anchorage of OAF042, component verified be non-safety related, and determined to be adequate as-found.

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Turbine Floor El. 165 Room, Area[13] Fan Room

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ben Fry Date: 9/25/12

M. Oghbaei 9/25/12

AWC-U0-9
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. DIESEL GEN. BLDG Floor El. 15' Room, Area[13] DG-19

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)? Y☑ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☑ N☐ U☐ N/A☐

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)? Y☑ N☐ U☐ N/A☐

   NONE

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)? Y☑ N☐ U☐ N/A☐

   LIGHTS HANGING ON OPEN HOOKS, CONFIGURATION JUDGED NOT TO CREDIBLY ALLOW FIXTURE TO ESCAPE. ~~INTERACTION BETWEEN~~ KB 8/27/12 IF FIXTURE DID ESCAPE, CONTACT WOULD NOT BE SIGNIFICANT.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Generator Building Floor El. 151 Room, Area[13] D/G-19

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☑ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☑ N☐ U☐ N/A☐

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)? Y☑ N☐ U☐ N/A☐

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 8/27/2012

JG 8/27/2012

AWC-U0-10
Sheet 1 of 2

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Radwaste Floor El. 165 Room, Area[13] R/W-32

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)? Y☒ N☐ U☐ N/A☐
   - Anchorage for fans 0AV07 and 0BV007 do not have lateral supports for vibration isolators — non-safety related equipment, not in range of other area SSCs

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Several cable trays in area, but all adequately supported

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Radwaste Floor El. 165 Room, Area[13] R/W-32

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   - Threaded fire piping is a nitrogen-filled pre-action system (dry piping) per visual verification of deluge components

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
   - Tool cart chained to structural support

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wiggin Date: 8/30/2012

JC Gs 8/30/2012

AWC-UØ-11
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Generator Building Floor El. 127 Room, Area[13] 121 & MO 10/31/12 DIG-9, DIG-10

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)? Y☑ N☐ U☐ N/A☐

   AIR RESERVOIR 0GT095 HAS ½" Ø ANCHOR BOLTS AND IS DESIGNED TO HAVE ¾" Ø BOLTS (THE TANK IS THE SAME AS 0HT095). THE SMALLER ANCHOR BOLTS ARE JUDGED TO BE ACCEPTABLE. ~~SEE ATTACHED CALCULATION TO THE SWE AWC FOR 0HT095.~~ KG 11/8/12 THIS IS EVALUATED AS ACCEPTABLE PER NCR P90140. KG 11/8/12 ~~KG 11/7/2012~~

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☑ N☐ U☐ N/A☐

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)? Y☑ N☐ U☐ N/A☐

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)? Y☑ N☐ U☐ N/A☐

   UNCAGED FLUORESCENT LIGHTS judged credible but not significant threat to area SSCs.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Generator Building Floor El. 127 Room, Area[13] 121 & MO 10/31/12 D10-9, D2-10

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☑ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☑ N☐ U☐ N/A☐

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)? Y☑ N☐ U☐ N/A☐
SCAFFOLD CART WITH LOCKED WHEEL

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

Comments (Additional pages may be added as necessary)

N/A

Evaluated by: James Wrigain Date: 8/28/2012
K. Gat 8/28/2012

AWC-UØ-12
Sheet 1 of 2
Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Diesel Floor El. 151 Room, Area[13] near ODVOG4

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐ No II/I concerns identified. Overhead lighting ~~is~~ has long hooks to eyebolt. Not a concern due short extension rod & the fact that lateral motion is judged not to be capable of disengaging hook & eyebolt.

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. EDG Floor El. 3151 Room, Area[13] near OVD064

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
No water lines identified.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐
Fire protection is CO_2.

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)? Y☒ N☐ U☐ N/A☐

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ben Fay Date: 9/25/12

9/25/12

Status: (Y) N U

Area Walk-By Checklist (AWC)

Location: Bldg. Pump Structure Floor El. 112 Room, Area[13] U2 HPSW Pump Room P/H-6

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)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐

No II/I issues identified

~~Need to~~ MO 11/8/12 verify block wall is reinforced

Block wall C86.1 Safety related per PBAPS Specification M-701, Rev. 1. MO 10/8/12

10/8/12

[13] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)

Location: Bldg. Pump Structure Floor El. 112 Room, Area[13] U2 HPSW Pump Room P/H-6

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
Fire protection lines welded.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

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)? Y☒ N☐ U☐ N/A☐
All temporary equipment + outage related equipment secure.

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

Comments (Additional pages may be added as necessary)

Evaluated by: M. Oghbaei Date: 10/8/12

10/8/12

E

Plan for Walkdown of Inaccessible Equipment and Assessment of Electrical Cabinet Internal Inspections

E.1. Plan for Walkdown of Inaccessible Equipment

As shown in the SWEL for PBAPS Unit 2 in Appendix B (Table B-3), one item has been deferred until a future electrical outage. Table E-1 describes the deferred item and the reason it is inaccessible during normal plant operation. PBAPS Issue Report (IR) #01426027 has been written to schedule the Seismic Walkdown (and Area Walk-By) for this item in the third quarter of 2013.

Table E-1. Summary of Inaccessible Equipment

Component ID	Description	Reason for Inaccessibility
00B094	480V Bus E13A4	Requires 4KV Bus Outage

E.2. Assessment of Electrical Cabinet Internal Inspections

All electrical cabinets on the SWEL require assessment of the need for inspections to address the potential for "other adverse seismic conditions" internal to the cabinet. This assessment is required due to an NRC clarification of their expectations for seismic walkdowns, which was received after the online seismic walkdowns were completed. Tables E-2 (for Unit 2) and E-3 (for Unit 0) list all electrical items that require assessment. Accessibility of equipment, basis for accessibility determination, completion date of internal inspections, tracking number (if internal inspection has not yet been performed) and inspection results are provided in these tables.

Table E-2. Assessment of Unit 2 Electrical Cabinet Internal Inspections

Component ID	Description	EPRI Equipment Class	Accessible (Y/N)	If Not Accessible, Why?	Milestone Completion	Tracking Number (IR Number)	Status / Inspection Results
20B324	MO-2-23-015 Motor Control Power Transfer Switch	(01) Motor Control Centers	Y	N/A	9/2012	N/A	SAT
20B325	RCIC INBD Iso. Valve MO2-13-15 Motor Controls	(01) Motor Control Centers	Y	N/A	9/2012	N/A	SAT
20B338	Remote Motor Starter MO-2-10-16D	(01) Motor Control Centers	N	Tools required for disassembly	N/A	N/A	N/A
20B037	Reactor Area MCC E224-R-B	(01) Motor Control Centers	N*	Tools required for disassembly	N/A	N/A	N/A
20B060	Turbine Area MCC E224-T-B	(01) Motor Control Centers	N*	Tools required for disassembly	N/A	N/A	N/A
20A15 (E12)	Emergency 4kV Aux Switchgear (E12)	(03) Medium Voltage Switchgears	N*	Tools required for disassembly	N/A	N/A	N/A
20A016 (E22)	Emergency 4kV Aux Switchgear (E22)	(03) Medium Voltage Switchgears	N*	Tools required for disassembly	N/A	N/A	N/A
20X033	Load Center E424 Transformer	(04) Transformers	N	Tools required for disassembly	N/A	N/A	N/A
20X133	Panel 20Y33 Transformer	(04) Transformers	N	Tools required for disassembly	N/A	N/A	N/A
20X30	Load Center Transformer E124	(04) Transformers	N	Tools required for disassembly	N/A	N/A	N/A
20X032	Reactor Area Load Center E324	(04) Transformers	N	Tools required for disassembly	N/A	N/A	N/A
20Y050	120V AC Distribution Panel 2C	(14) Distribution Panels	Y	N/A	9/2012	N/A	SAT
20Y35	120V AC Distribution Panel 2C	(14) Distribution Panels	N	Located in contaminated area	N/A	N/A	N/A
2AD025	125V DC Distribution Panel	(14) Distribution Panels	N	Tools required for disassembly	N/A	N/A	N/A
20D37	Static Inverter	(16) Battery Chargers and Inverters	N	Energized Equipment; never out of service (diesel backed, no PM)	N/A	N/A	N/A
2AD03	Battery Charger 2A	(16) Battery Chargers and Inverters	Y	N/A	5/2014	A1872429	Scheduled
2DD03	Battery Charger 2D	(16) Battery Chargers and Inverters	Y	N/A	7/2014	A1877802	Scheduled
20C003	Reactor and Containment Cooling and Isolation	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
20C004C	RCIC Control Panel	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT

Table E-2. Assessment of Unit 2 Electrical Cabinet Internal Inspections

Component ID	Description	EPRI Equipment Class	Accessible (Y/N)	If Not Accessible, Why?	Milestone Completion	Tracking Number (IR Number)	Status / Inspection Results
20C005A	Reactor Manual Control Panel	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
20C006C	Main Control Room Console	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
20C39	HPCI Relay Cabinet	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
20C722A	Accident Monitoring Instrumentation Panel	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
20D43	HPCI Aux Lube Oil Pump Starter	(20) Control Panels & Cabinets	N	Tools required for disassembly	N/A	N/A	N/A
2BC270	HPCI Steam Leak Detection Cabinet	(20) Control Panels & Cabinets	N	Tools required for disassembly	N/A	N/A	N/A
LI2-2-3-113	Reactor Water Level	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
LI2-3-86	Reactor Vessel High Water	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
LI-8027	Torus Water Level	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT
LR/TR-8123B	Torus Water Level/Temperature Recorder	(20) Control Panels & Cabinets	Y	N/A	8/2012	N/A	SAT

* Item was opened (with tools) by maintenance so that internal anchorage could be confirmed, and no anomalies or other adverse seismic conditions were observed.

Table E-3. Assessment of Unit 0 Electrical Cabinet Internal Inspections

Component ID	Description	EPRI Equipment Class	Accessible (Y/N)	If Not Accessible, Why?	Milestone Completion	Tracking Number (IR Number)	Status / Inspection Results
00B061	Pump Structure MCC E224-P-A	(01) Motor Control Center	N	Tools required for disassembly	N/A	N/A	N/A
00B94	480V Bus E13A4	(02) Low Voltage Switchgears	N	Tools required for disassembly	N/A	N/A	N/A
00C29B	Emergency Protection Relay Board	(20) Control Panels & Cabinets	Y	N/A	9/2012	N/A	SAT
0AC097	Diesel Generator OAG12 Control Panel	(20) Control Panels & Cabinets	Y	N/A	5/2015	A1620164	Scheduled

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 Seismic Walkdown Guidance (Reference 1).

Peer Review Report

for

Near Term Task Force (NTTF) Recommendation 2.3

Seismic Walkdown of Peach Bottom Unit 2

Peer Reviewers:

Patrick Butler (Team Leader)

Craig Swanner

Caroline Schlaseman

Patrick Butler, P.E.			
Peer Review Team Leader Signature	Patrick Butler	Date	10/16/2012

Contents

F.1 Introduction

F.1.1 Overview

This report documents the independent peer review for the Near Term Task Force (NTTF) Recommendation 2.3 Seismic Walkdowns performed by MPR Associates, Inc. for Unit 2 of Peach Bottom Atomic Power Station (PBAPS). 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 any licensing basis evaluations,
- Review of the decisions for entering the potentially adverse conditions in to the plant's Corrective Action Program (CAP), and
- Review of the final submittal report.

F.1.2 Peer Reviewers

The Peer Reviewers are Patrick Butler, Caroline Schlaseman and Craig Swanner. Mr. Butler is the Peer Review Team Leader, per the EPRI Seismic Walkdown Guidance (Reference 1). As Peer Review Team Leader, he was responsible for the entire peer review process, including completion of the final peer review documentation in this report. The Peer Reviewers' qualifications are briefly summarized as follows:

- Mr. Butler is a degreed mechanical engineer and has over twenty-five years of nuclear power experience. Mr. Butler and has been trained as a Seismic Capability Engineer (EPRI SQUG training) and is the primary author of EPRI SQUG Guidelines for the use of the SQUG Generic Implementation Procedure (GIP) for new and replacement components and equipment.
- Ms. Schlaseman is a degreed civil/structural engineer and has over 30 years of nuclear power experience. Ms. Schlaseman has been trained as a Seismic Capability Engineer and EPRI Seismic Walkdown Engineer (SWE), has performed USI A-46 (SQUG) seismic walkdowns for two stations, and is a principal investigator in (EPRI) document 1025286, "Seismic Walkdown Guidance: For Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic," which is the guidance document for performing the walkdowns documented in this report.

- Mr. Swanner is a degreed aerospace engineer with 20 years of nuclear plant experience. Mr. Swanner has been trained as a Seismic Capability Engineer and EPRI Seismic Walkdown Engineer (SWE).

Mr. Butler, Ms. Schlaseman and Mr. Swanner are registered professional engineers.

F.1.3 SWEL DEVELOPMENT

The SWEL development was performed by Mr. Benjamin Frazier. The initial peer review of the SWEL development was performed by Mr. Butler and Mr. Swanner, and was conducted between August 2, 2012 and August 16, 2012. There were no comments as noted on the SWEL Peer Review Checklist and no findings were cited. The completed SWEL Peer Review Checklist is found in Attachment 1. The discussion for the SWEL development peer review is provided in Section 2. Note that due to equipment accessibility including ALARA and electrical safety concerns, changes to the SWEL were made as the walkdowns were conducted. The Peer Review Team did review changes made during the walkdown and has reviewed the final SWEL included in Appendix B of the Walkdown Report. As noted in the SWEL Peer Review Checklist, there were no items from EPRI Equipment Classes 11, Chillers; 12, Air Compressors; or 13, Motor Generators. This was because there is no safety-related Seismic Class I equipment in these classes at Peach Bottom Unit 2. There is no Class 2, Low Voltage Switchgear (LVS) equipment in the Unit 2 SWEL, but there is one Class 2 LVS in the Unit 0 (common) SWEL, which has been deferred. Also, due to the significant number of modifications performed in the late 1990's as part of the USI A-46 (SQUG) and IPEEE programs, PBAPS Unit 2 has not made significant modifications to Seismic Class I equipment within the last several years.

F.1.4 SEISMIC WALKDOWN

The on-site peer review of the seismic walkdowns was performed by Mr. Butler and Ms. Schlaseman on August 30, 2012. The on-site and follow-up reviews included approximately 31% of the SWCs and approximately 43% of the AWCs applicable to the equipment for Unit 2 and common, including checklists, photos, and drawings where applicable. Interviews were conducted with both teams of SWEs to assess conduct of the walkdowns and adherence to the EPRI Seismic Walkdown Guidance (Reference 1). The discussion of the review of the sample of Seismic Walkdown Checklists (SWCs) and Area Walk-By Checklists (AWCs) is provided in Section 3.

The assessment of Issue Reports (IRs) with respect to current licensing basis is provided in Sections 5 and 6 of the report. These assessments and their outcomes were also discussed with the SWE inspection team in order to completely understand the issues.

F.2
Peer Review - Selection of SSCs

F.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).

F.2.2 PEER REVIEW ACTIVITY – SELECTION OF SSCS

The guidance in Section 3 of the EPRI Seismic Walkdown Guidance (Reference 1) was used as the basis for this review.

This peer review of SWEL 1 was based on reviews of preliminary documents provided by the SWEL preparer, Mr. Benjamin Frazier. Additionally, the Peer Reviewers, Mr. Butler and Mr. Swanner, interviewed Mr. Frazier. Reference 1 Appendix F: "Checklist for Peer Review of SSC Selection," was used by the Peer Reviewers to guide their review.

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

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

This peer review determined that the SSCs selected for the seismic walkdowns represent a diverse sample of equipment required to perform the five safety functions.

- Verification that the SSCs selected include an appropriate representation of items having the following sample selection attributes:
  - Various types of systems
  - Major new and replacement equipment (there are none)
  - Various types of equipment
  - Various environments
  - Equipment enhanced based on the findings of the IPEEE (or USI A-46)
  - Risk insight consideration

This peer review determined that the SSCs selected for the seismic walkdowns include an appropriate sample of items that represent each attribute/consideration identified above. The justification for this conclusion is: a) Based on a review of the UFSAR and SWEL 1 list, it was determined that an appropriate variety of equipment and systems are represented (e.g., HPCI, RCIC, Core Spray, RHR, CRD Scram Hydraulic, High Pressure Service Water, Batteries); b) The SWEL identifies that there are no "New and Replacement" equipment; c) A variety of location environments are included (e.g., Diesel Rooms, Reactor Building, Drywell, Turbine Building, Screen House, Pump Structure); d) The SWEL identifies several items of equipment that were enhanced as a result of IPEEE; and e) Risk Significant equipment items are identified on the SWEL. Additional details for these conclusions are presented in Attachment 1: Peer Review Checklist for SWEL.

There are no SWEL 2 items for PBAPS Unit 2. To confirm the appropriateness of this conclusion, the following actions were completed in the peer review process:

- Verification that spent fuel pool (SFP) related Seismic Class I SSCs were considered and appropriate justification was documented for why these items were not added to the SWEL 2.

This peer review determined that there are no spent fuel pool related items that are Seismic Class I.

- Verification that the potential for rapid drain down of the SFP was considered in accordance with the Reference 1 guidance, and appropriate justification was documented for no items being added to SWEL 2.

This peer review determined that appropriate consideration and justification were provided for there being no items identified that could result in rapid drain down. There are no SFP penetrations that could result in rapid draindown, and Fuel Pool Cooling and Cleanup piping includes holes specifically intended to prevent siphoning and draindown of the spent fuel pool (See Section 4.3 of the Report as well as Attachment 1 to this Appendix).

F.2.3 Peer Review Findings – Selection of SSCs

This peer review found that the process for selecting SSCs that were added to the SWEL was consistent with the process outlined in Section 3 of Reference 1.

The Peer Review Checklist is attached to this document with additional observations documented as appropriate. There were no comments or observations on the SWEL. This peer review resulted in no findings.

F.2.4 Resolution of Peer Review Comments – Selection of SSCs

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

F.2.5 CONCLUSION OF PEER REVIEW – SELECTION OF SSCs

This peer review concludes that the process for selecting SSCs to be included on the seismic walkdown equipment list appropriately followed the process outlined in Reference 1, Section 3: Selection of SSCs. It is further concluded that the SWEL sufficiently represents a broad population of plant Seismic Class I equipment and systems to meet the objectives of the NRC 50.54(f) Letter.

Peer Reviewer: Patrick Butler Date 10/16/2012

Peer Reviewer: Craig Bolan Date 10/16/2012

F.3
Review of Sample Checklist & Area Walk-Bys

The on-site peer review of the seismic walkdowns was performed for PBAPS Unit 2 on August 30, 2012 by Mr. Patrick Butler and Ms. Caroline Schlaseman. The Peer Review Team reviewed Seismic Walkdown Checklists (SWC) and Area Walk-by Checklists (AWC) that were performed for Peach Bottom Unit 2 and Common equipment, and interviewed the walkdown team members regarding details in checklists.

For Unit 2, there were two walkdown teams, which each consisted of two Seismic Walkdown Engineers (SWEs). The first team consisted of Mr. Benjamin Frazier and Mr. Mojtaba Oghbaei. The second team consisted of Mr. James Wiggin and Mr. Kevin Gantz. During the second week of walkdowns, Mr. Craig Swanner replaced Mr. Oghbaei.

Table F.3-1 lists the Peach Bottom Unit 2 and Common SWC and AWC sampling during the on-site and follow-up reviews. The SWCs and AWCs reviewed represent approximately 31% of the SWCs and approximately 43% of the AWCs applicable to this equipment for Unit 2 and Common, which exceeds the EPRI Guidance (Reference 1) requirement of a 10% to 25% sample.

Table F.3-1. Table of SWC and AWC Samples from Seismic Walkdown

Equipment ID (Applicable Area Walkby)	Description	Equipment Class	Location	Observations
0AV64 (AWC U0-9)	D/G Building Vent Supply Fan	(09) Fans	Diesel Generator Building, Room D/G-19, El. 151'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
PO-0-40F-00272-01 (AWC U0-9)	Master for E1 EDG Building Vent Supply Fan Outside Air Damper	(10) Air Handlers	Diesel Generator Building, Room D/G-19, El. 151'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.

Table F.3-1. Table of SWC and AWC Samples from Seismic Walkdown

Equipment ID (Applicable Area Walkby)	Description	Equipment Class	Location	Observations
PO-0-40F-00272-02 (AWC U0-9)	Master for E1 EDG Building Vent Supply Fan Return Air Damper	(10) Air Handlers	Diesel Generator Building, Room D/G-19, El. 151'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0DE377 (AWC U0-11)	E4 Diesel Generator Lube Oil Cooler	(21) Tanks or Heat Exchangers	Diesel Generator Building, Room D/G-9, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0HT95 (AWC U0-11)	E4 Diesel Generator Starting Air Reservoir	(21) Tanks or Heat Exchangers	Diesel Generator Building, Room D/G-9, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0DT40 (AWC U0-11)	E4 Diesel Generator Fuel Oil Day Tank	(21) Tanks or Heat Exchangers	Diesel Generator Building, Room D/G-9, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0DG012 (AWC U0-11)	E4 Standby Diesel Generator	(17) Engine Generators	Diesel Generator Building, Room D/G-9, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
A0-33-0241D (AWC U0-11)	ESW Outlet Block Valve from Diesel Generator from Diesel Generator E4 Coolers	(07) Fluid Valves	Diesel Generator Building, Room D/G-9, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.

Table F.3-1. Table of SWC and AWC Samples from Seismic Walkdown

Equipment ID (Applicable Area Walkby)	Description	Equipment Class	Location	Observations
0DP060 (AWC U0-11)	E4 D/G Fuel Oil Transfer Pump	(05) Horizontal Pumps	Diesel Generator Building, Room D/G-9, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
2AV060 (AWC U2-18)	HPSW Pump Room Supply Fan A	(09) Fans	Pump Structure, Room P/H-6, El. 112'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
POD-2-40H-20223-04 (AWC U2-18)	HPSW Pump Room Outside Air Supply Damper	(10) Air Handler	Pump Structure, Room P/H-6, El. 112'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0BP057 (AWC U3-3)	Emergency Service Water Pump B	(06) Vertical Pumps	Pump Structure, Room P/H-9, El. 112'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
2BD01 (AWC U2-14)	125V DC Battery 2B	(15) Batteries	Turbine Building, Room T2-169, El. 135'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
2AD01 (AWC U2-15)	125V DC Battery 2A	(15) Batteries	Turbine Building, Room T2-70, El. 135'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.

Table F.3-1. Table of SWC and AWC Samples from Seismic Walkdown

Equipment ID (Applicable Area Walkby)	Description	Equipment Class	Location	Observations
20X133 (AWC U2-9)	Panel 20Y33 Transformer	(04) Transformers	Turbine Building, Room T2-171, El. 135'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
2AD03 (AWC U2-23)	Battery Charger 2A	(16) Battery Chargers and Inverters	Turbine Building, Room T2-170, El. 135'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
2DD03 (AWC U2-13)	Battery Charger 2D	(16) Battery Chargers and Inverters	Turbine Building, Room T2-172, El. 135'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
20D37 (AWC U2-12)	Static Inverter	(16) Battery Chargers and Inverters	Turbine Building, Room T2-73, El. 135'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0AV036 (AWC U0-10)	Battery Room Exhaust Fan A	(09) Fans	Radwaste Building, Room R/W-32, El. 165'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
20C87 (AWC U2-11)	HPCI Instrument Rack	(18) Instruments on Racks/Not on Racks	Reactor Building, Room R2-15, El. 88'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.

Table F.3-1. Table of SWC and AWC Samples from Seismic Walkdown

Equipment ID (Applicable Area Walkby)	Description	Equipment Class	Location	Observations
2C095 (AWC U2-11)	RCIC Instrument Rack	(18) Instruments on Racks/Not on Racks	Reactor Building, Room R2-15, El. 88'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0AP163 (AWC U0-1)	Emergency Service Water Booster Pump A	(05) Horizontal Pump	Diesel Generator Building, Room D/G-1, El. 121'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
MO-0-33-0498 (AWC U0-1)	ESW Return to Discharge Pond	(08a) Motor Operated Valves	Diesel Generator Building, Room D/G-2, El. 121'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
MO-2-32-2486 (AWC U0-1)	HPSW Return Valve to Discharge Pond	(08a) Motor Operated Valves	Diesel Generator Building, Room D/G-2, El. 121'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0AP060 (AWC U2-2)	E1 D/G Fuel Oil Transfer Pump	(05) Horizontal Pumps	Diesel Generator Building, Room D/G-3, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
TCV-052E-7239A (AWC U0-2)	D/G Jacket Coolant 3-Way Thermostatic Control Valves	(07) Fluid (Air/Hyd) Valves	Diesel Generator Building, Room D/G-3, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.

Table F.3-1. Table of SWC and AWC Samples from Seismic Walkdown

Equipment ID (Applicable Area Walkby)	Description	Equipment Class	Location	Observations
0AC097 (AWC U0-2)	Diesel Generator OAG12 Control Panel	(20) Control Panels & Cabinets	Diesel Generator Building, Room D/G-3, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0AT096 (AWC U0-2)	E1 Diesel Generator Lube Oil Storage Tank	(21) Tanks or Heat Exchangers	Diesel Generator Building, Room D/G-3, El. 127'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
0BK032 (AWC U0-3)	Emergency Cooling Tower Fan B	(09) Fans	Emergency Cooling Towers, Room ECT-6, El. 195'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
MO-48-0501A (AWC U0-4)	ESW A Inlet to ECT Reservoir	(08a) Motor Operated Valves	Emergency Cooling Towers, Room ECT-1, El. 114'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
M02-48-2804A (AWC U0-5)	HPSW Discharge Inlet Outer Valve	(08a) Motor Operated Valves	Emergency Cooling Towers, Room ECT-1, El. 114'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
20Y050 (AWC U2-1)	120V AC Distribution Panel 2C	(14) Distribution Panels	Turbine Building, Room T2-81, El. 150'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.

Table F.3-1. Table of SWC and AWC Samples from Seismic Walkdown

Equipment ID (Applicable Area Walkby)	Description	Equipment Class	Location	Observations
20C722A (AWC U2-2)	Accident Monitoring Instrumentation Panel	(20) Control Panels & Cabinets	Turbine Building, Room T2-81, El. 150'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
2AD025 (AWC U2-2)	125VDC Distribution Panel	(14) Distribution Panels	Turbine Building, Room T2-81, El. 150'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.
20C39 (AWC U2-2)	HPCI Relay Cabinet	(20) Control Panels & Cabinets	Turbine Building, Room T2-81, El. 150'	No issues with the SWC or AWC applicable to this equipment or its conclusions were identified.

Peer Reviewer: Patrick Butler Date 10/16/2012

F.4

Review of Licensing Basis Evaluations

There were no instances identified during the walkdowns where evaluated components could not readily be shown to meet the plant seismic licensing basis. Accordingly, no licensing basis evaluations to determine if equipment complied with current seismic licensing basis requirements were required. However, there were some anomalies or conditions adverse to quality that were identified during the walkdowns. Tables 5-2 and 5-3 in the main body of the report provide a list of the anomalies encountered during the Unit 2 seismic walkdown inspections and how they were addressed.

Peer Reviewer: Patrick Butler Date 10/16/2012

F.5 References

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

Attachment 1: Peer Review Checklist for SWEL

Peer Review Checklist for SWEL - Peach Bottom Atomic Power Station Unit 2

Instructions for Completing Checklist

This peer review checklist may be used to document the review of the Seismic Walkdown Equipment List (SWEL) in accordance with Section 6: Peer Review. The space below each question in this checklist should be used to describe any findings identified during the peer review process and how the SWEL may have changed to address those findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Were the five safety functions adequately represented in the SWEL 1 selection? Y☒ N☐
   All five safety functions were included in the SWEL Selection.

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

   a. Various types of systems? Y☒ N☐
      A wide variety of systems were represented including Residual Heat Removal, Reactor Core Isolation Cooling, Core Spray, High Pressure Coolant Injection, Control Drive Hydraulic, High Pressure Service Water, 125 VDC, 120 VAC, 480 VAC.

   b. Major new and replacement equipment? Y☒ N☐
      Due to the significant number of modifications performed in the late 1990's as part of the USI A-46 (SQUG) and IPEEE programs, PBAPS Unit 2 has not made significant modifications to Seismic Class I equipment within the last several years. Accordingly, SWEL 1 does not identify any new or replacement components.

   c. Various types of equipment? Y☒ N☐
      All of the EPRI equipment classes are represented with the exception of Classes #11 Chillers, #12 Air Compressors, and #13 Motor Generators. No Seismic Class I equipment in these three classes were identified at PBAPS Unit 2. There is no Class 2, Low Voltage Switchgear (LVS) equipment in the Unit 2 SWEL, but there is one Class 2 LVS in the Unit 0 (common) SWEL, which has been deferred.

   d. Various environments? Y☒ N☐
      Equipment in various environments including the Reactor Building, Control Structure, Screen House, Pump Structure, Turbine Building, Diesel Generator Building and Drywell are included.

   e. Equipment enhanced based on the findings of the IPEEE (or equivalent) program? Y☒ N☐
      The Unit 2 SWEL includes a sample of equipment items that were enhanced based on findings of the USI A-46 (SQUG) and IPEEE programs (see Sections 4.2 and 7 of the Report).

f. Were risk insights considered in the development of SWEL 1? Y☒ N☐

The plant Probabilistic Risk Assessment (PRA) was reviewed and used to guide selection of the components on SWEL 1. Specifically, the relative risk significance of candidate components including the Risk Achievement Worth (RAW) and Fussell-Vesely importance for a Loss of Off-Site Power (LOOP) scenario from the internal plant PRA were used (See Section 4.2 of the report).

3. For SWEL 2:

a. Were spent fuel pool related items considered, and if applicable included in SWEL 2? Y☒ N☐

Both parts of SWEL 2, assessment of Seismic Class I spent fuel pool (SFP) related equipment and equipment that could potentially result in rapid drain-down of the SFP were considered. There is no equipment in either category. See documentation of SFP item review in Section 4.3 of the Report.

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

As noted in Section 4.3 of the report, there is no Seismic Class I spent fuel pool related equipment.

Section 4.3 also includes appropriate justification that there are no items of equipment that could cause rapid drain-down due to lack of penetrations within about 10 feet above the top of the fuel racks, and there are adequate anti-syphon features included in piping that terminate within a few feet of the tops of the fuel racks.

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

The Peer Review team had no comments on the SWEL.

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

Peer Review Checklist for SWEL - Peach Bottom Atomic Power Station Unit 2

Patrick Butler, P.E.

Peer Reviewer #1: Patrick Butler Date: *10/16/2012*

Craig Swanner, P.E.

Peer Reviewer #2: Date: *10/16/2012*