

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-054**Equipment ID No. 0023CRFEquip. Class<sup>1</sup> 10Equipment Description CONTAINMENT RECIRC FAN 23Location: Bldg. VCFloor El. 68'-0"

Room, Area \_\_\_\_\_

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   
*The anchorage is free of bent, broken, missing and loose hardware.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*Observed surface oxidation on the vibration isolators judged to be ok.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*No significant cracks found.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-054**Equipment ID No. 0023CRFEquip. Class<sup>1</sup> 10Equipment Description CONTAINMENT RECIRC FAN 23

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 *The anchorage is free of potentially adverse seismic conditions.***Interaction Effects**

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

Y  N  U  N/A *Soft targets are free from impact by nearby equipment or structures.*

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

Y  N  U  N/A *Overhead equipment, distribution systems and lighting are not likely to collapse onto the equipment.*

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

Y  N  U  N/A *Attached lines have adequate flexibility.*

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

Y  N  U *The equipment is free of potentially adverse seismic interaction.*

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-054

Equipment ID No. 0023CRF

Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 23

**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

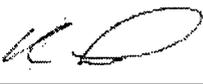
*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Reference Drawings: 9321-F-2710-04 Rev 04, (A200746)  
Reference AWC-044*

*Observed piping near 23CRF that is rusted. This is being addressed in CR-IP2-2014-01653. The CR indicated that this is a surface condition only and does not impact component or system pressure boundry, structural integrity, or design fuctions.*

Evaluated by: Maggie Staub  Date: 3/6/14

Kai Lo  3/6/14

Status: Y  N  U

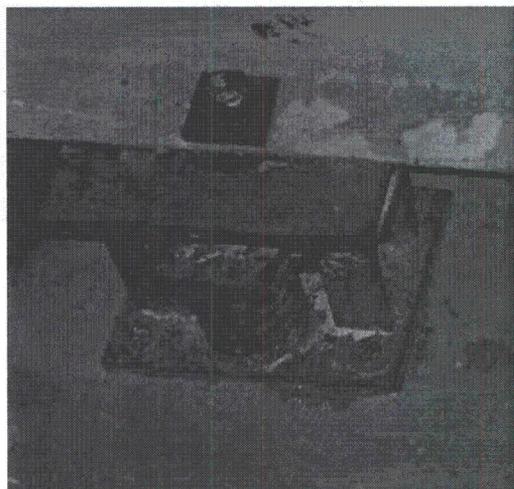
Seismic Walkdown Checklist (SWC) SWEL1-054

Equipment ID No. 0023CRF

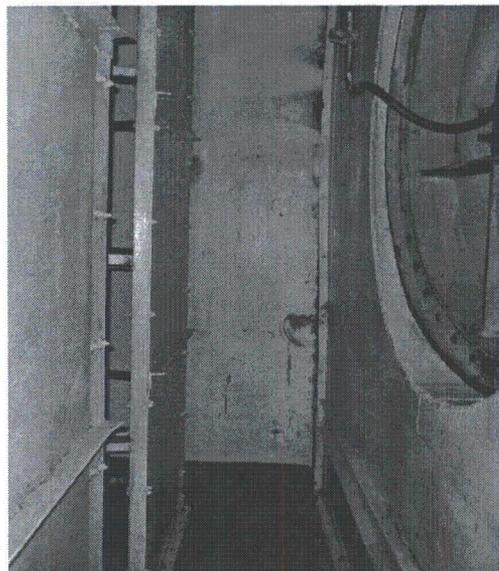
Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 23

**Photographs**



**Note:** *vibration isolator with surface oxidation*



**Note:** *interior of 23CRF*

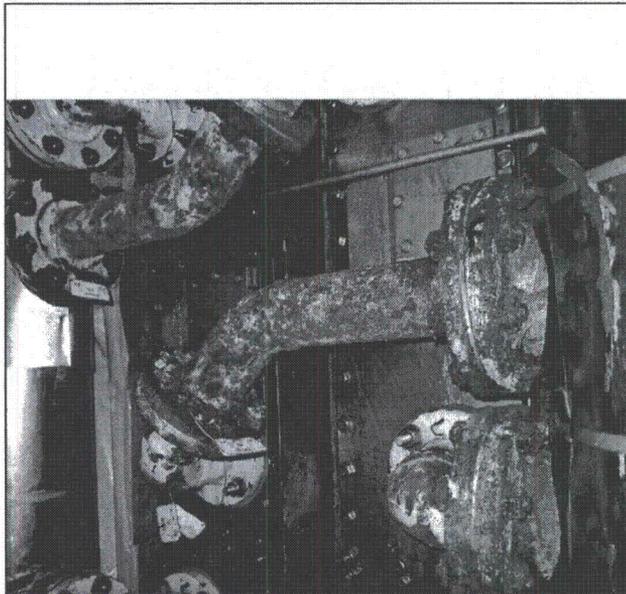
Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-054

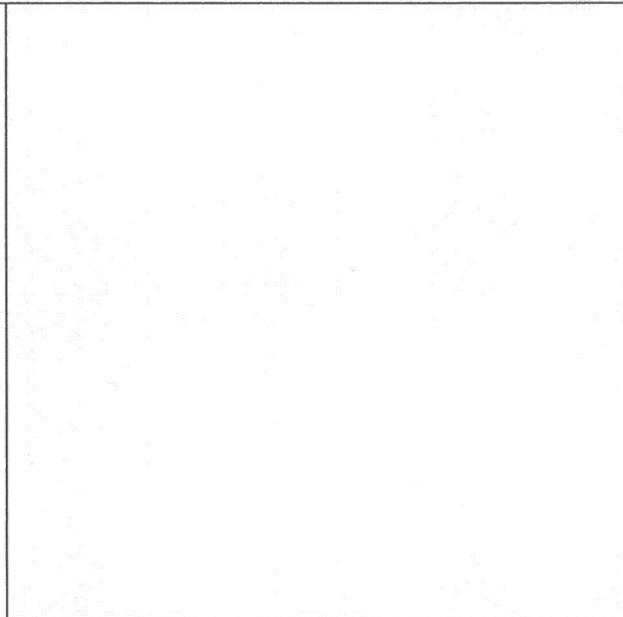
Equipment ID No. 0023CRF

Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 23



**Note:** *rusted piping*



**Note:** *no other photos.*

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-055**Equipment ID No. 0024CRFEquip. Class<sup>1</sup> 10Equipment Description CONTAINMENT RECIRC FAN 24Location: Bldg. VCFloor El. 68'-0"

Room, Area \_\_\_\_\_

Manufacturer, Model, Etc. (optional but recommended) \_\_\_\_\_

**Instructions for Completing Checklist**

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**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

*Anchorage for all compartments are OK. Intend plenum anchorage for the fan in HEPA filter room has only 13 bolts out of 28 bolt holes. One of the remaining bolts is slightly bent. A comparison with 23CRF shows that original design has 16 bolts. CR-IP2-2014-01662 has been generated to address this condition. LB-17 assessed this condition and determined that the remaining bolts are adequate.*

*The fan circular wire screen is missing one bolt. Currently the cover is held by 3 bolts. CR-IP2-2014-01662 has been generated to address this condition.*

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

*Vibration isolators have surface oxidation.*

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

*No cracks in the concrete near anchors.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-055**Equipment ID No. 0024CRFEquip. Class<sup>1</sup> 10Equipment Description CONTAINMENT RECIRC FAN 24

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

*The anchorage is free of potentially adverse seismic conditions. See  
item #2.*

**Interaction Effects**

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

*Soft targets are free from impact by nearby equipment.*

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 equipment, distribution systems and lighting are not likely to  
collapse onto the equipment.*

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

*Attached lines have adequate flexibility.*

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

*The equipment is free of potentially adverse seismic interaction.*

Status: Y  N  U

**Seismic Walkdown Checklist (SWC) SWEL1-055**

Equipment ID No. 0024CRF

Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 24

**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

*We have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Reference Drawings: 9321-F-2710-04, Rev 04 (A200746)  
AWC-045*

Evaluated by: Maggie Staub  Date: 3/6/14

Kai Lo  3/6/14

Status: Y  N  U

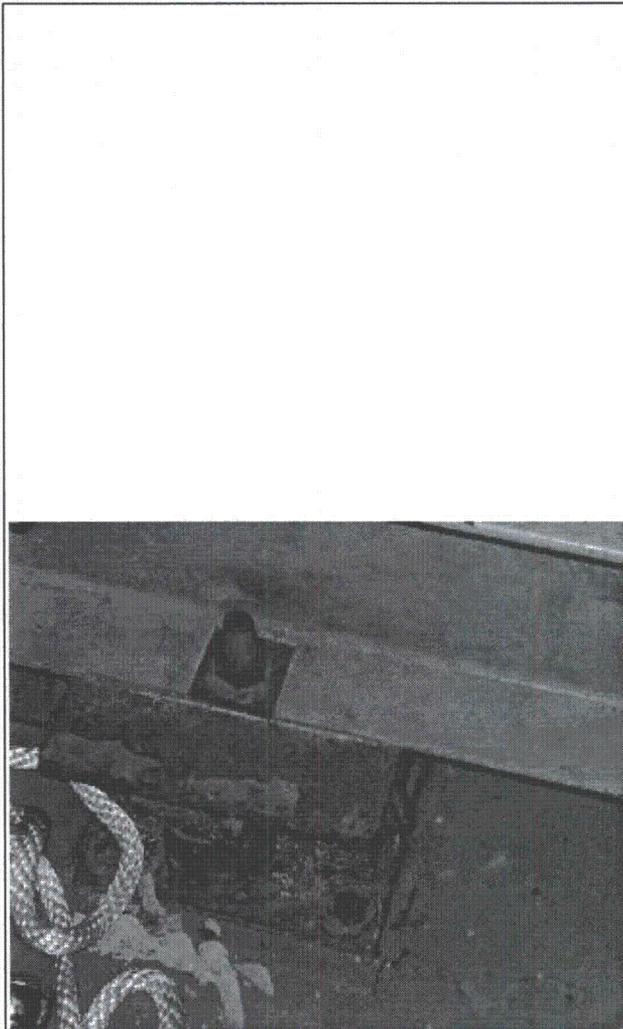
Seismic Walkdown Checklist (SWC) SWEL1-055

Equipment ID No. 0024CRF

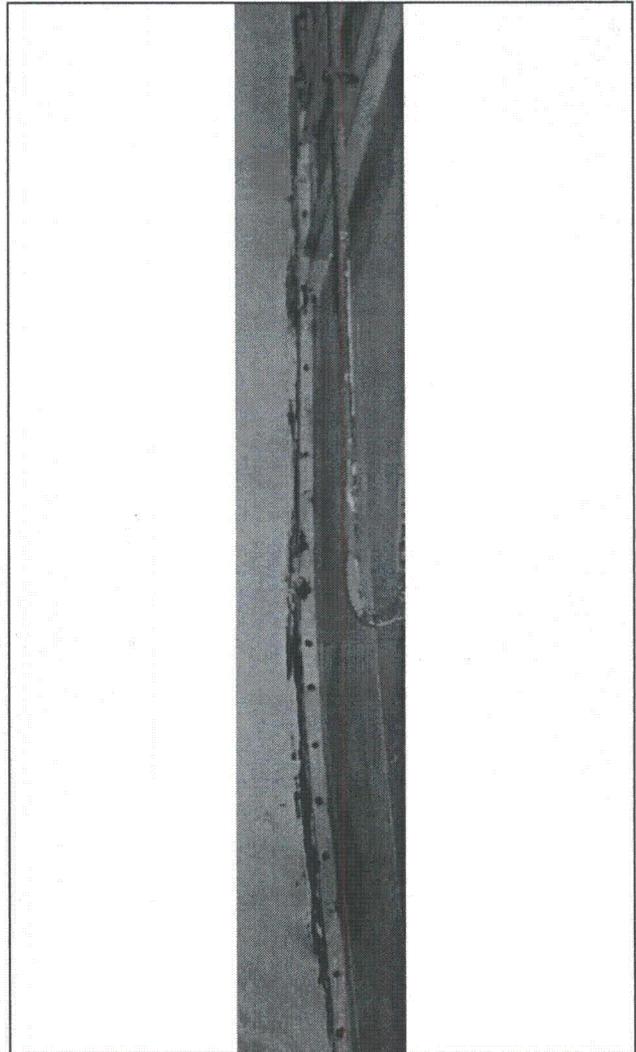
Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 24

**Photographs**



**Note:** *isolator with surface oxidation*



**Note:** *Steel face for the fan in HEPA filter room with missing bolts*

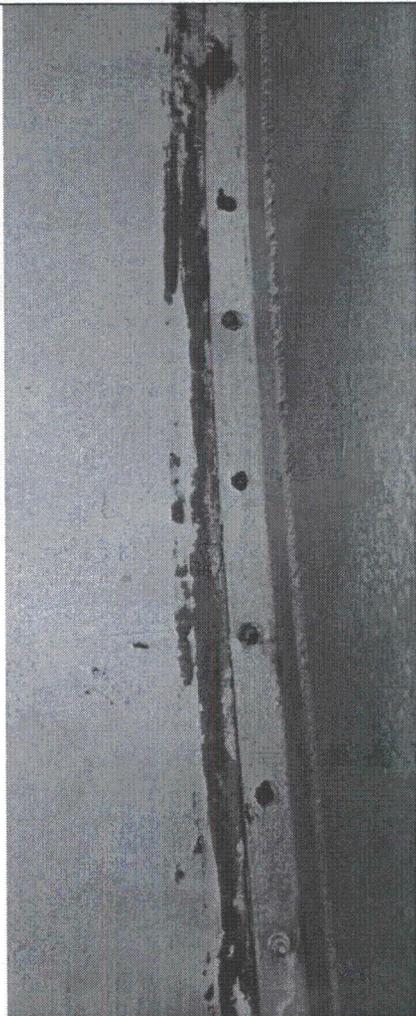
Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-055

Equipment ID No. 0024CRF

Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 24



**Note:** *Steel face for the fan in HEPA filter room with missing bolts*



**Note:** *slightly bent bolt*

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-056**Equipment ID No. 0025CRFEquip. Class<sup>1</sup> 10Equipment Description CONTAINMENT RECIRC FAN 25Location: Bldg. VCFloor El. 68'-0"

Room, Area \_\_\_\_\_

Manufacturer, Model, Etc. (optional but recommended) \_\_\_\_\_

**Instructions for Completing Checklist**

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**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   
*Anchorage verification is not required.*
  
2. Is the anchorage free of bent, broken, missing or loose hardware? Y  N  U  N/A   
*The anchorage is free of bent, broken, missing and loose hardware.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*Inside of closure observed mild oxidation on several isolator supports (see attached photos)*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*Anchorage is free of visible cracks.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-056**Equipment ID No. 0025CRFEquip. Class<sup>1</sup> 10Equipment Description CONTAINMENT RECIRC FAN 25

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

*The anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

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

*Soft targets are free from impact by nearby equipment and structures.*

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 equipment, distribution systems, lighting and walls are not  
likely to collapse.*

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

*Attached line have adequate flexibility.*

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

*The equipment is free of adverse seismic interaction effects.*

Status: Y  N  U

**Seismic Walkdown Checklist (SWC) SWEL1-056**

Equipment ID No. 0025CRF

Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 25

**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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Reference Drawings: 9321-F-2710-04 Rev 04 (A200746)  
Reference AWC-046*

Evaluated by: Maggie Staub  Date: 3/5/14

Kai Lo  3/5/14

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-056

Equipment ID No. 0025CRF

Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 25

**Photographs**



**Note:** *mild oxidation on isolator*



**Note:** *mild oxidation on isolator*

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-056

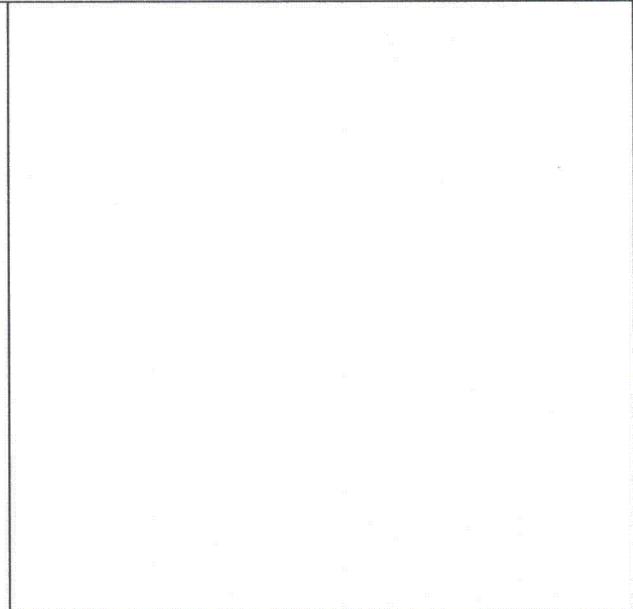
Equipment ID No. 0025CRF

Equip. Class<sup>1</sup> 10

Equipment Description CONTAINMENT RECIRC FAN 25



**Note:** *mild oxidation on isolator*



**Note:** *no other photos.*

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-063**Equipment ID No. IBUS21Equip. Class<sup>1</sup> 14Equipment Description 118 VAC INSTR BUS 21Location: Bldg. CBFloor El. 53'-0"

Room, Area \_\_\_\_\_

Manufacturer, Model, Etc. (optional but recommended) \_\_\_\_\_

**Instructions for Completing Checklist**

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**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   
*The anchorage is free of bent, broken, missing and loose hardware.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*The anchorage is free of corrosion.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*Panel is bolted to steel.*

<sup>1</sup> Enter the equipment class name from EPRI I025286, Appendix B: Classes of Equipment.

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-063**Equipment ID No. IBUS21Equip. Class<sup>1</sup> 14Equipment Description 118 VAC INSTR BUS 21

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 *The anchorage is free of potentially adverse seismic conditions.***Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  
*Soft targets are free from impact by nearby equipment and 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?  
*Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.*

Y  N  U  N/A 

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

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 *The equipment is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

**Seismic Walkdown Checklist (SWC) SWEL1-063**

Equipment ID No. IBUS21

Equip. Class<sup>1</sup> 14

Equipment Description 118 VAC INSTR BUS 21

**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

*Observed red screen door inside the supervisory panel that was not secured (see attached photo). During a seismic event, the door may move and strike the sensitive equipment inside the panel. This is documented in CR-IP2-2014-01660.*

*It was indicated that the door will be placed back into its original location and secured once the work on a specific component is done.*

*Observed a portable light fixture with cord resting on the floor inside the supervisory panel (see attached photo). During a seismic event, the light fixture may move and strike nearby sensitive equipment. This is addressed in CR-IP2-2014-01660.*

*Observed a broken and bent plastic wireway inside SL compartment of the supervisory panel (see attached photo). This is a housekeeping matter that has no adverse affect on the safety function of the equipment and is addressed in CR-IP2-2014-01660.*

**Comments** (Additional pages may be added as necessary)

Ref.: AWC-037

Evaluated by: Maggie Staub  Date: 3/7/14

Kai Lo  3/7/14

Status: Y  N  U

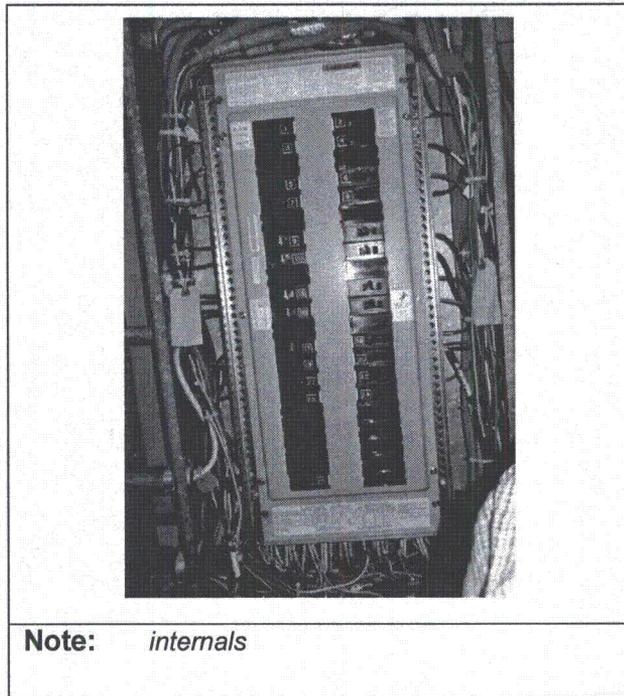
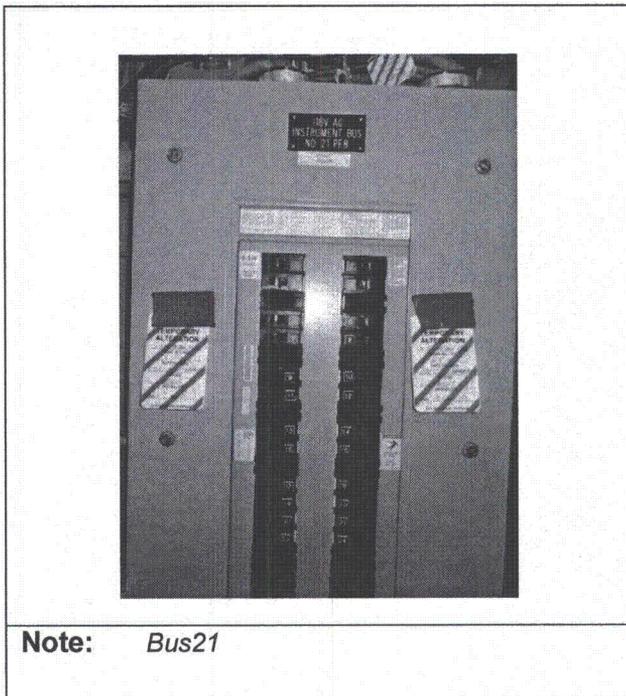
Seismic Walkdown Checklist (SWC) SWEL1-063

Equipment ID No. IBUS21

Equip. Class<sup>1</sup> 14

Equipment Description 118 VAC INSTR BUS 21

**Photographs**



Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-063

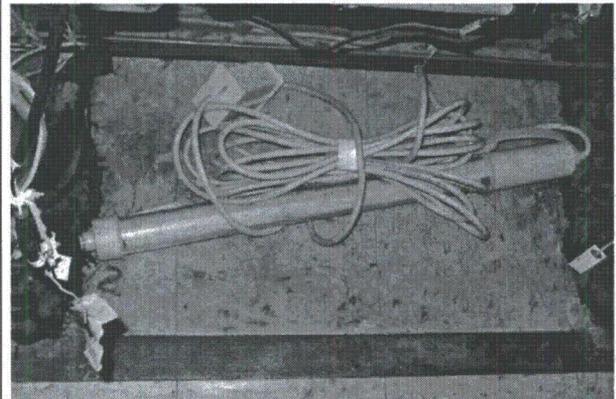
Equipment ID No. IBUS21

Equip. Class<sup>1</sup> 14

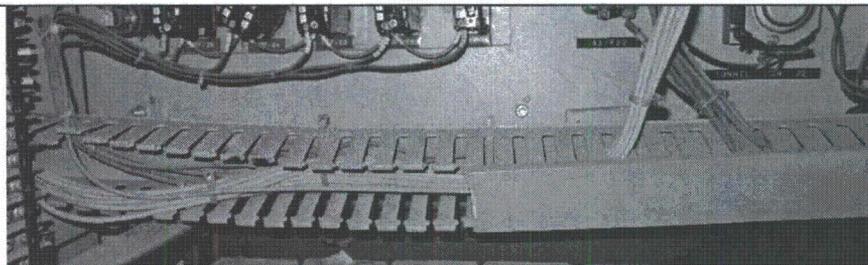
Equipment Description 118 VAC INSTR BUS 21



**Note:** red screen door inside supervisory panel



**Note:** light fixture inside supervisory panel



**Note:** broken/bent wireway inside on SL panel

**Note:** no other photos.

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-064**Equipment ID No. DPNL22Equip. Class<sup>1</sup> 14Equipment Description 125 VDC DISTRIBUTION PNL 22 PC4Location: Bldg. CBFloor El. 53'-0"

Room, Area \_\_\_\_\_

Manufacturer, Model, Etc. (optional but recommended) \_\_\_\_\_

**Instructions for Completing Checklist**

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**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   
*No documentation available for anchorage.*
  
2. Is the anchorage free of bent, broken, missing or loose hardware? Y  N  U  N/A   
*Observed four approximately 1/2" diameter bolts. The bolts are spaced at 17" in the horizontal direction and 44" in the vertical direction.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*The anchorage is free of corrosion.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*Mounted to panel frame*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-064**Equipment ID No. DPNL22Equip. Class<sup>1</sup> 14Equipment Description 125 VDC DISTRIBUTION PNL 22 PC4

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.)  
*See #1* Y  N  U  N/A

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

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  
*Soft targets are free from impact.* 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?  
*Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse.* Y  N  U  N/A

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

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

Status: Y  N  U

**Seismic Walkdown Checklist (SWC) SWEL1-064**

Equipment ID No. DPNL22

Equip. Class<sup>1</sup> 14

Equipment Description 125 VDC DISTRIBUTION PNL 22 PC4

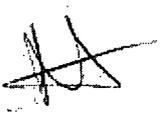
**Other Adverse Conditions**

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

*We have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Ref: AWC-037*

Evaluated by: Maggie Staub  Date: 3/7/14

Kai Lo  3/7/14

Status: Y  N  U

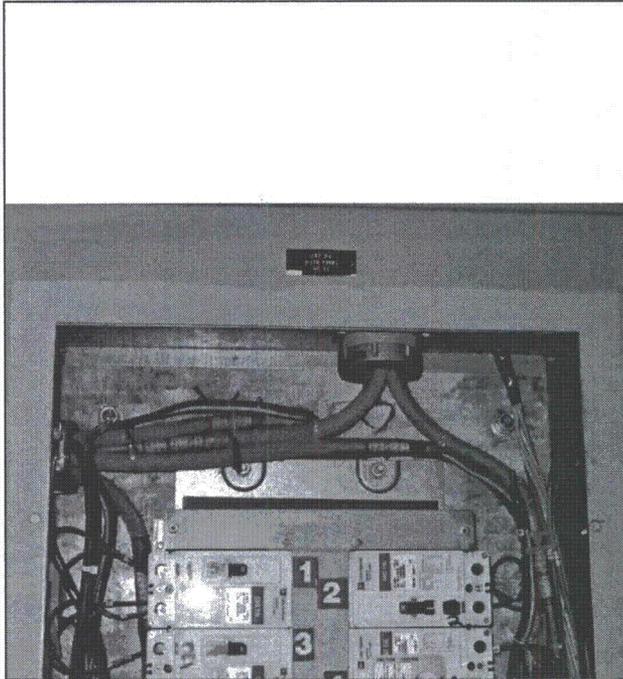
Seismic Walkdown Checklist (SWC) SWEL1-064

Equipment ID No. DPNL22

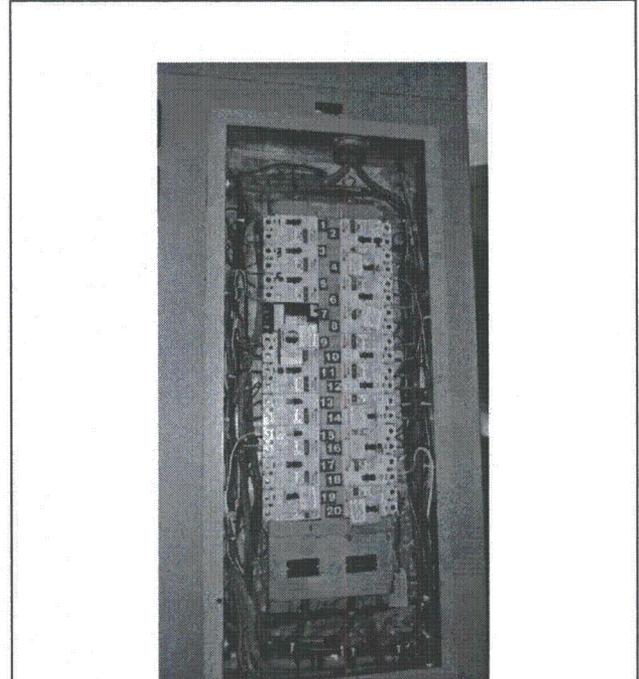
Equip. Class<sup>1</sup> 14

Equipment Description 125 VDC DISTRIBUTION PNL 22 PC4

**Photographs**



**Note:** PNL 22



**Note:** internals

Status: Y  N  U

R1

**Seismic Walkdown Checklist (SWC) SWEL1-067**

Equipment ID No. EDC1 Equip. Class<sup>1</sup> 14

Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCH

Location: Bldg. CB Floor El. 33'-0" Room, Area \_\_\_\_\_

Manufacturer, Model, Etc. (optional but recommended) \_\_\_\_\_

**Instructions for Completing Checklist**

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**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

*No, the anchorage configuration verification is not required.*

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

*Anchorage external to cabinet checked and found to be free of bent, broken, missing or loose hardware.*

*Cabinet door was opened on 2/28/14 and anchorage is free of bent, broken, missing or loose hardware.*

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

*Anchorage is free of corrosion that is more than mild surface oxidation.*

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

*External anchorage is free of significant visible cracks in the masonry wall near the anchors.*

R1

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-067**Equipment ID No. EDC1Equip. Class<sup>1</sup> 14Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCH

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

*Not applicable since component is not part of the anchorage configuration verification.*

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

*The anchorage is free of potentially adverse seismic conditions.*

R1

**Interaction Effects**

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

*Yes soft targets are free from impact by nearby equipment or structures.*

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

*Block wall is seismicly qualified by Computech report No. R547.01.*

*Fluorescent bulbs need to be secured to fixtures with wires. CR IP2-2012-06120 tracks installation of wires to tie florescent bulb to fixture. It is judged the hard target inverter will remain operable if the florescent bulbs were to fall on it.*

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

*Yes attached lines have adequate flexibility to avoid damage.*

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

*Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-067

Equipment ID No. EDC1

Equip. Class<sup>1</sup> 14

Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCH

**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

*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*References: Drawings and AWC*

*Drawings: A206648, Rev 46, Conduit layout Control building, elev. 33' plan west half*

*AWC-004*

Evaluated by: Maggie Staub  Date: 2/28/14

Kai Lo  2/28/14

R1

Status: Y  N  U

R1

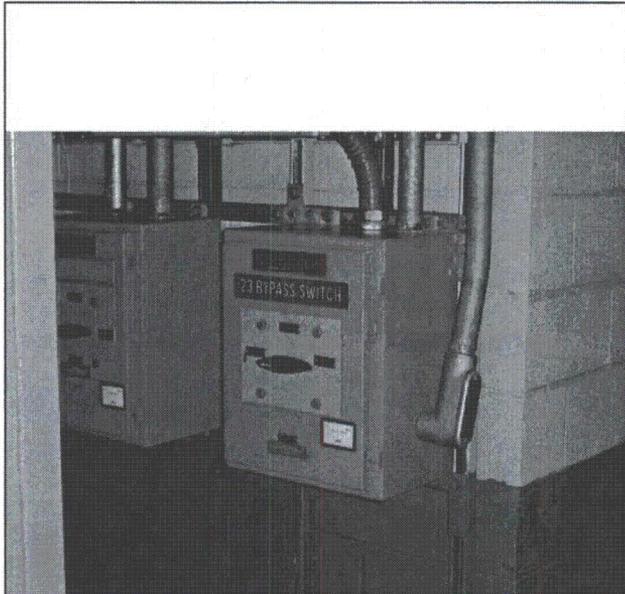
Seismic Walkdown Checklist (SWC) SWEL1-067

Equipment ID No. EDC1

Equip. Class<sup>1</sup> 14

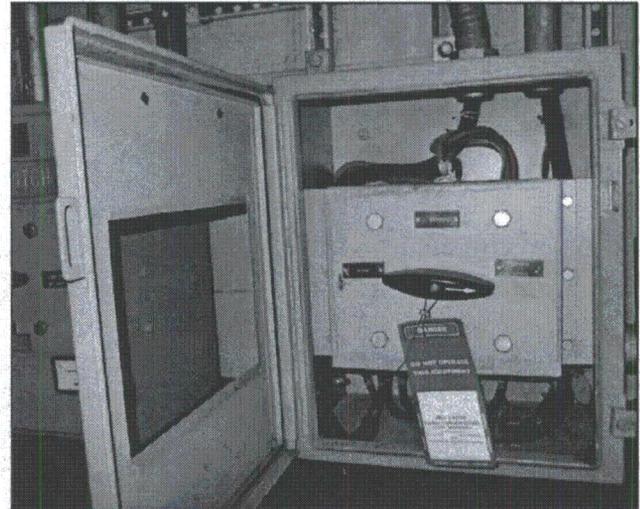
Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCH

**Photographs**



**Note:**

*STATIC INV #23 MANUAL BY-PASS SWITCH*



R1

**Note:**

*STATIC INV #23 MANUAL BY-PASS SWITCH  
interal components*

Status: Y  N  U

R1

**Seismic Walkdown Checklist (SWC) SWEL1-072**

Equipment ID No. MI9

Equip. Class<sup>1</sup> 16

Equipment Description BATTERY CHARGER 21

Location: Bldg. CB

Floor El. 33'-0"

Room, Area \_\_\_\_\_

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

*Yes the anchorage configuration verification is required.*

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

*Cabinet doors were opened on 3/4/14 and internal components were inspected. Yes the anchorage is free of bent, broken, missing or loose hardware.*

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

*Yes the anchorage is free of corrosion that is more than mild surface oxidation.*

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

*Yes, the anchorage is free of visible cracks in the concrete near the anchor.*

R1

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U 

R1

Seismic Walkdown Checklist (SWC) SWEL1-072Equipment ID No. MI9Equip. Class<sup>1</sup> 16Equipment Description BATTERY CHARGER 21

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.)

*Anchorage matches drawing 011D13800.*

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

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

*Gap between the cabinet and adjacent frame west of the cabinet is 0.5". This seismic separation requires analysis to determine adequacy. LB-08 concluded that the existing gap is acceptable.*

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

*Floresent bulbs overhead are unsecured and could fall out of the light fixture. Hard target cabinet will protect internals from damage. Judged acceptable. CR IP2-2012-06120 tracks installation of wires to tie florescent bulb to fixture for good seismic housekeeping.*

*Masonry block wall is seismically qualified by Computech Report no. R547.01 as discussed in SQUG SEWS.*

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

*Yes attached lines have adequate flexibility to avoid damage.*

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

*The equipment is free of potentially adverse seismic interaction.*

R1

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-072

Equipment ID No. MI9

Equip. Class<sup>1</sup> 16

Equipment Description BATTERY CHARGER 21

**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

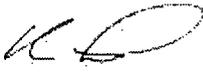
*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

References: Drawings and AWC  
Drawings: A206640, Rev 10. Arrangement of equipment in cable spreading room, elev. 33'  
011D13800, Rev 7. Outline for the battery charger 22,24,21 and 23.  
AWC-004

Evaluated by: Maggie Staub  Date: 3/4/14

R1

Kai Lo  3/4/14

Status: Y  N  U

R1

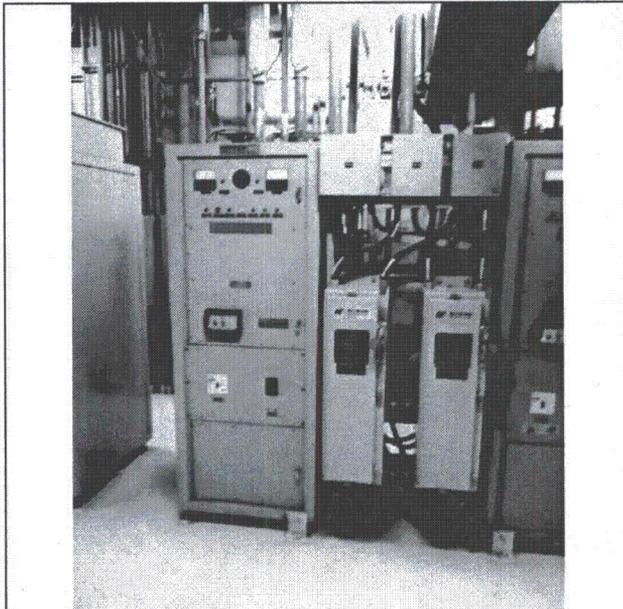
Seismic Walkdown Checklist (SWC) SWEL1-072

Equipment ID No. MI9

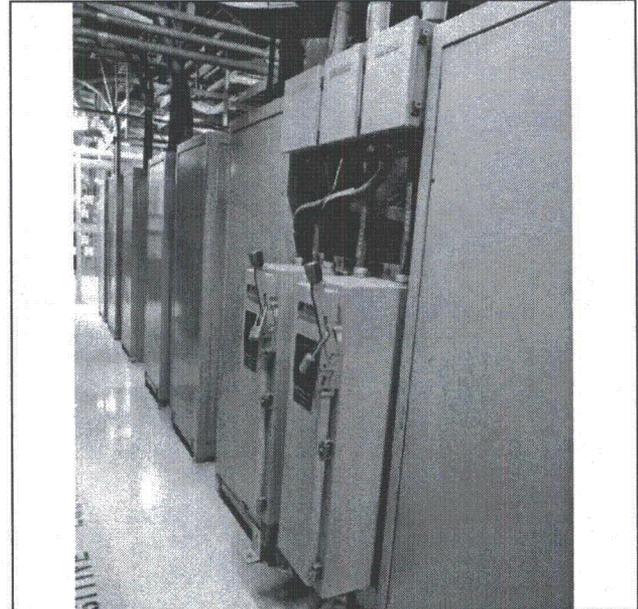
Equip. Class<sup>1</sup> 16

Equipment Description BATTERY CHARGER 21

**Photographs**



**Note:** Battery charger 21



**Note:** Battery charger 21 is cabinet on right

Status: Y  N  U

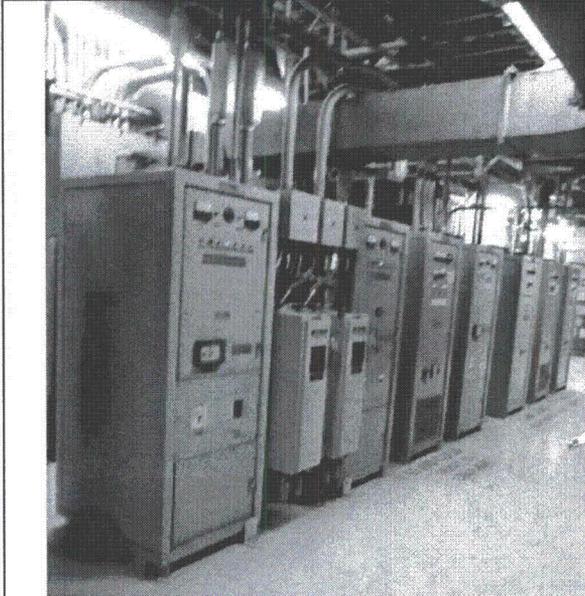
R1

Seismic Walkdown Checklist (SWC) SWEL1-072

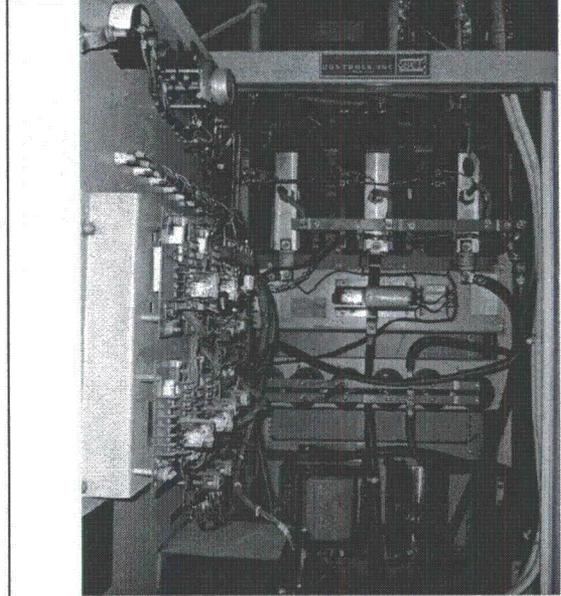
Equipment ID No. MI9

Equip. Class<sup>1</sup> 16

Equipment Description BATTERY CHARGER 21

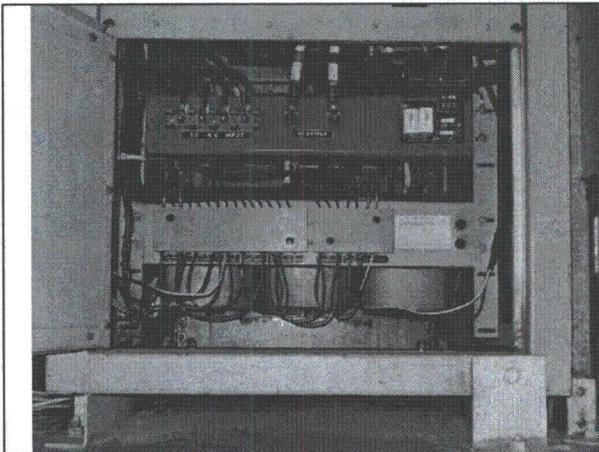


**Note:** Battery charger 21

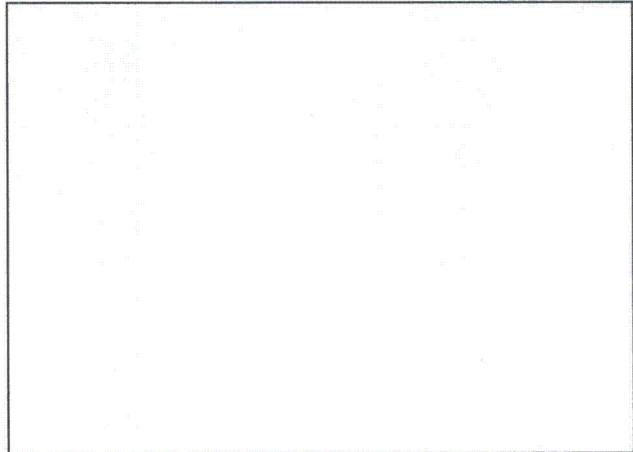


**Note:** internal componenets (top)

R1



**Note:** internal componenets (bottom)



**Note:** no other photos.

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-073**Equipment ID No. EGA3Equip. Class<sup>1</sup> 16Equipment Description BATTERY CHARGER 24Location: Bldg. CBFloor El. 33'-0"

Room, Area \_\_\_\_\_

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

*Yes the anchorage configuration verification is required.*

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

*Cabinet doors were opened on 3/4/13 and anchorage of internal component was inspected.*

*Anchorage of cabinet to concrete floor is external to cabinet and was inspected.*

*Internal and external anchorage are free of bent, broken, missing and loose hardware.*

R1

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

*Yes the anchorage is free of corrosion that is more than mild surface oxidation.*

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

*Yes, the anchorage is free of visible cracks in the concrete near the anchor.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-073

Equipment ID No. EGA3

Equip. Class<sup>1</sup> 16

Equipment Description BATTERY CHARGER 24

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.)

*One Hilti anchor bolt is 3/8" diameter not 1/2 per DWG 011D13800-7. Smaller anchor bolt was documented by SQUG (SEWS) and is therefore seismically acceptable.*

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

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

*Yes soft targets are free from impact by nearby equipment or structures.*

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

*Masonry wall is qualified by computech report no. R547.*

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

*Yes attached lines have adequate flexibility to avoid damage.*

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

*Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-073

Equipment ID No. EGA3

Equip. Class<sup>1</sup> 16

Equipment Description BATTERY CHARGER 24

**Other Adverse Conditions**

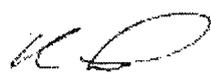
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y  N  U

*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

References: Drawings and AWC  
Drawings: 011D13800, Rev 7, Outline for battery charger 22,24,21 & 23  
A206640, Rev 10, Arrangement of equipment in cable spreading room elev. 33'  
AWC-004

Evaluated by: Maggie Staub  Date: 3/4/14

Kai Lo  3/4/14

R1

Status: Y  N  U

R1

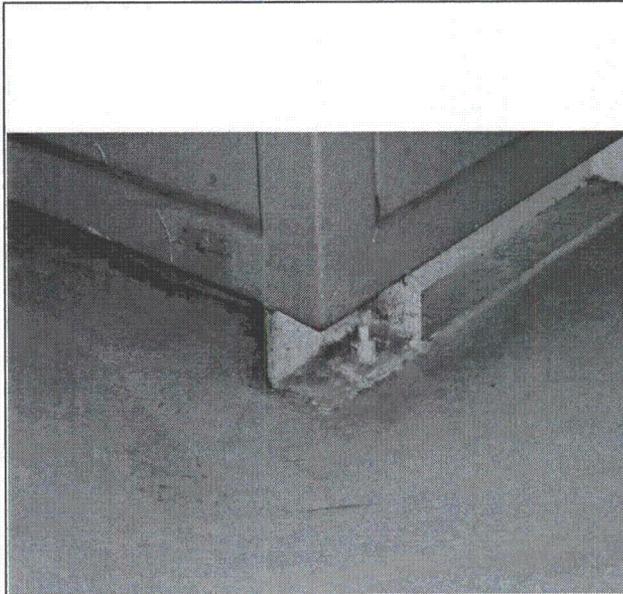
Seismic Walkdown Checklist (SWC) SWEL1-073

Equipment ID No. EGA3

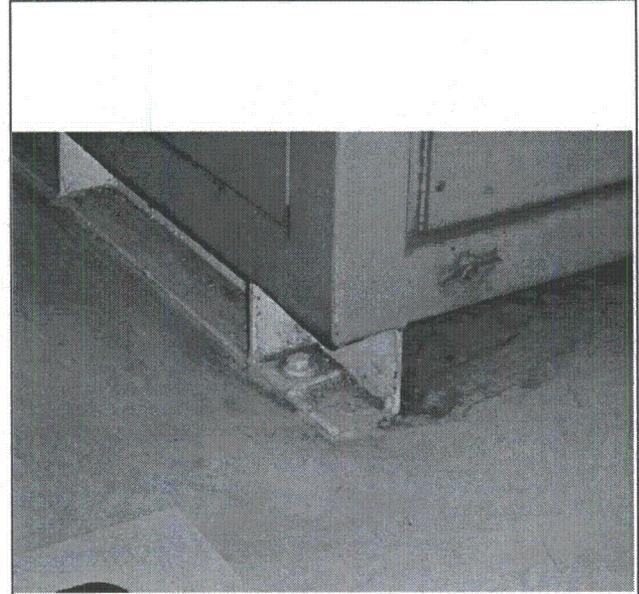
Equip. Class<sup>1</sup> 16

Equipment Description BATTERY CHARGER 24

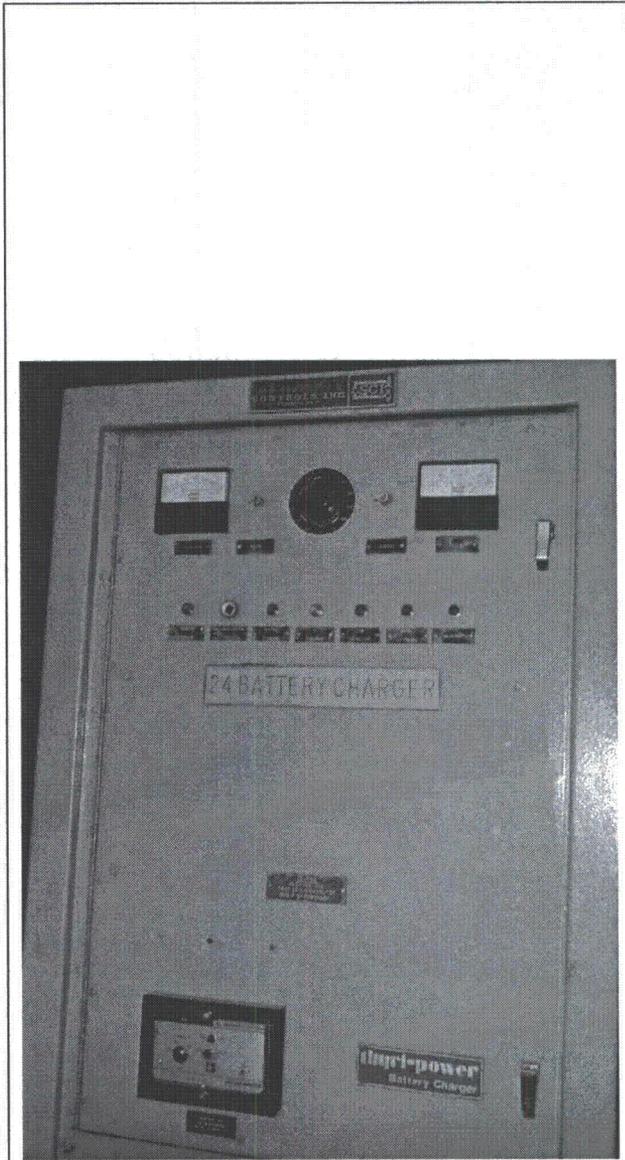
**Photographs**



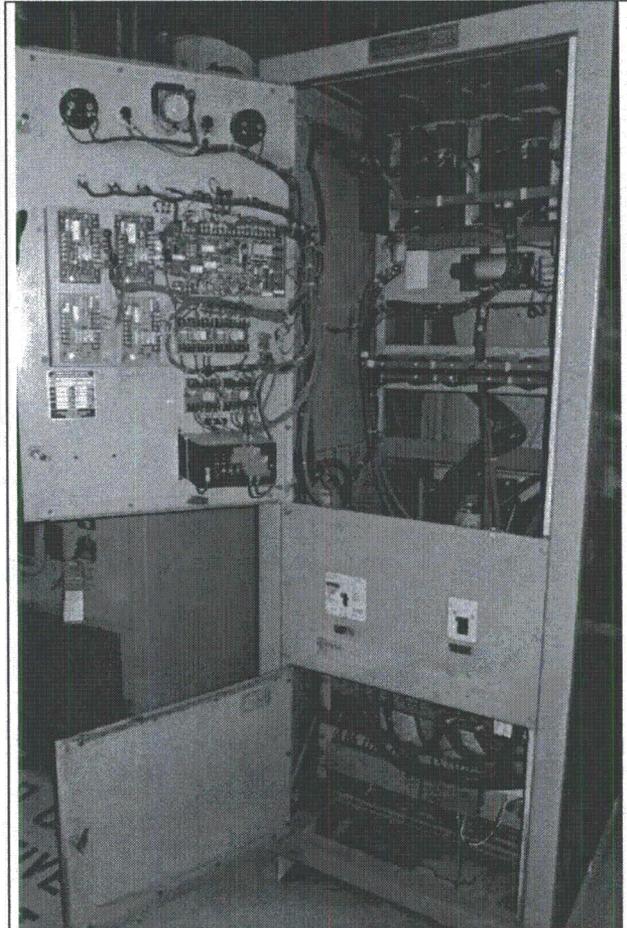
**Note:** *3/8" anchor on north-west corner*



**Note:** *North-east corner*



**Note:** Battery Charger 24



**Note:** Internal components

R1

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-074**Equipment ID No. EGA1Equip. Class<sup>1</sup> 16Equipment Description 10 KVA STATIC INVERTER #21Location: Bldg. CBFloor El. 33'-0"

Room, Area \_\_\_\_\_

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

*Yes the anchorage configuration verification is required.*

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

*Anchorage of internal components to cabinet inspected on 3/7/14 and found OK.*

*Anchorage of cabinet to concrete floor is external to cabinet and was inspected.*

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

*Yes the anchorage is free of corrosion that is more than mild surface oxidation.*

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

*Yes, the anchorage is free of visible cracks in the concrete near the anchor.*

R1

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-074**Equipment ID No. EGA1Equip. Class<sup>1</sup> 16Equipment Description 10 KVA STATIC INVERTER #21

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 

*Anchorage matches description provided in SQUG (SEWS) and  
DWG 011D13800-7.*

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

Y  N  U 

*Yes based on the above anchorage evaluations, the anchorage is  
free of potentially adverse seismic conditions.*

**Interaction Effects**

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

Y  N  U  N/A 

*Yes soft targets are free from impact by nearby equipment or  
structures.*

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

Y  N  U  N/A 

*Masonry wall qualified by computech report no. R547.01 per SQUG  
(SEWS).*

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

Y  N  U  N/A 

*Yes attached lines have adequate flexibility to avoid damage.*

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

Y  N  U 

*Yes based on the above seismic interaction evaluations, the equipment  
is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-074

Equipment ID No. EGA1

Equip. Class<sup>1</sup> 16

Equipment Description 10 KVA STATIC INVERTER #21

**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

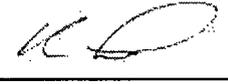
*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

References: Drawings and AWC  
Drawings: A206640, Rev 10, arrangement of equipment in cable spreading room elev. 33'  
AWC-004

Evaluated by: Maggie Staub  Date: 3/7/14

R1

Kai Lo  3/7/14

Status: Y  N  U

R1

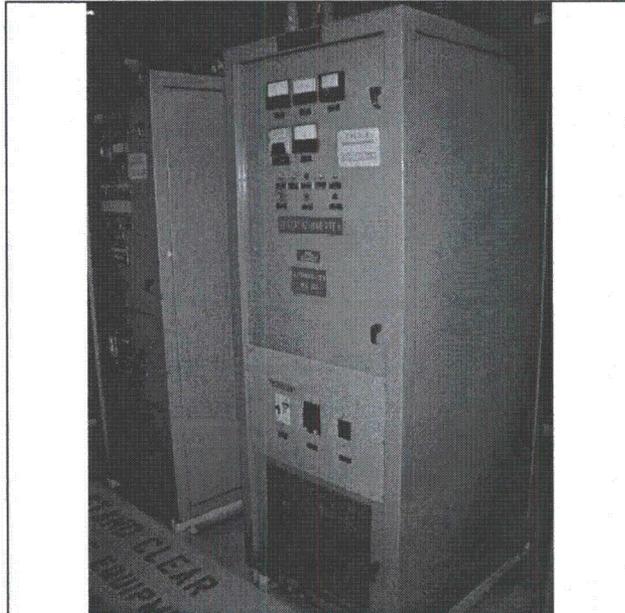
Seismic Walkdown Checklist (SWC) SWEL1-074

Equipment ID No. EGA1

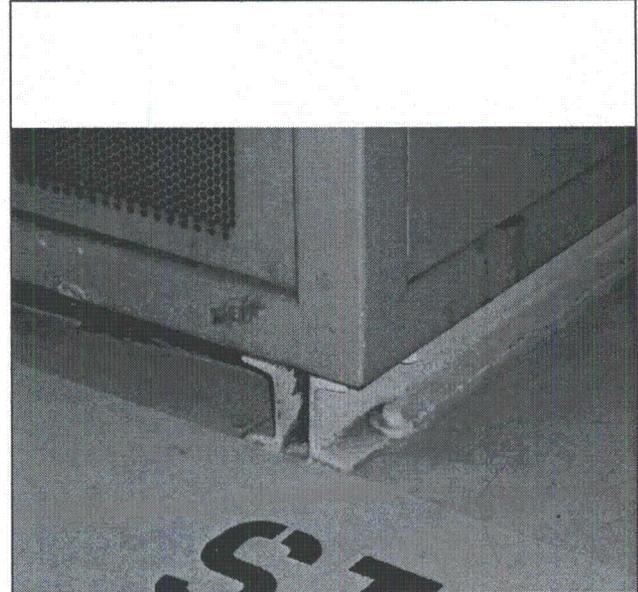
Equip. Class<sup>1</sup> 16

Equipment Description 10 KVA STATIC INVERTER #21

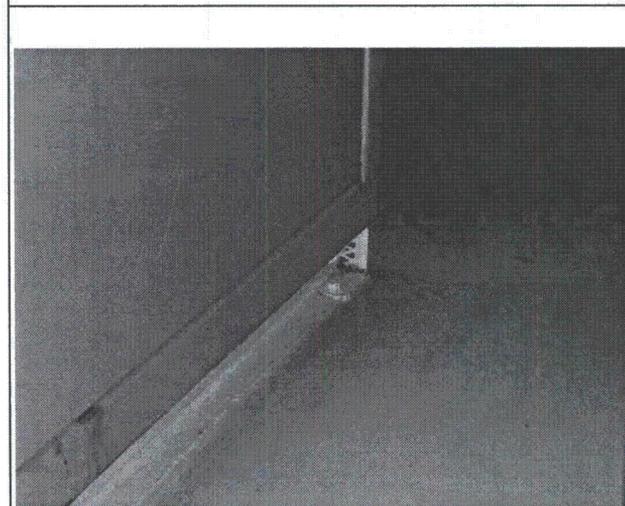
**Photographs**



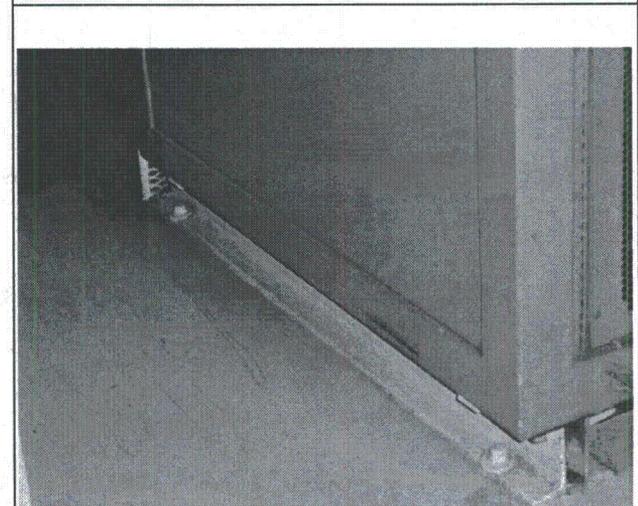
**Note:** Cabinet



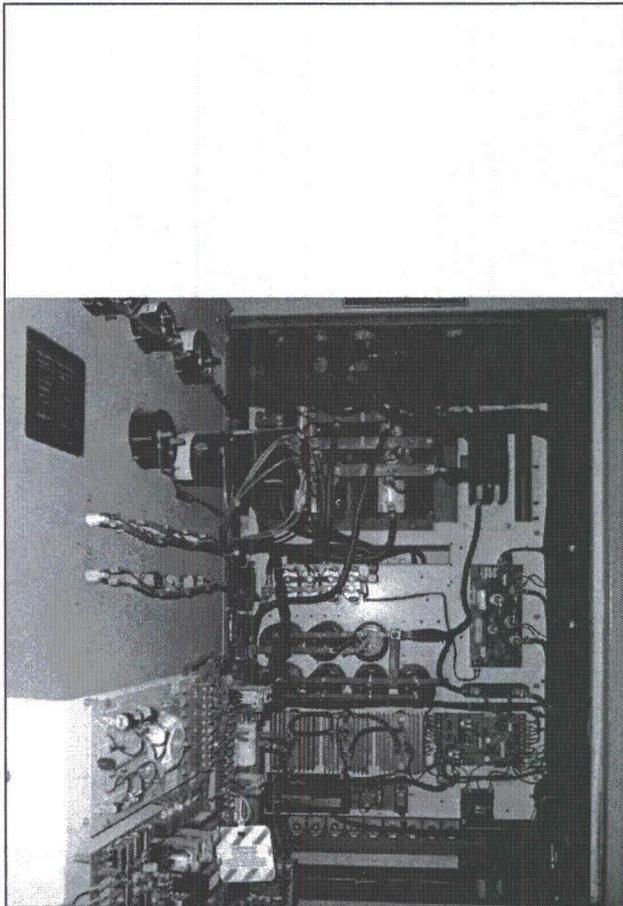
**Note:** North west anchor



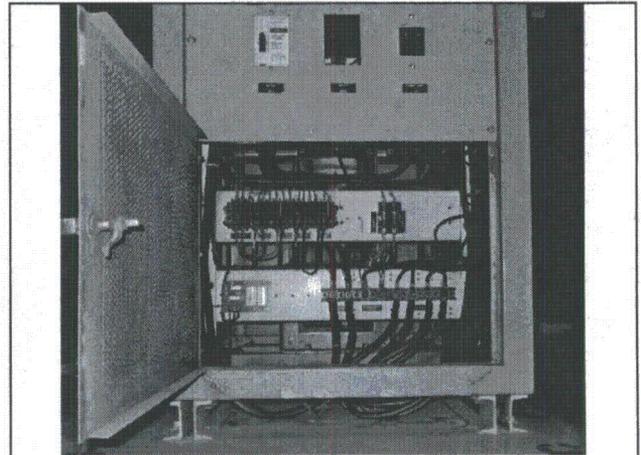
**Note:** South-west anchor



**Note:** East anchors



**Note:** *internals at top*



**Note:** *internals at bottom*

R1

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-075

Equipment ID No. EGA8

Equip. Class<sup>1</sup> 16

Equipment Description 10 KVA STATIC INVERTER #23

Location: Bldg. CB Floor El. 33'-0" Room, Area \_\_\_\_\_

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

*The anchorage configuration verification is not required.*

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

*Cabinet doors were opened on 2/28/14 and all internal anchorage is free of bent, broken, missing or loose hardware.*

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

*Yes the anchorage is free of corrosion that is more than mild surface oxidation.*

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

*Yes, the anchorage is free of visible cracks in the concrete near the anchor.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

R1

R1

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-075**Equipment ID No. EGA8Equip. Class<sup>1</sup> 16Equipment Description 10 KVA STATIC INVERTER #23

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.)

*Not applicable since component is not part of the anchorage configuration verification.*

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

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

*Yes soft targets are free from impact by nearby equipment or structures.*

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

*Block wall is seismically qualified by Computech report No. R547.01.*

*Fluorescent bulbs need to be secured to fixture with wires. CR IP2-2012-06120 tracks installation of wires to tie florescent bulb to fixture. It is judged the hard target inverter will remain operable if the fluorescent bulbs were to fall on it.*

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

*Yes attached lines have adequate flexibility to avoid damage.*

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.*

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-075

Equipment ID No. EGA8

Equip. Class<sup>1</sup> 16

Equipment Description 10 KVA STATIC INVERTER #23

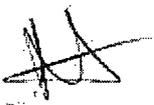
**Other Adverse Conditions**

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

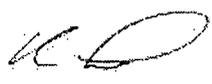
*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

References: Drawings and AWC  
Drawings: A206640, Rev 10, Arrangement of equipment in cable spreading room elev. 33'  
AWC-004

Evaluated by: Maggie Staub  Date: 2/28/14

R1

Kai Lo  2/28/14

Status: Y  N  U

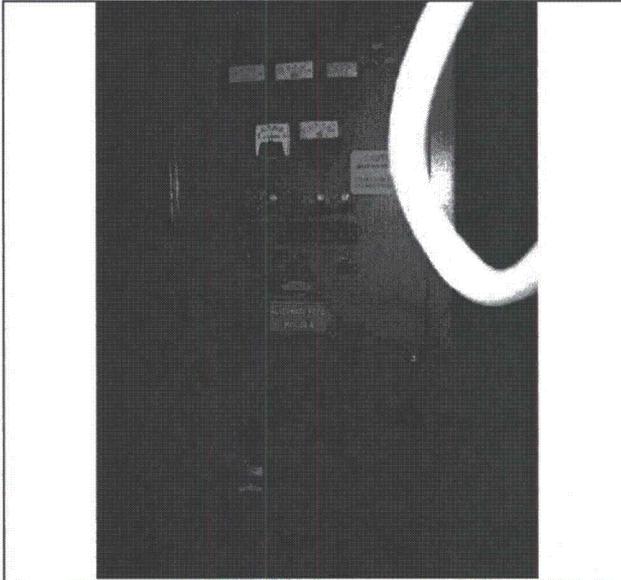
Seismic Walkdown Checklist (SWC) SWEL1-075

Equipment ID No. EGA8

Equip. Class<sup>1</sup> 16

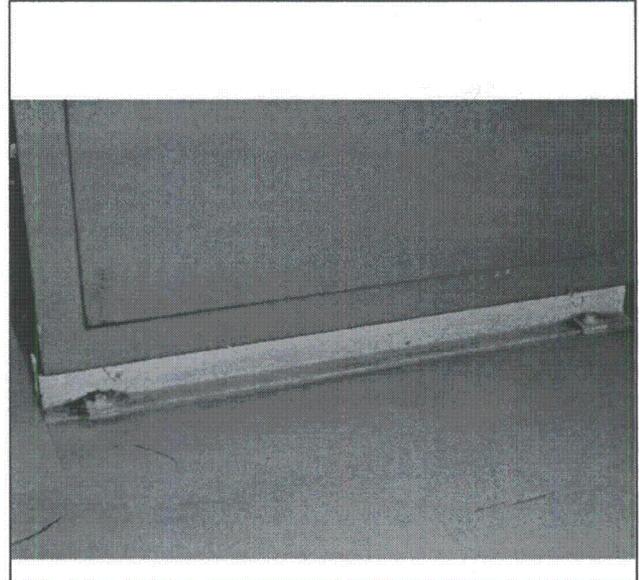
Equipment Description 10 KVA STATIC INVERTER #23

**Photographs**



**Note:**

*10 KVA Static inverter #23*



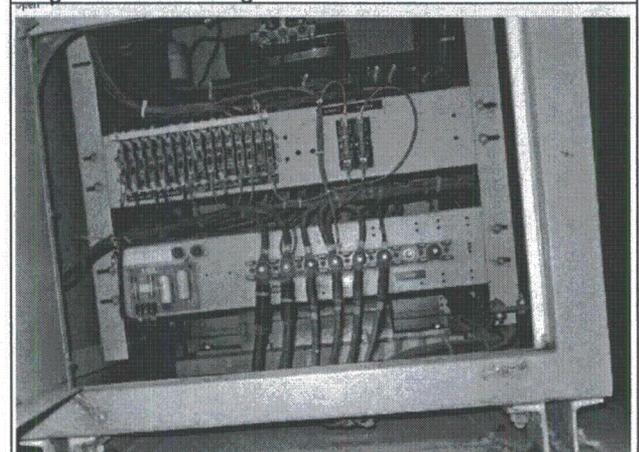
**Note:**

*Right side anchorage.*



**Note:**

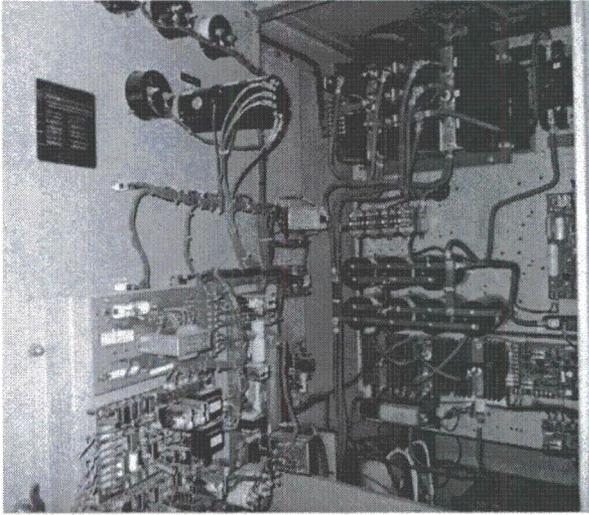
*Left side anchorage.*



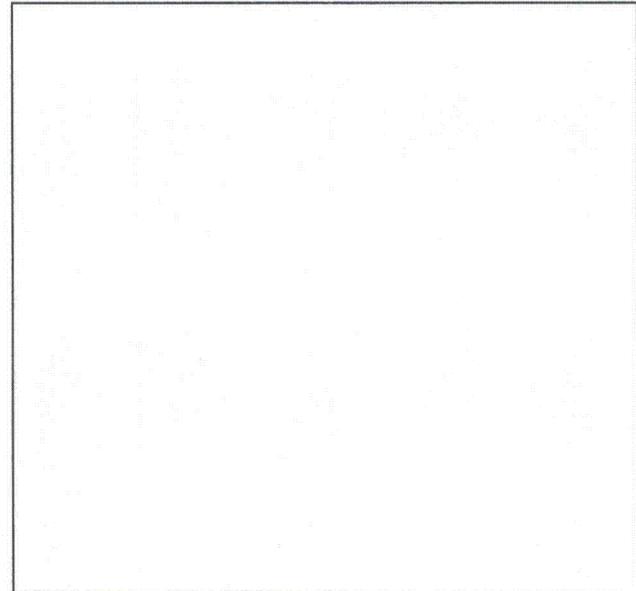
**Note:** *internal components at bottom*

R1

R1



**Note:** *internal components at top*



**Note:** *no other photos.*

R1

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-076

R1

Equipment ID No. 21EDG

Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 21

Location: Bldg. EDG

Floor El. 72'-0"

Room, Area \_\_\_\_\_

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

*Yes the anchorage configuration verification is required.*

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

*Anchorage of components internal to cabinets that are attached to diesel were examined. See comments on page 3.*

*External anchorage was inspected and is acceptable.*

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

*Minor surface rust. Acceptable.*

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

*A few minor hair like cracks. No significant structural cracks.*

R1

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC) SWEL1-076Status: Y  N  U Equipment ID No. 21EDGEquip. Class<sup>1</sup> 17Equipment Description DIESEL GENERATOR NO. 21

R1

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 *Anchorage matches the SQUG (SEWS).*

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

Y  N  U *Yes based on the above anchorage evaluations, the anchorage is  
free of potentially adverse seismic conditions.***Interaction Effects**

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

Y  N  U  N/A *Numerous tubes touch each other. Judged OK.*

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 *Refer to AWC-011 for partition discussion.*

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

Y  N  U  N/A *Yes attached lines have adequate flexibility to avoid damage.*

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

Y  N  U *Yes based on the above seismic interaction evaluations, the equipment  
is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

**Seismic Walkdown Checklist (SWC) SWEL1-076**

Equipment ID No. 21EDG

Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 21

**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

*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*West lower air filters bottom clip does not hold air filter in place. Air can by-pass filter. Operations personnel fixed issue while inspection team was their. Operations CR IP2-2012-06238 issued for trend tracking resolution.*

*References: Drawings and AWC*

*Drawings: 9321-H-2250, Rev 7, Diesel generator building general arrangement plan.*

*9321-F-18533 (A201351), Control and diesel generator buildings foundation plan and details.*

*AWC-011*

*The upper roof panel has one bolt that doesn't have a nut. This is acceptable because the remaining bolts are adequate to hold the panel. This is addressed in CR-IP2-2013-04549.*

*The anchorage of the following components that are inside a cabinet are inspected:*

- 1. Power panel for 21 Pre Lube Pump, 21 Lube Oil Heater, and 21 Jacket Water Heater OK
- 2. Panel EPZ44: Fuses for 21 Pre Lube Pump, 21 Lube Oil Heater, 21 jacket water heater OK
- 3. 21 EDG Gauge Board panel OK
- 4. 21EDG Jacket water pressure switch box OK
- 5. 21EDG Crankcase Exhaust Fan Starter Enclosure OK

Evaluated by: Kai Lo  Date: 11/12/13

John Skonieczny  11/12/13

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-076

Equipment ID No. 21EDG

Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 21

R1

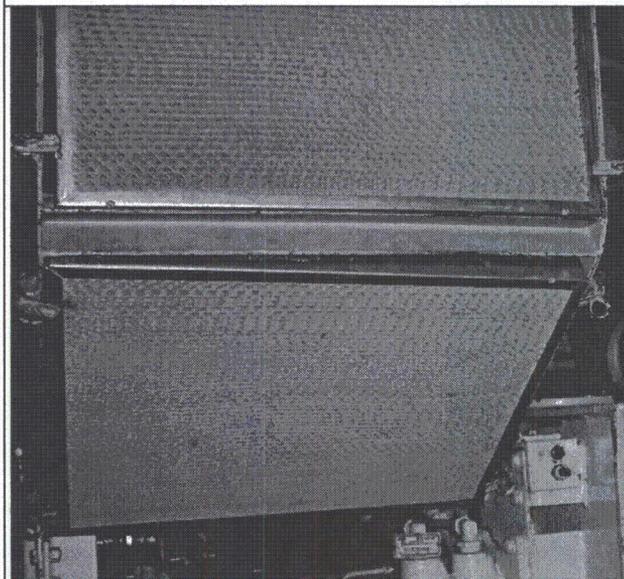
**Photographs**



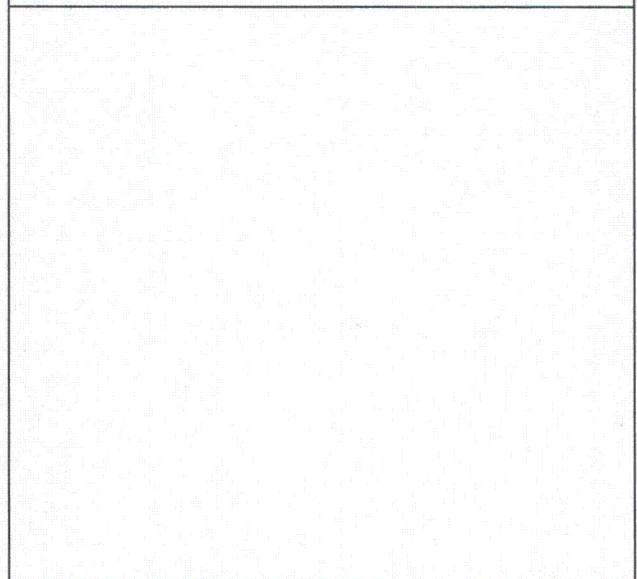
**Note:** DIESEL GENERATOR NO 21.



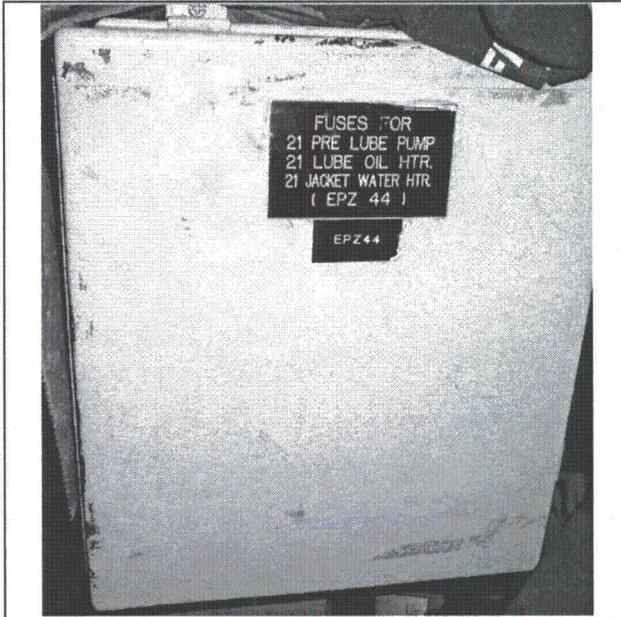
**Note:** LOWER AIR FILTER NOT FULLY LATCHED.



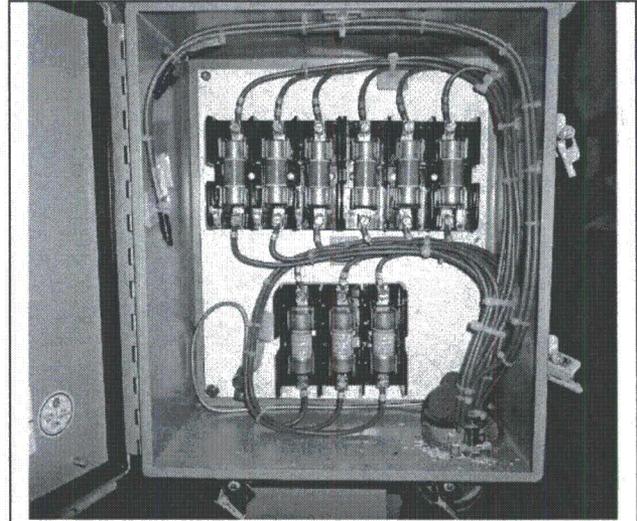
**Note:**  
LOWER AIR FILTER NOT FULLY LATCHED.



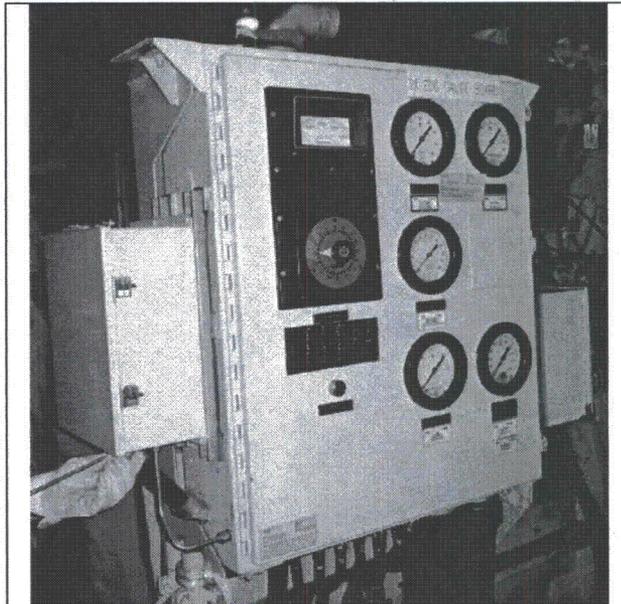
**Note:** no photo.



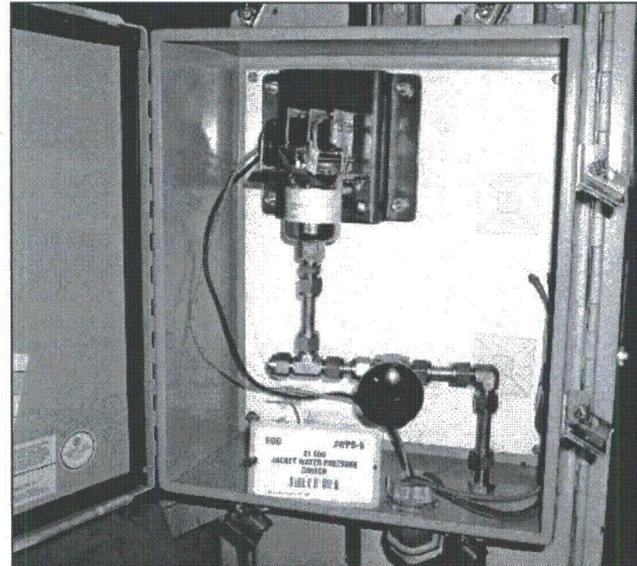
**Note:** Panel EPZ44



**Note:** Panel EPZ44 internals

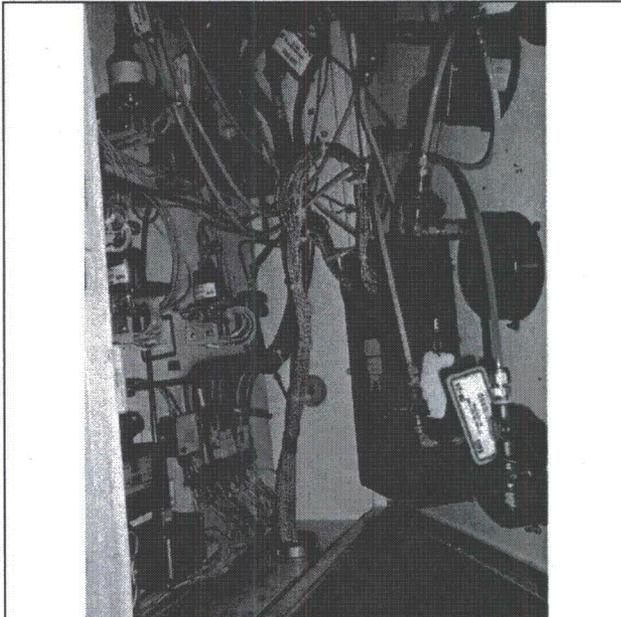


**Note:** 21 EDG Gauge Board

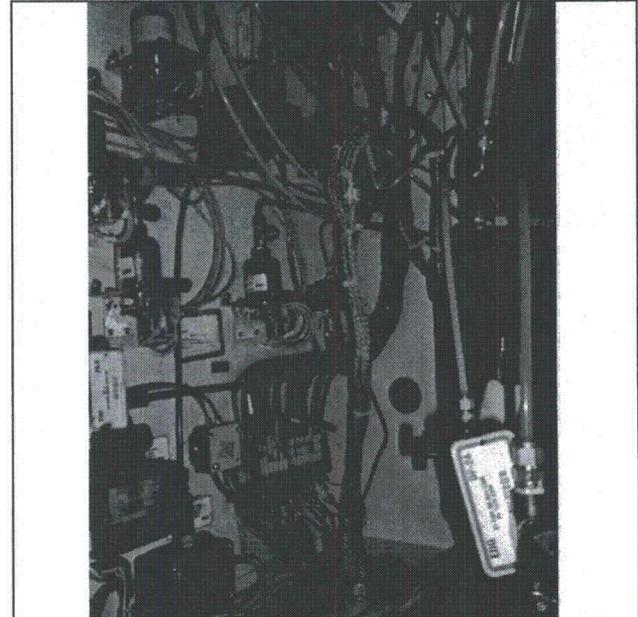


**Note:** 21 EDG Jacket Water Pressure Switch

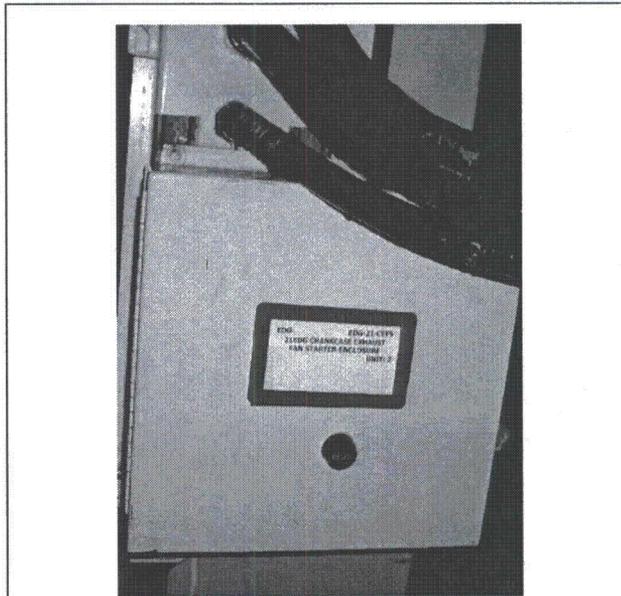
R1



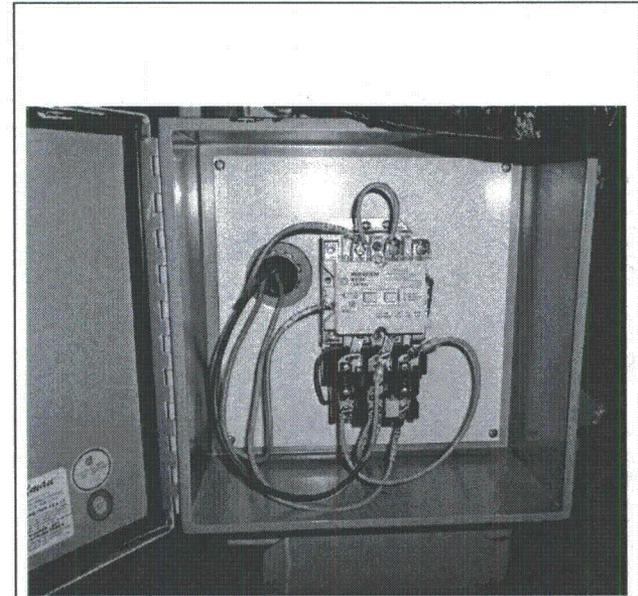
**Note:** 21 EDG Gauge Board internals



**Note:** 21 EDG Gauge Board internals



**Note:** 21EDG Crankcase Exhaust Fan Starter Enclosure



**Note:** 21EDG Crankcase Exhaust Fan Starter Enclosure internals

R1

Status: Y  N  U

R1

**Seismic Walkdown Checklist (SWC) SWEL1-077**

Equipment ID No. 0022EDG

Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 22

Location: Bldg. EDG

Floor El. 72'-0"

Room, Area \_\_\_\_\_

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

*Yes the anchorage configuration verification is required.*

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

R1

*Anchorage of components internal to cabinets attached to diesel were opened and examined. Internals were inspected.*

*Southwest of the EDG near the western post of the EDG exhaust pipe there is a base plate missing 1 of 4 anchor bolt nuts. This is judged seismically adequate as this base plate was abandoned from the old EDG exhaust pipe support and now a 4" pipe bears on but is not welded to the base plate.*

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

*Yes the anchorage is free of corrosion that is more than mild surface oxidation.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U 

R1

Seismic Walkdown Checklist (SWC) SWEL1-077Equipment ID No. 0022EDGEquip. Class<sup>1</sup> 17Equipment Description DIESEL GENERATOR NO. 22

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

*EDG Pedestal has some minor hair line cracks that are none structural. They are not near the anchors. Acceptable.*

*EDG exhaust pipe is supported on a post frame that also supports fuse panel for 22 Pre Lube Pump, 22 Lube oil HTR, and 22 Jacket Water HTR. This support has damaged & missing grout under the eastern post base plate. LB-11 was issued to resolve.*

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.)

*Anchorage matches the SQUG (SEWS).*

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

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

*A lot of tubing, hoses, etc. touch each other. All occurrences where judged acceptable. Some but not all of the occurrences are noted below.*

*-Fuel oil filter line DF-80 touches DF-78 on south west side of 22EDG.*

*-EDG DLO 13-1 EDG 22 STRNR Vent Stop Valve tubing touches pipe to 22EDLOS.*

*-EDG JWP-1-1 22EDG PS-1-1 and PS-5-1 stop tubing touches pipe to FE-6469 on east side of 22EDG.*

*-Line on west side of 22EDG to DLO-539 touches line to DF-107.*

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-077**Equipment ID No. 0022EDGEquip. Class<sup>1</sup> 17Equipment Description DIESEL GENERATOR NO. 22

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

*Refer to AWC-011 for partition discussion.*

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

*Yes attached lines have adequate flexibility to avoid damage.*

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

*Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.*

**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

*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-077

Equipment ID No. 0022EDG

Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 22

**Comments** (Additional pages may be added as necessary)

*The following are house keeping issues and judged acceptable for seismic concerns.*

*Grating at valve DA-559 DG22 Starting Air Right Side supply is touching valve hand wheel. This is a non- seismic issue.*

*One of the roof light bulbs is out. CR IP2-2012-06515 issued to track resolution.*

*Minor surface rust on some threaded rods, bolts, nuts, and other components. Judged acceptable.*

*Flange on 22EDG JW & LO Coolers cooling WTR outlet has one out of 23 bolts flush with nut. Judged acceptable.*

*Latch on 22EDG Gauge board cover panel on north side is not latched. CR IP2-2012-06238 issued to track resolution.*

*Noted WRT 00172112 was tagged to track resolution of a leak on south east side of diesel.*

*Evidence of oil leaks below south side of diesel typical for all diesels in area. Judged acceptable.*

*The Starting Air Pressure Gauge is missing 1 of 3 screws. The remaining 2 screws will be seismically adequate. This condition is captured in CR-IP2-2013-02336.*

References: Drawings and AWC

Drawings: 9321-H-2250, Rev 7, Diesel generator building general arrangement plan.

CR IP2-2012-06515

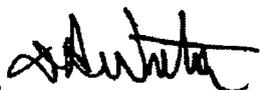
CR IP2-2012-06238

WRT 00172112

AWC-011

*Left hand starting air pressure gauge missing one screw. Found*

Evaluated by: Kai Lo  Date: 6/10/13

Dan Nuta  Date: 6/10/13

R1

R1

Status: Y  N  U

R1

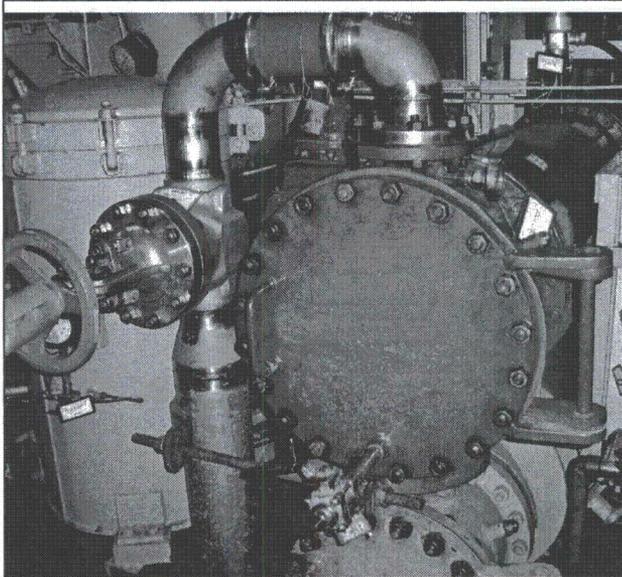
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Equipment ID No. 0022EDG

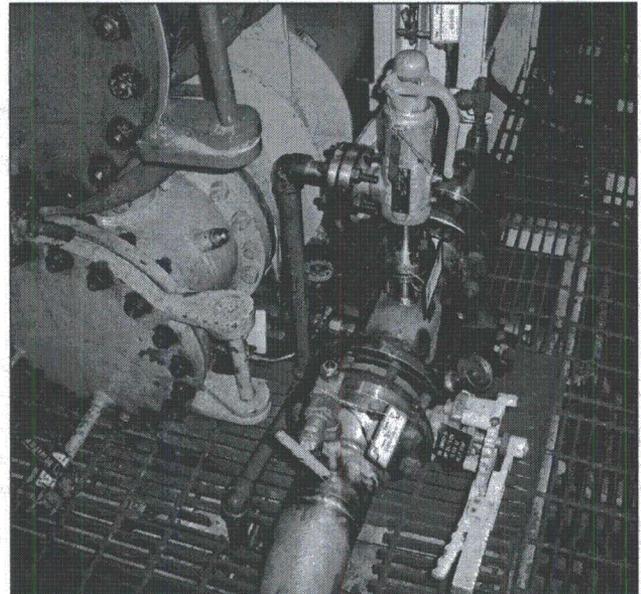
Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 22

**Photographs**



**Note:** Flange on 22EDG JW & LO Coolers cooling WTR outlet with flush nut and showing minor surface corrosion.



**Note:** Minor surface corrosion on flange couplings. Possible galvanic corrosion stainless steel pipe and carbon steel bolts.

Status: Y  N  U

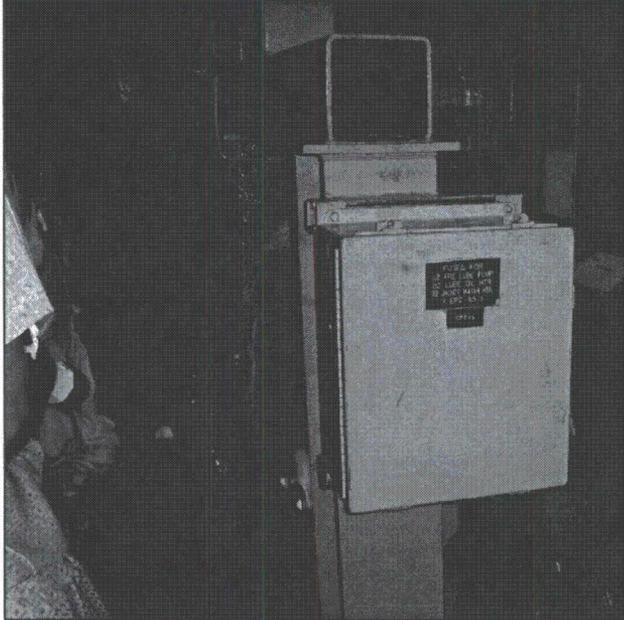
R1

Seismic Walkdown Checklist (SWC) SWEL1-077

Equipment ID No. 0022EDG

Equip. Class<sup>1</sup> 17

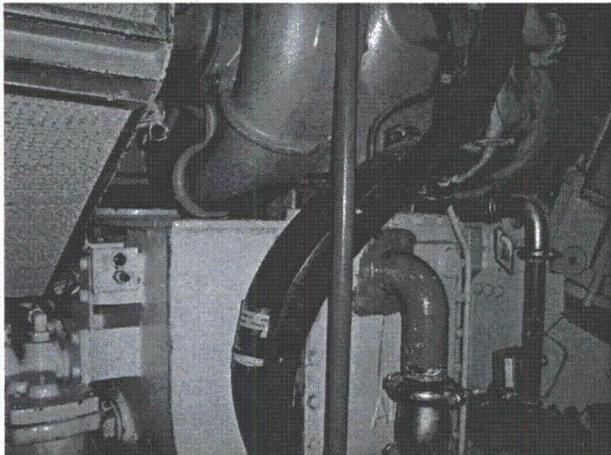
Equipment Description DIESEL GENERATOR NO. 22



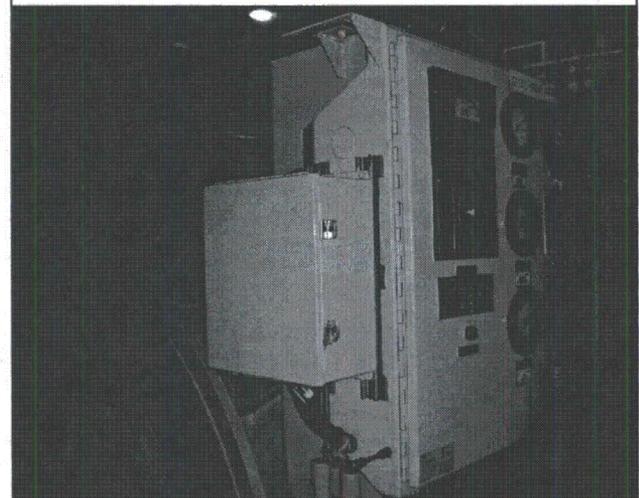
**Note:** Shows fuse panel for 22 Pre Lube Pump, 22 Lube oil HTR, and 22 Jacket Water HTR that has damaged & missing grout under the eastern (close) posts base plate.



**Note:** Example of tubing touching a pipe.



**Note:** Example of rubber tubing touching.



**Note:** Latch on 22EDG Gauge board cover panel on north side is not latched.

Seismic Walkdown Checklist (SWC) SWEL1-077

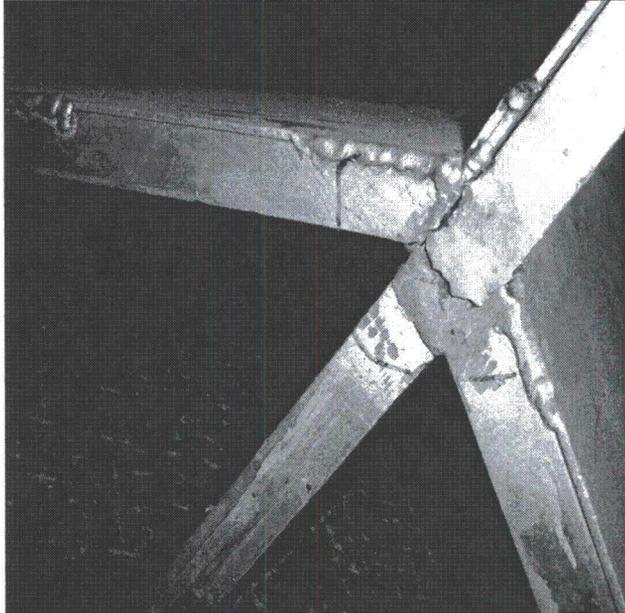
Status: Y  N  U

R1

Equipment ID No. 0022EDG

Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 22

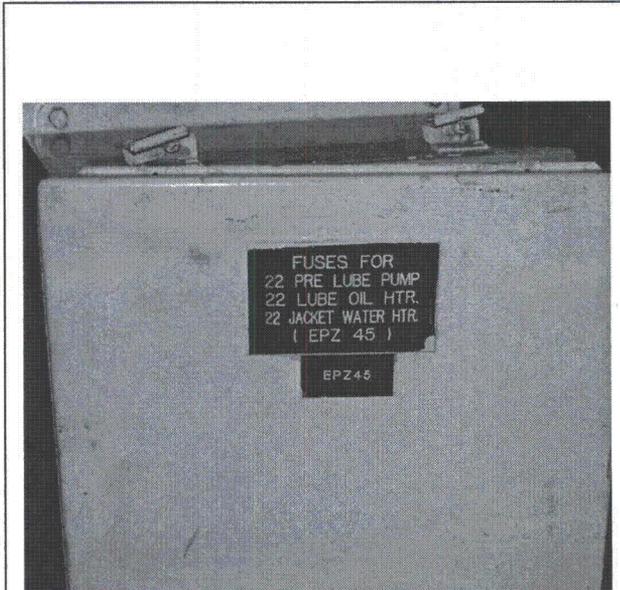


**Note:** Cracked welds on partition wall between diesels.

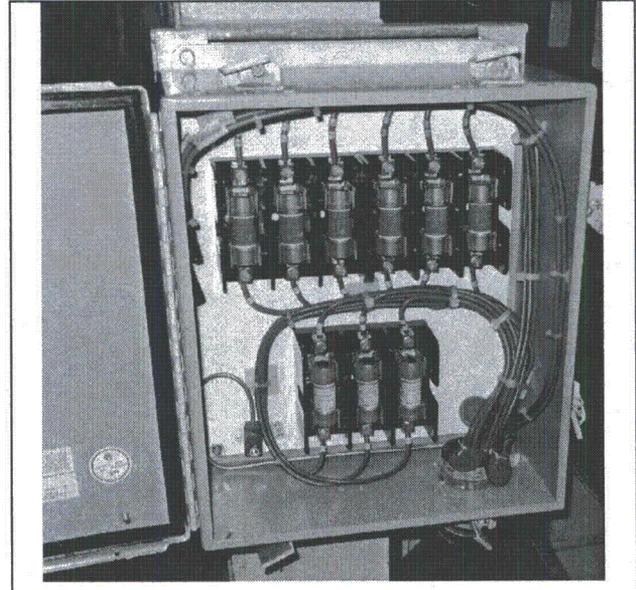


**Note:** Partition wall between diesels that needs verification of seismic design. This is addressed in Calculation FCX-00534 and AWC-011.

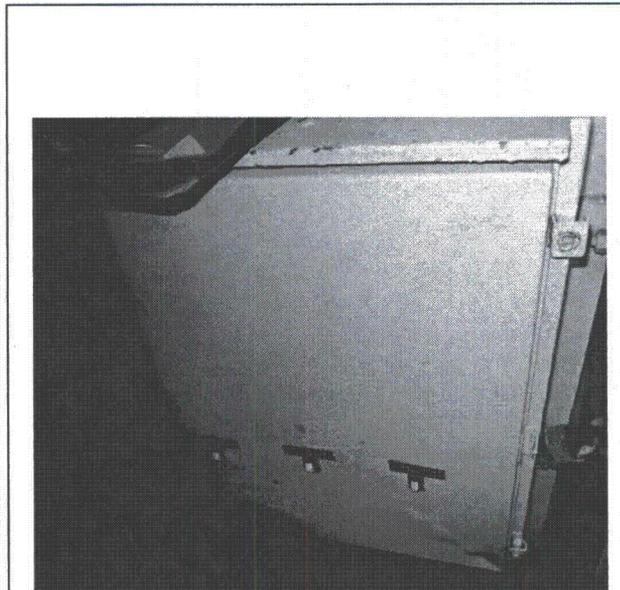
R1



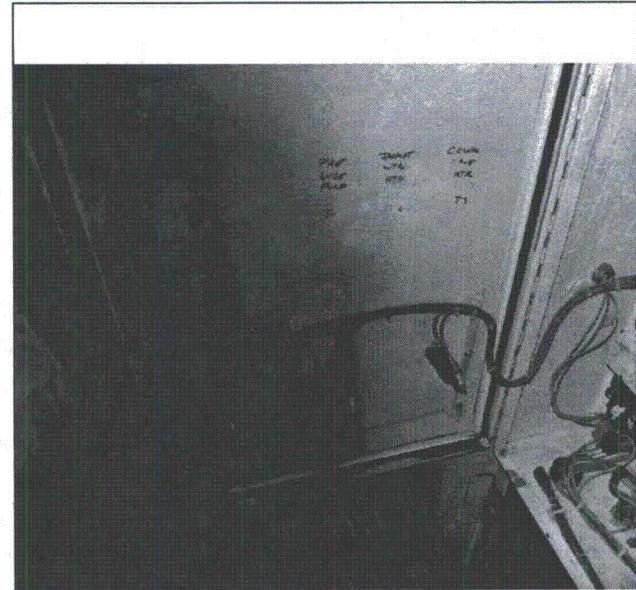
**Note:** Panel EPZ45



**Note:** Panel EPZ45 internals

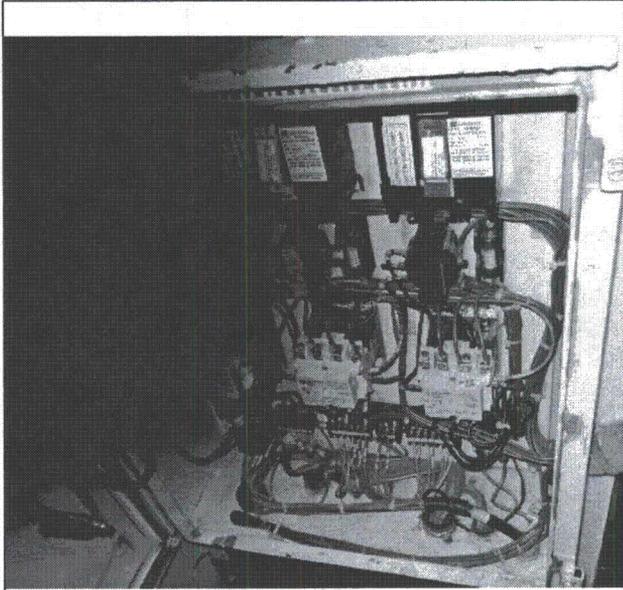


**Note:** 22 jacket water heater

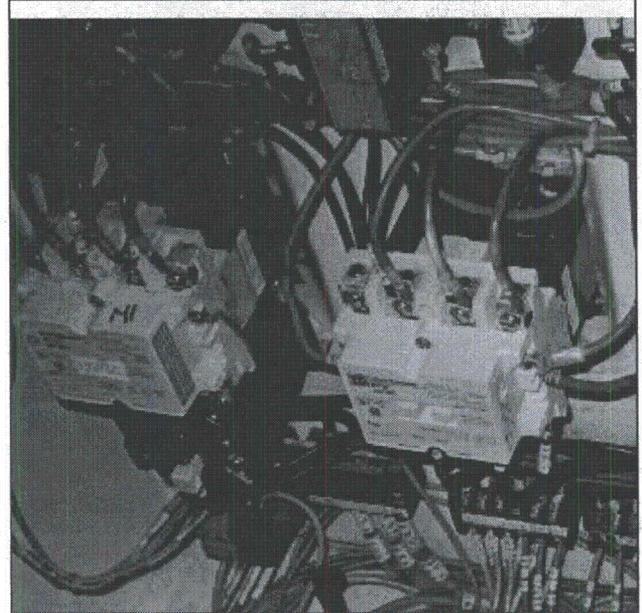


**Note:** 22 jacket water heater internals

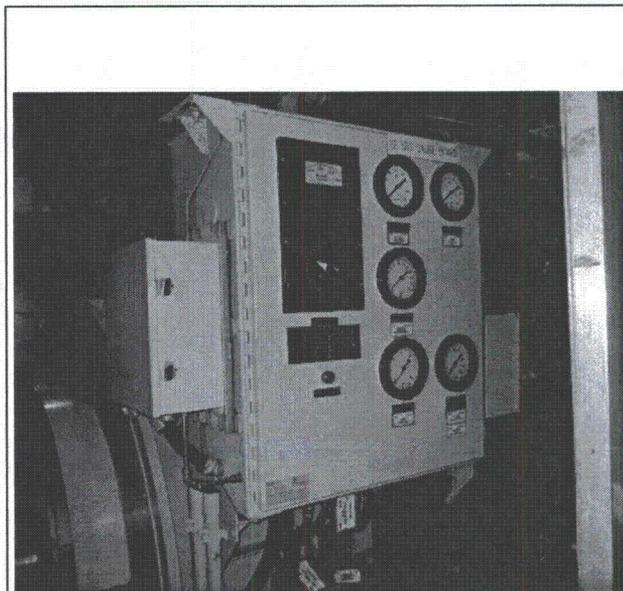
R1



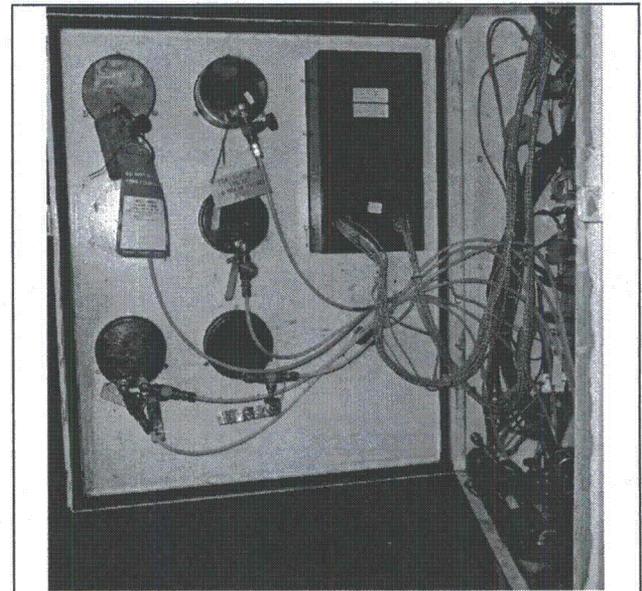
**Note:** 22 jacket water heater internals



**Note:** 22 jacket water heater internals

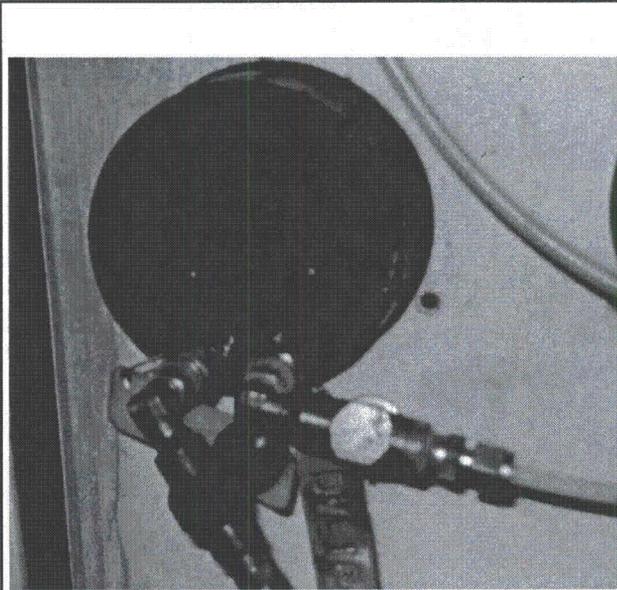


**Note:** 22 EDG Gauge Board

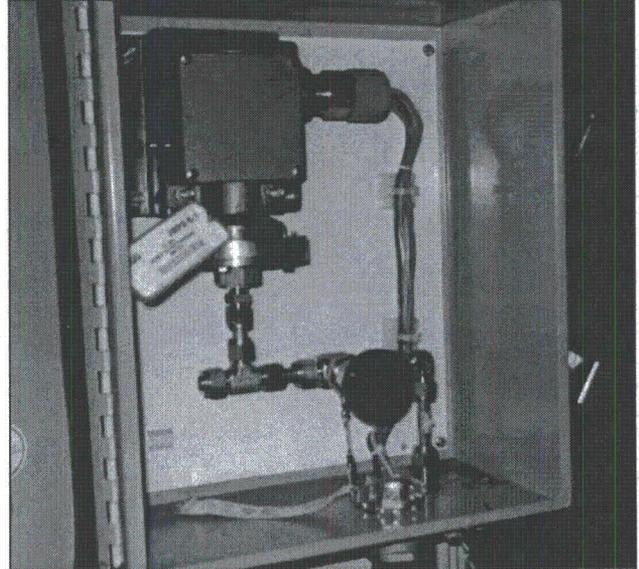


**Note:** 22 EDG Gauge Board internals

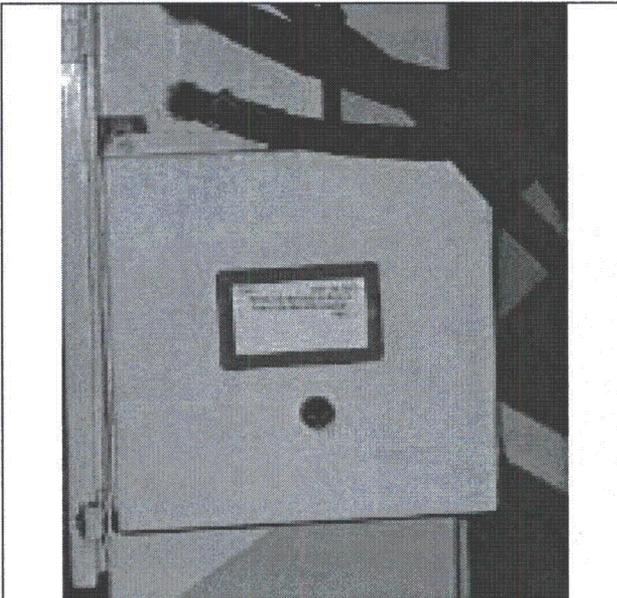
R1



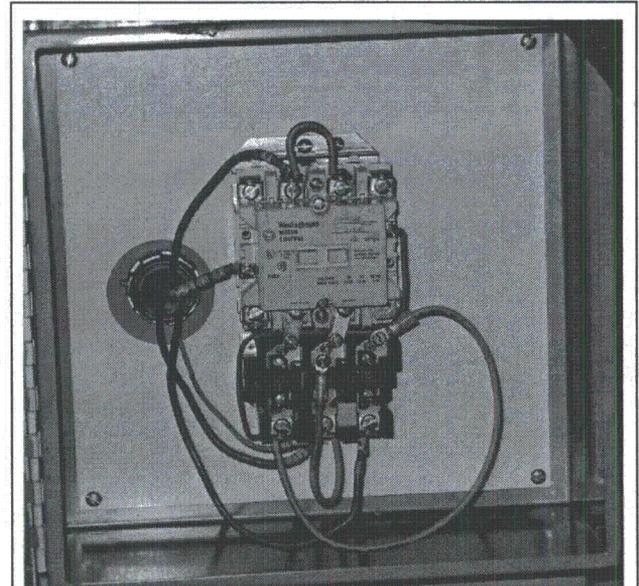
**Note:** missing screw from starting air pressure gauge



**Note:** 22 EDG Jacket Water Pressure Switch cabinet



**Note:** 22 EDG CrankCase Exhaust Fan Starter Enclosure



**Note:** 22 EDG CrankCase Exhaust Fan Starter Enclosure internals

R1

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-078**Equipment ID No. 0023EDGEquip. Class<sup>1</sup> 17Equipment Description DIESEL GENERATOR NO. 23Location: Bldg. EDGFloor El. 72'-0"

Room, Area \_\_\_\_\_

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

*Yes the anchorage configuration verification is required.*

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

*Anchorage of components internal to cabinets attached to diesel were examined. Internals were inspected when cabinets were opened.*

R1

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

*Surface corrosion. Not significant.*

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

*Minor hair line cracks. Not significant.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-078**Equipment ID No. 0023EDGEquip. Class<sup>1</sup> 17Equipment Description DIESEL GENERATOR NO. 23

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.)

*Anchorage matches the SQUG (SEWS).*

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.***Interaction Effects**

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

*Yes soft targets are free from impact by nearby equipment or structures.*

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

*Refer to AWC-011 for partition discussion.*

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

*Numerous lines touching. Judged acceptable.*

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

*Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-078

Equipment ID No. 0023EDG

Equip. Class<sup>1</sup> 17

Equipment Description DIESEL GENERATOR NO. 23

**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

*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

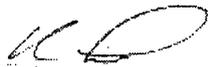
*1 of 4 air filter latches do not hold air filter in place. Air can by-pass filter. Operations personnel fixed issue in our presence. CR IP2-2012-06238 issued for trend tracking purposes.*

*References: Drawings and AWC*

*Drawings: 9321-H-2250, Rev 7, Diesel generator building general arrangement plan, AWC-011*

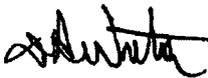
- 1. Fuse panel EWZ69 OK*
- 2. Power panel – light adaptor is loose from panel cover (adhesive) at 23 lube oil heater power light. This is addressed in CR-IP2-2013-04158.*
- 3. Panel adjacent to gauge board (jacket water pressure switch) OK*
- 4. EDG gauge board – electrical tape at back of panel at 2 locations. This is a housekeeping issue.*
- 5. Crankcase starter enclosure OK*

Evaluated by: Kai Lo



Date: 10/15/13

Dan Nuta



10/15/13

R1

Status: Y  N  U

R1

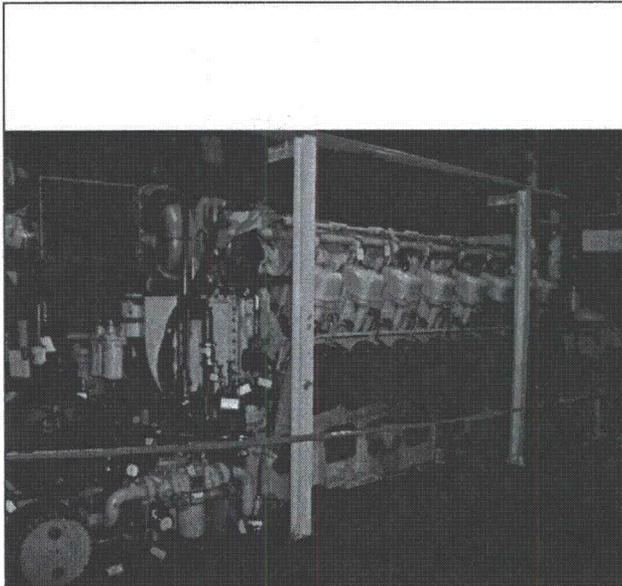
Seismic Walkdown Checklist (SWC) SWEL1-078

Equipment ID No. 0023EDG

Equip. Class<sup>1</sup> 17

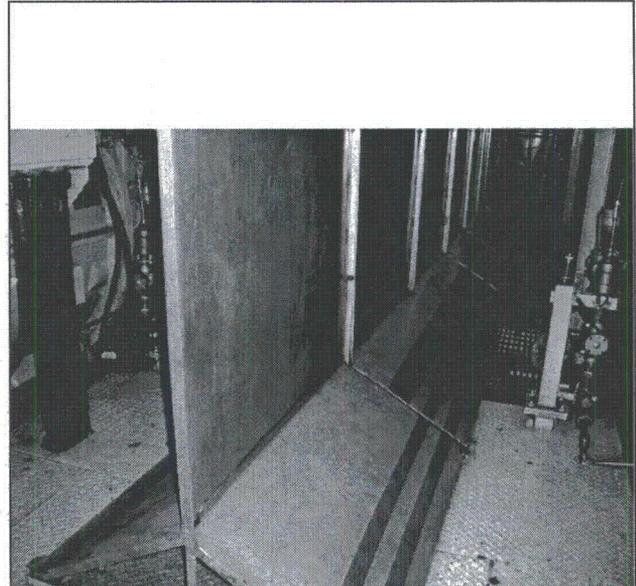
Equipment Description DIESEL GENERATOR NO. 23

**Photographs**



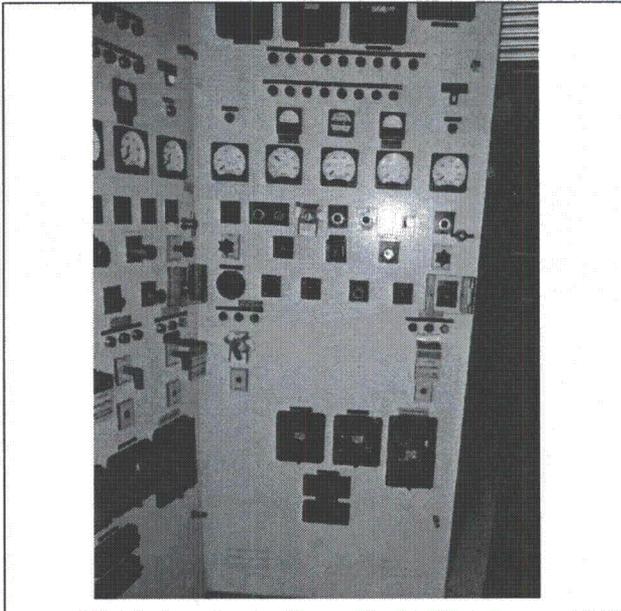
**Note:**

*DIESEL GENERATOR NO 23.*

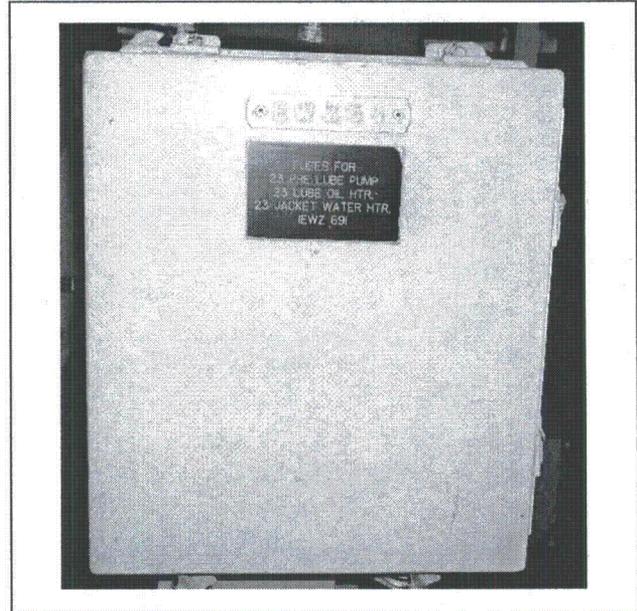


**Note:**

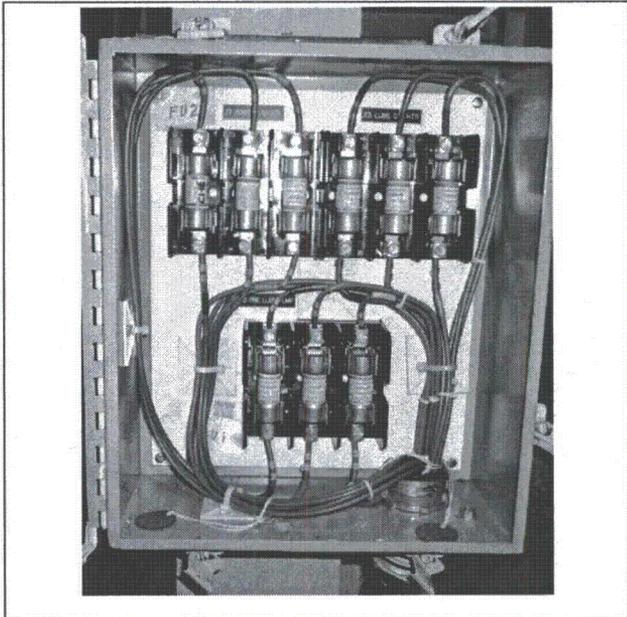
*PARTITION WALL BETWEEN GENERATORS.*



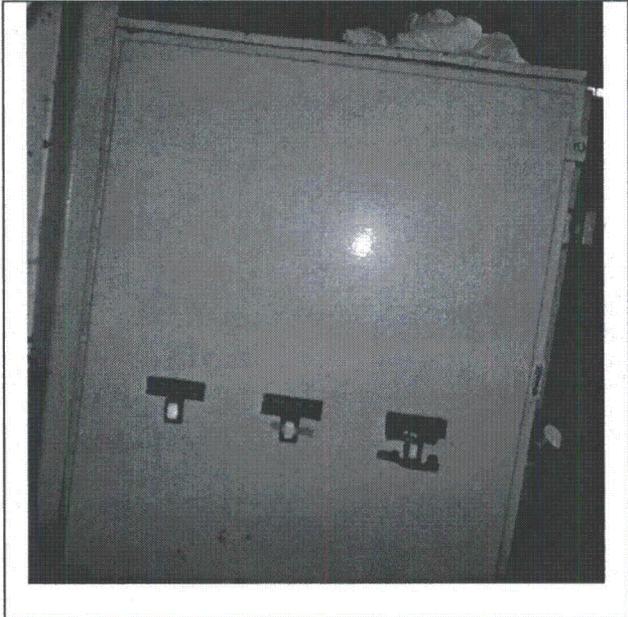
**Note:** #23 EDG panel



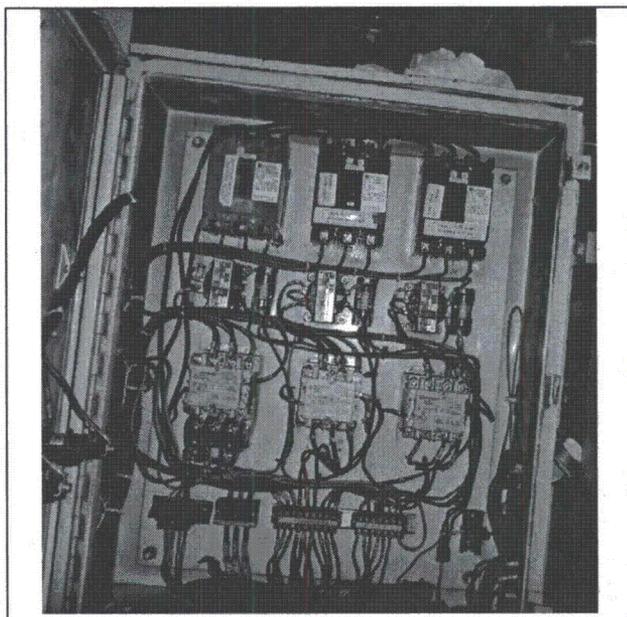
**Note:** Panel EWZ69



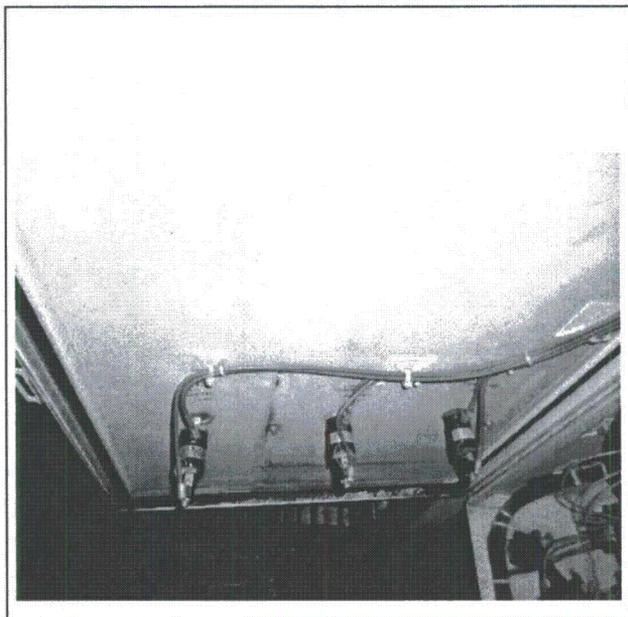
**Note:** *Panel EWZ69 internals*



**Note:**

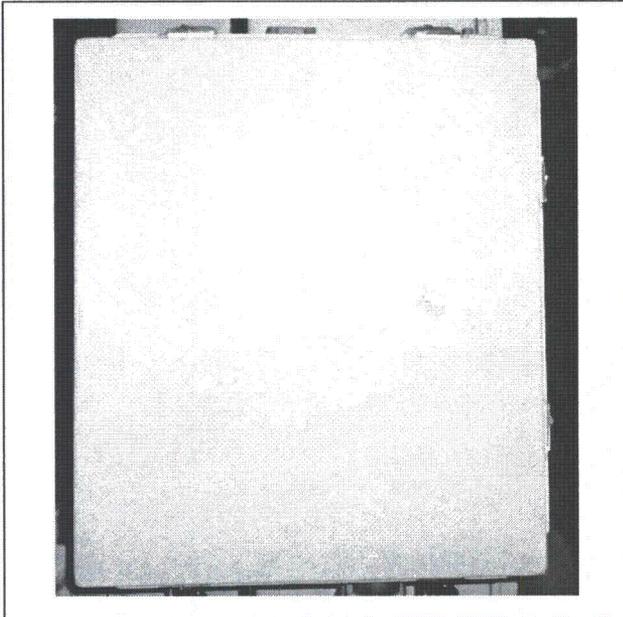


**Note:** *panel internals*

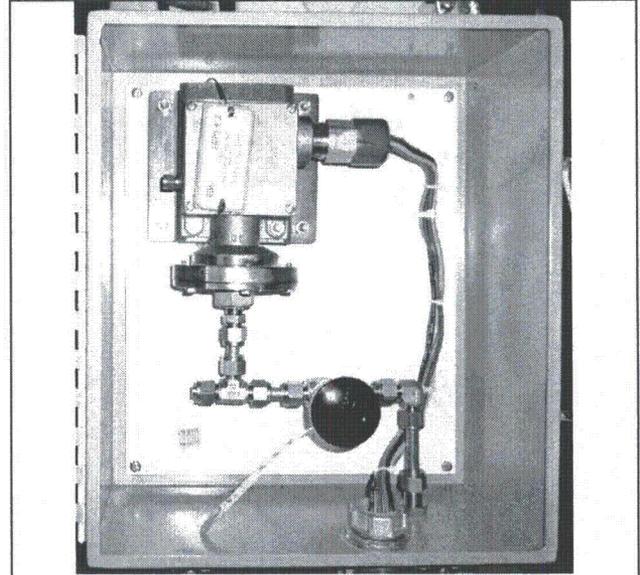


**Note:** *panel internals*

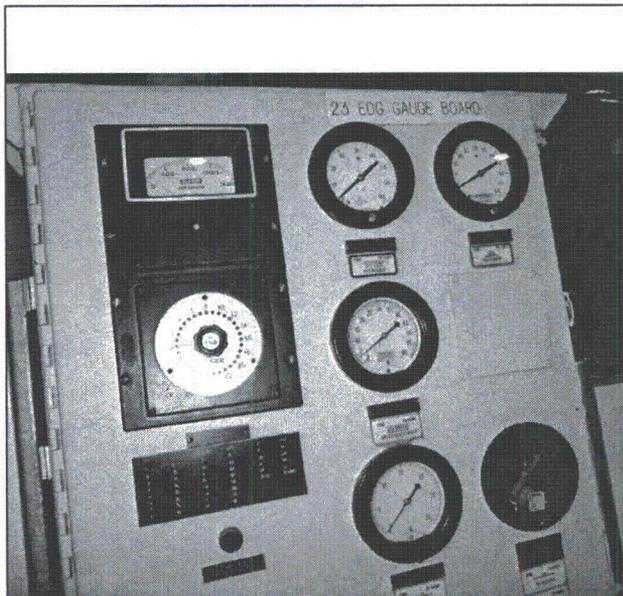
R1



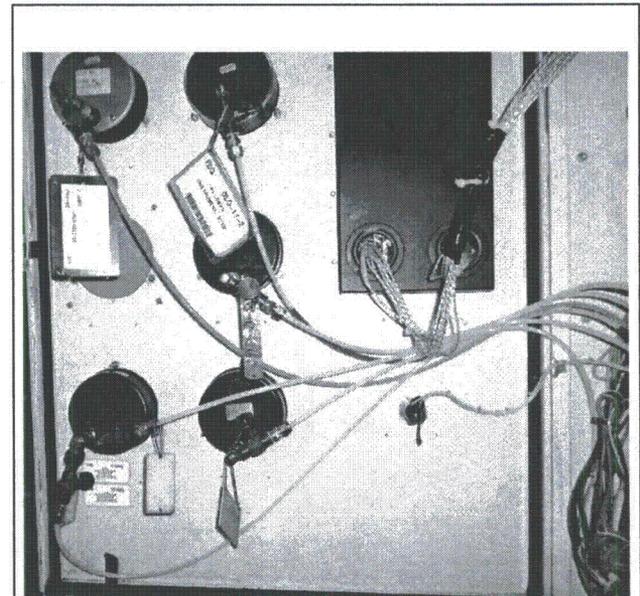
**Note:** side panel



**Note:** side panel internals

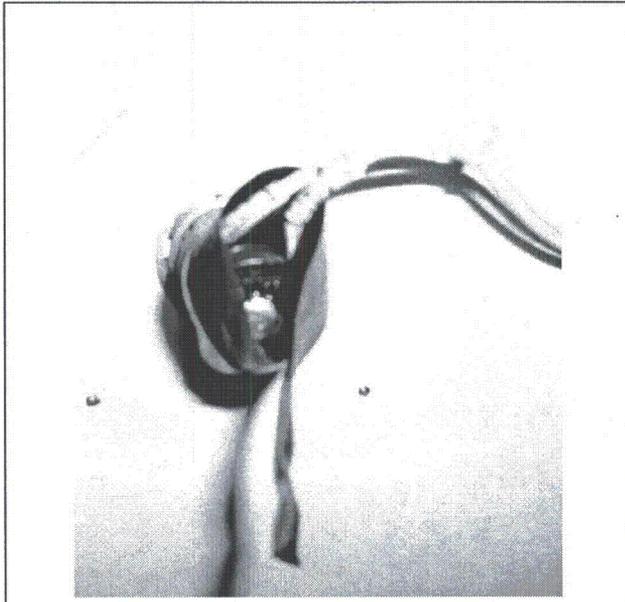


**Note:** 23 EDG Gauge Board

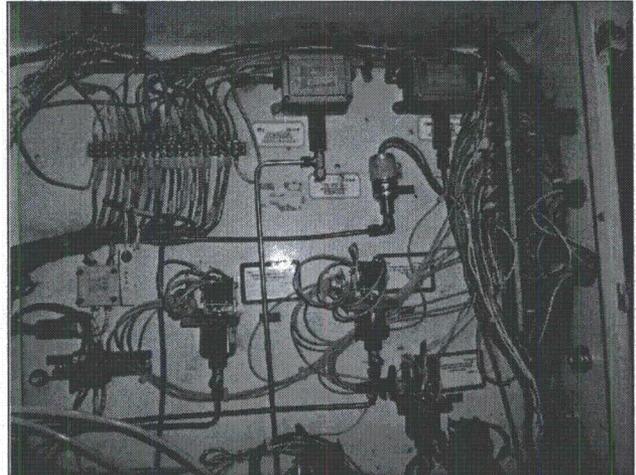


**Note:** 23 EDG Gauge Board internals

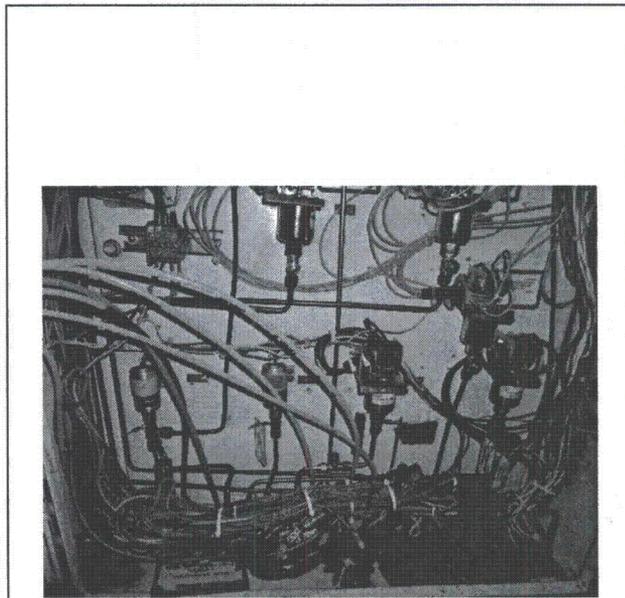
R1



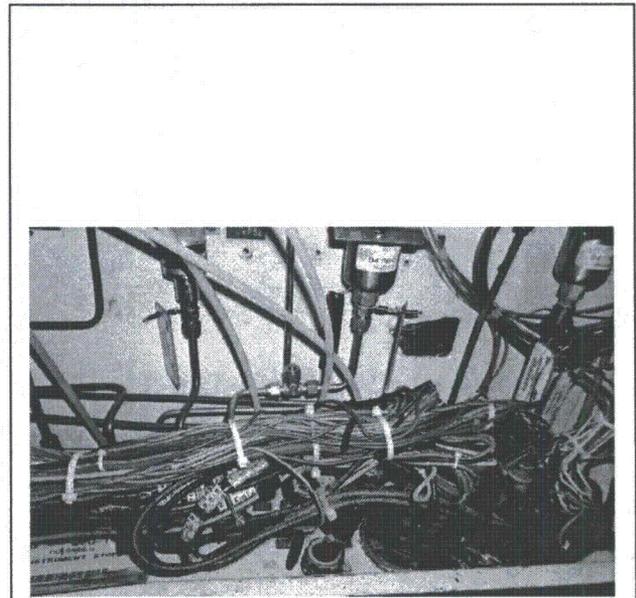
**Note:** 23 EDG Gauge Board – electrical tape on back of panel



**Note:** 23 EDG Gauge Board internals

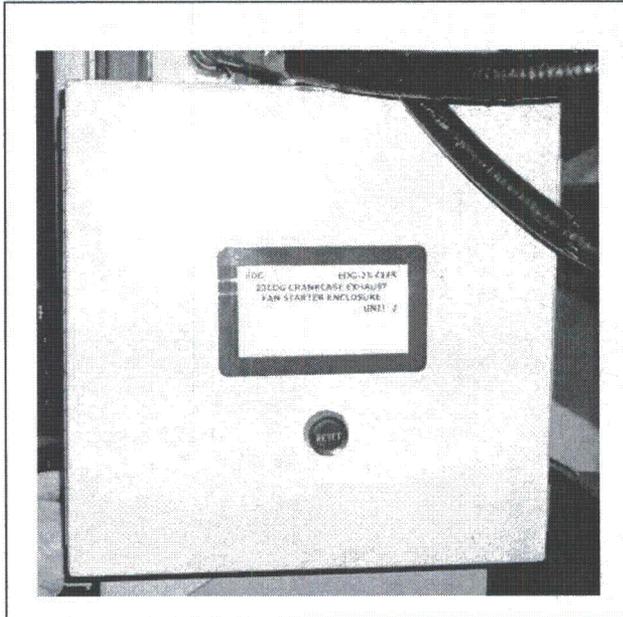


**Note:** 23 EDG Gauge Board internals

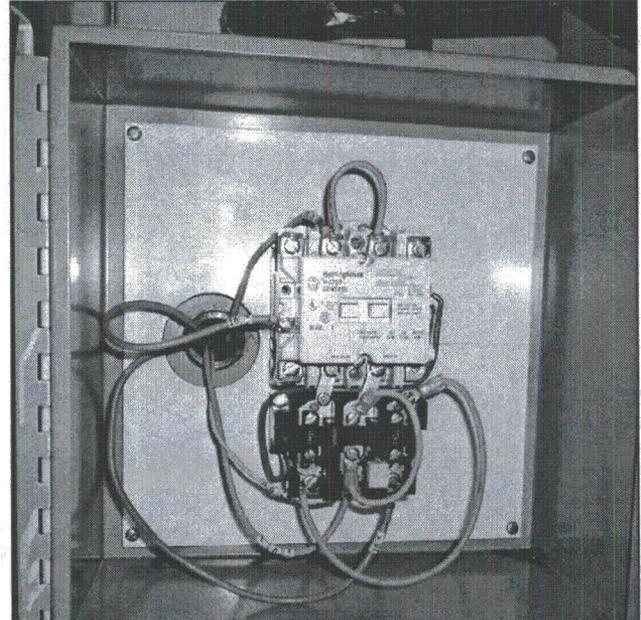


**Note:** 23 EDG Gauge Board internals

R1



**Note:** Crankcase exhaust fan starter enclosure



**Note:** Crankcase exhaust fan starter enclosure internals

R1

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-081

Equipment ID No. IP2-EDGB-72-DB6

Equip. Class<sup>1</sup> 18

Equipment Description EDG BLDG 72' EL ENGINE AUXILIARIES CTRL PNL

Location: Bldg. EDG Floor El. 72'-0" Room, Area \_\_\_\_\_

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

*No, the anchorage configuration verification is not required.*

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

*Cabinet was opened for internal inspection during ATO and internals inspected. See sheet 3.*

*External anchorage is present and was inspected. External anchorage is free of bent, brocken, missing or loose hardware.*

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

*Minor surface corrosion. Judged OK.*

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

*Floor is coated. No visible cracks.*

R1

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-081**Equipment ID No. IP2-EDGB-72-DB6Equip. Class<sup>1</sup> 18Equipment Description EDG BLDG 72' EL ENGINE AUXILIARIES CTRL PNL

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

*Not applicable since component is not part of the anchorage configuration verification.*

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. Internal components were examined during EDG ATO. See sheet 3.*

R1

**Interaction Effects**

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

*Yes soft targets are free from impact by nearby equipment or structures.*

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

*Speaker and heater overhead judged to be adequately supported.*

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

*Yes attached lines have adequate flexibility to avoid damage.*

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

*Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

R1

Seismic Walkdown Checklist (SWC) SWEL1-081

Equipment ID No. IP2-EDGB-72-DB6

Equip. Class<sup>1</sup> 18

Equipment Description EDG BLDG 72' EL ENGINE AUXILIARIES CTRL PNL

**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

*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Top right cover screw is loose. Panel is judged by the walkdown team to be seismicly adequate with missing screw. Operations personnel fixed issue immediately for walkdown team.*

*References: Drawings and AWC.*

*Drawings: 9321-F-3049, Rev 30, Conduit layout diesel generator building, elev 67' and 72' plan. A209208, Rev 11. Conduit layout diesel generator building, elev 67' and 72' section 4 Details.*

*9321-H-2250, Rev 7. Diesel generator building general arrangement plan.*

*AWC-011*

*During EDG ATO, the following cabinets were opened and the internals inspected:*

- 1. Air Compressor Panel O.K.*
- 2. Fuel Oil Pump Disconnect O.K.*
- 3. Crankcase Exhaust Fan Fuse Box O.K.*

R1

Evaluated by: Kai Lo  Date: 11-12-2013

John Skonieczny  11-12-2013

Status: Y  N  U

R1

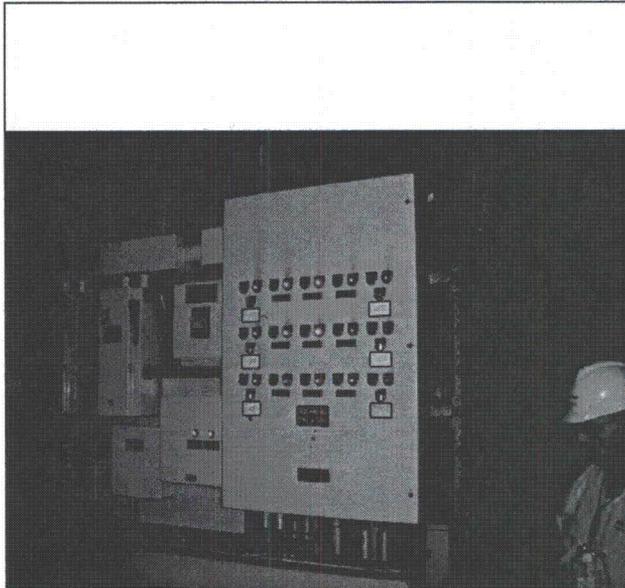
Seismic Walkdown Checklist (SWC) SWEL1-081

Equipment ID No. IP2-EDGB-72-DB6

Equip. Class<sup>1</sup> 18

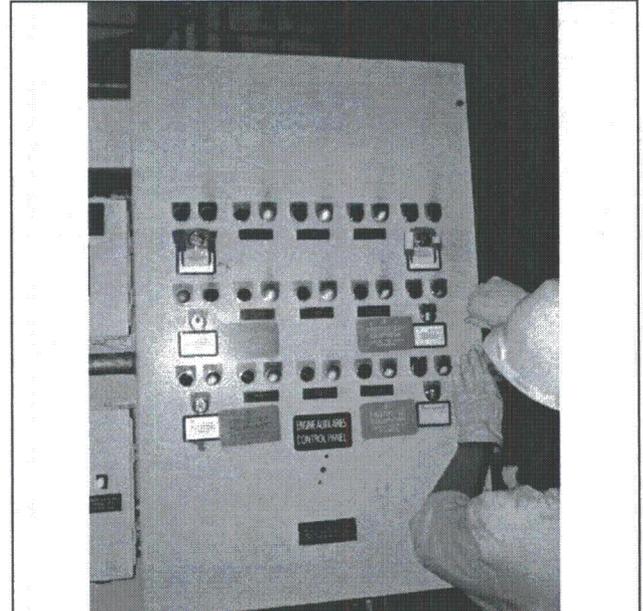
Equipment Description EDG BLDG 72' EL ENGINE AUXILIARIES CTRL PNL

Photographs



Note:

EDG BLDG 72' EL ENGINE AUXILIARIES CTRL PANEL.

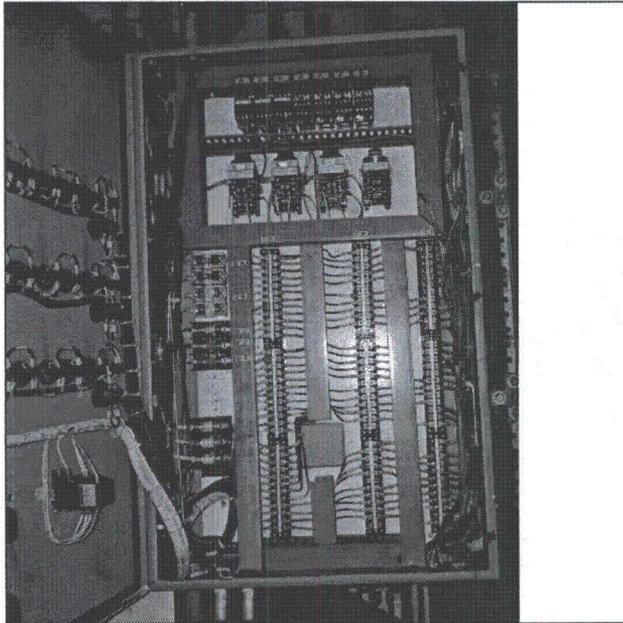


Note:

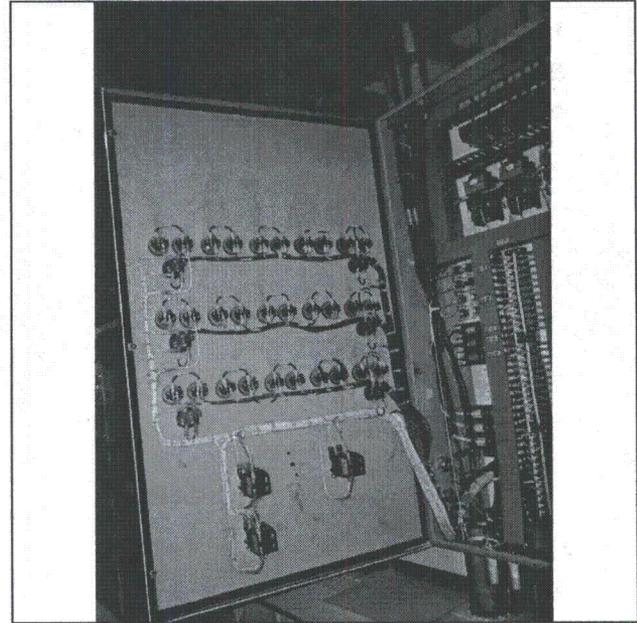
ENGINE AUXILIARIES CTRL PANEL close up

R1

Photographs



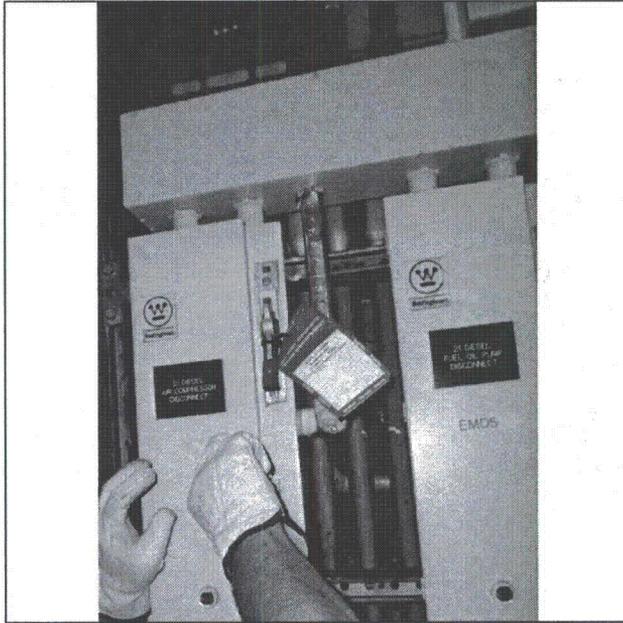
**Note:** EDG ENGINE AUXILIARIES CTRL PANEL



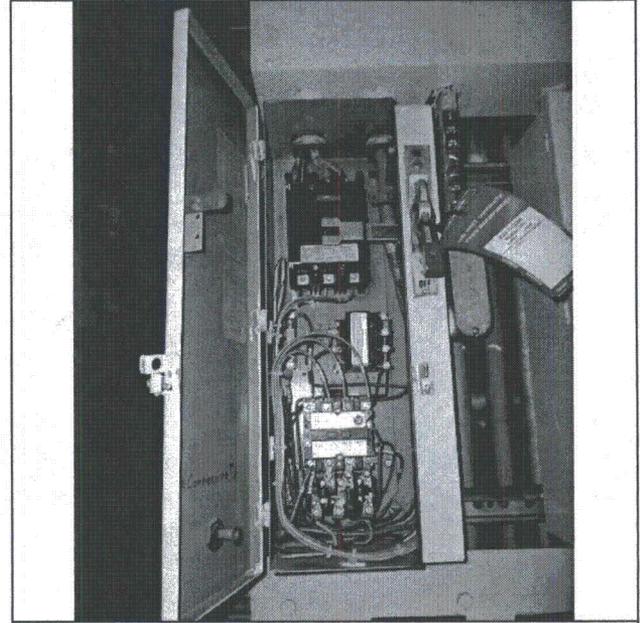
**Note:** EDG ENGINE AUXILIARIES CTRL PANEL

R1

Photographs



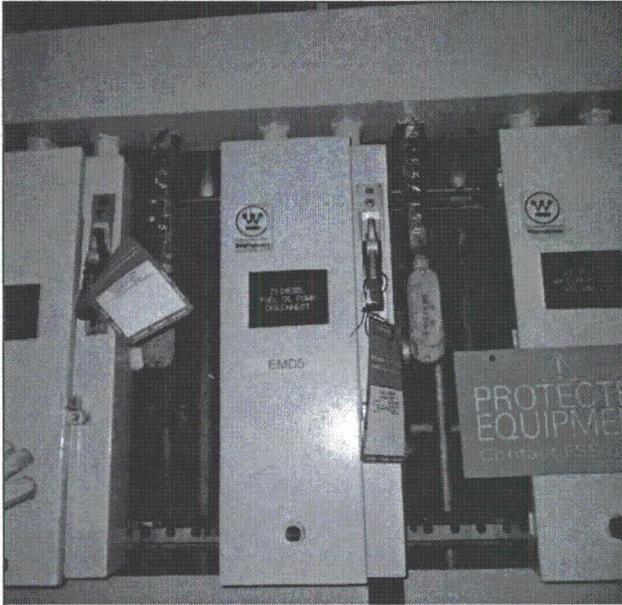
**Note:** 21 Diesel Air Compressor Disconnect



**Note:** 21 Diesel Air Compressor Disconnect

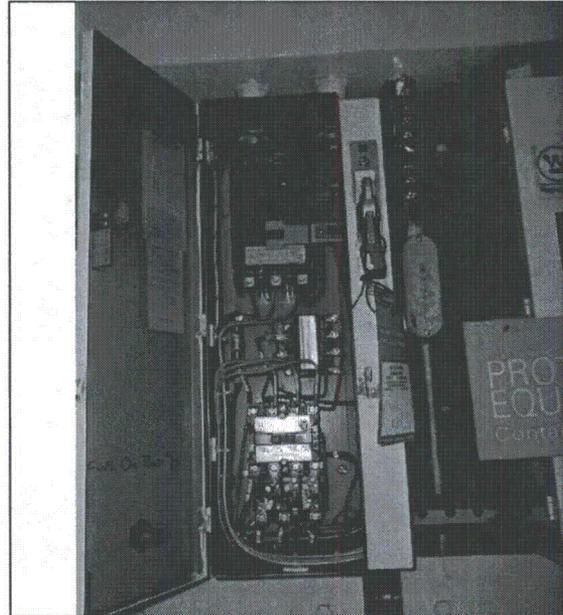
R1

Photographs



Note:

*21 Diesel Fuel Oil Pump Disconnect*

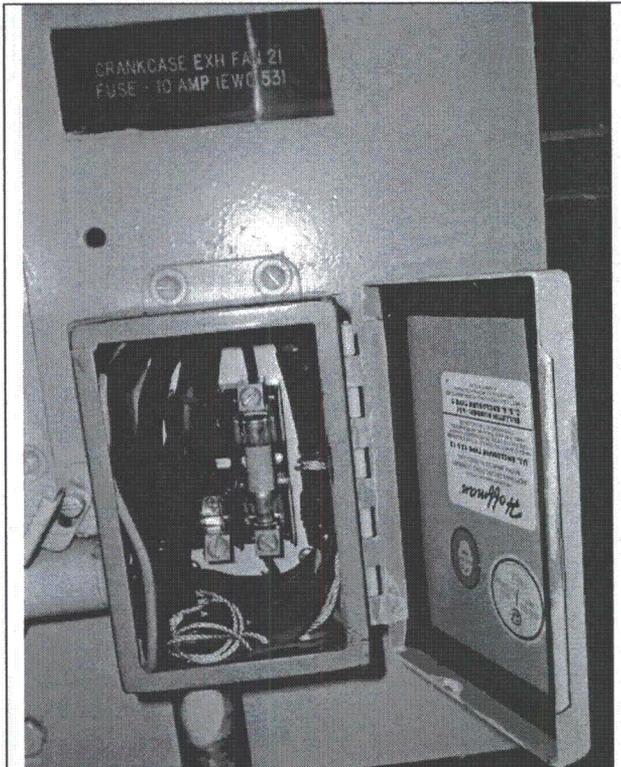


Note:

*21 Diesel Fuel Oil Pump Disconnect*

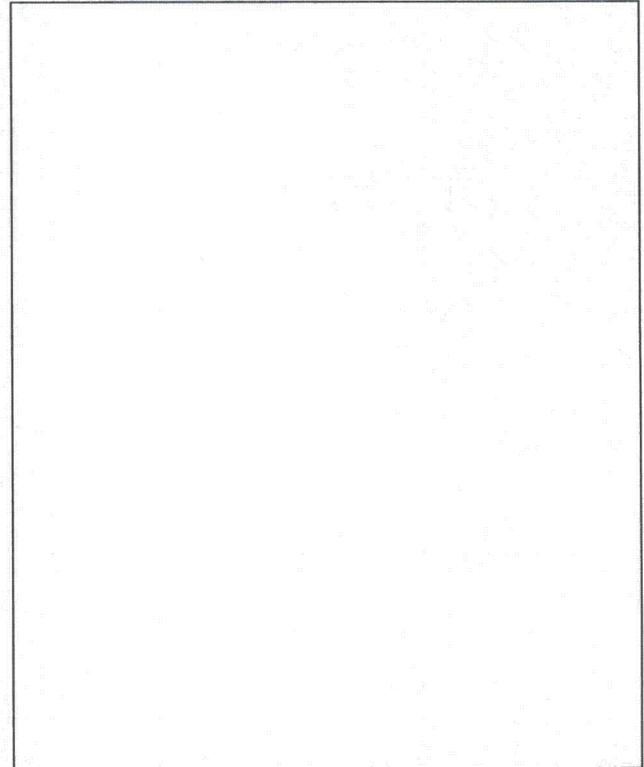
R1

Photographs



**Note:**

*Crankcase Exhaust Fan 21 Fuse Box*



**Note:** *no other photos.*

R1

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-082

Equipment ID No. INST RK 19

Equip. Class<sup>1</sup> 18

Equipment Description INSTRUMENT RACK 19

Location: Bldg. VC

Floor El. 68'-0"

Room, Area \_\_\_\_\_

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

*The anchorage configuration verification is required.*

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

*Anchorage is free of bent, broken, missing and loose hardware.*

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

*Anchorage is free of corrosion that is more than mild surface oxidation.*

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

*Observed two cracks that are approximately < 1/64" near bolts 9 and 12 (see SQUG Rack 19 for bolt numbering scheme). For bolt 9, the crack is approximately 3" away. For bolt 12, the crack is approximately 2" away.*

*LB-16 evaluation was generated to assess the anchorage based on cracked concrete. The evaluation determined that the existing condition is acceptable.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U Seismic Walkdown Checklist (SWC) SWEL1-082Equipment ID No. INST RK 19Equip. Class<sup>1</sup> 18Equipment Description INSTRUMENT RACK 19

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

*Anchorage configuration is consistent with SQUG documentation for Rack 19. However, bolt configuration is not consistent with drawing A208247. CR-IP2-2014-01607 is generated to document this and to update this drawing based on as-built configuration.*

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  
*See question #4.*
- Y  N  U

**Interaction Effects**

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

*Soft targets are free from impact by nearby equipment and structures.*

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 equipment, distribution systems, and lighting are not likely to collapse.*

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

*The equipment is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-082

Equipment ID No. INST RK 19

Equip. Class<sup>1</sup> 18

Equipment Description INSTRUMENT RACK 19

**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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*References: Drawings and AWC*

*Drawings: 9321-F-7027-42 Rev 42 (A-201121), Containment building instrument arrangement sht. 1 instrumentation*

*A201145 Rev 15.*

*AWC-048*

Evaluated by: Maggie Staub



Date: 3/5/14

Kai Lo



3/5/14

Status: Y  N  U

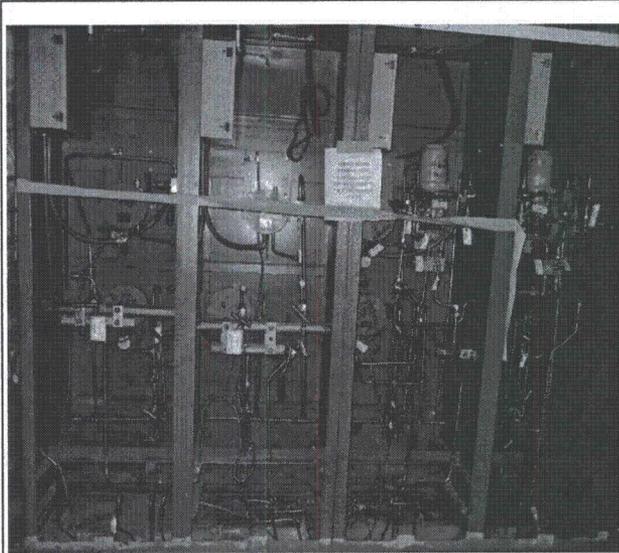
Seismic Walkdown Checklist (SWC) SWEL1-082

Equipment ID No. INST RK 19

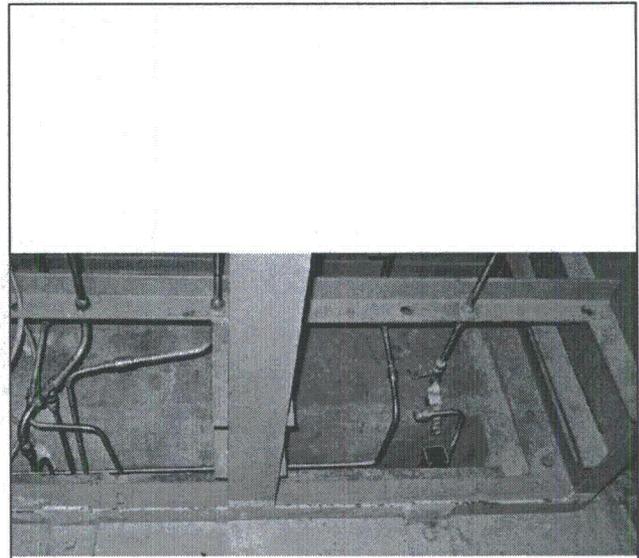
Equip. Class<sup>1</sup> 18

Equipment Description INSTRUMENT RACK 19

**Photographs**



**Note:** Rack 19



**Note:** Anchorage



**Note:** concrete crack at bolt 9



**Note:** concrete crack near bolt 12

Sheet 1 of 4

IP2

Status: Y  N  U Seismic Walkdown Checklist (SWC) SWEL1-083Equipment ID No. INST RK 21Equip. Class<sup>1</sup> 18Equipment Description INSTRUMENT RACK 21Location: Bldg. VC Floor El. 68'-0" Room, Area \_\_\_\_\_

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

*The anchorage configuration verification is required.*

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

*Anchorage is free of bent, broken, missing and loose hardware.*

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

*Anchorage is free of corrosion that is more than mild surface oxidation.*

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

*Anchorage is free of visible cracks.*

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.)

*Anchorage configuration is consistent with drawing A208288-4 and SQUG documentation.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U Seismic Walkdown Checklist (SWC) SWEL1-083Equipment ID No. INST RK 21Equip. Class<sup>1</sup> 18Equipment Description INSTRUMENT RACK 21

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

*The anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

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

*Soft targets are free from impact by nearby equipment and structures.*

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 equipment, distribution systems, and lighting and masonry block walls not likely to collapse.*

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

*Attached line have adequate flexibility.*

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

*The equipment is free of potentially adverse seismic interaction effects.*

**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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

Sheet 3 of 4  
IP2

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-083

Equipment ID No. INST RK 21

Equip. Class<sup>1</sup> 18

Equipment Description INSTRUMENT RACK 21

**Comments** (Additional pages may be added as necessary)

*References: Drawings and AWC*

*Drawings: 9321-F-7027-42 Rev 42 (A-201121), Containment building instrument arrangement sheet no. 1 instrumentation*

*A208248-6 Rev 5, Modification to steam generator level transmitter rack no. 21*

*A208288-4 Rev 4, Steam generator level and main steam flow transmitter rack replacement detail, racks 4A, 4B and 21*

*AWC-040*

Evaluated by: Maggie Staub  Date: 3/5/14

Kai Lo  Date: 3/5/14

Status: Y  N  U

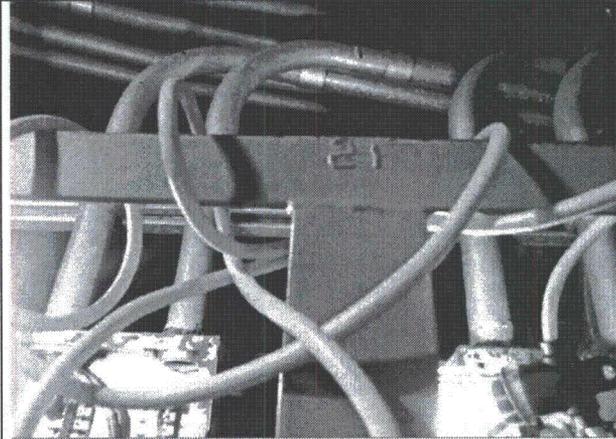
Seismic Walkdown Checklist (SWC) SWEL1-083

Equipment ID No. INST RK 21

Equip. Class<sup>1</sup> 18

Equipment Description INSTRUMENT RACK 21

**Photographs**



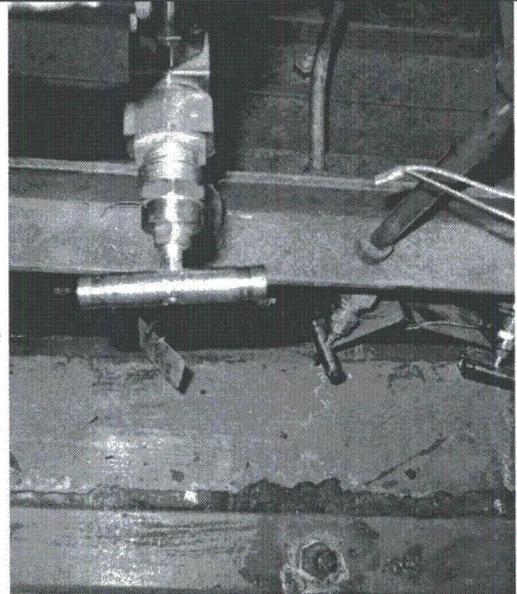
**Note:** Rack 21



**Note:** Rack 21



**Note:** anchor flush with angle as indicated on drawing A208288-4 and SQUG documentation



**Note:** anchorage consistent with drawing A208288-4 and SQUG documentation

Status: Y  N  U **Seismic Walkdown Checklist (SWC) SWEL1-086**Equipment ID No. TE-122Equip. Class<sup>1</sup> 19Equipment Description EXCESS LETDOWN TEMP ELEMENTLocation: Bldg. VCIFloor El. 46'-0"

Room, Area \_\_\_\_\_

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

*The anchorage configuration verification is not required.*

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

*The anchorage is free of bent, broken, missing and loose hardware. Temperature element is welded to pipe.*

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

*The anchorage is free of corrosion that is more than mild surface oxidation.*

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

*Temperature element is welded to pipe.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U Seismic Walkdown Checklist (SWC) SWEL1-086Equipment ID No. TE-122Equip. Class<sup>1</sup> 19Equipment Description EXCESS LETDOWN TEMP ELEMENT

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   
*The anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  
*Soft targets are free from impact by nearby equipment and 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?  
*Overhead equipment, distribution systems, ceiling tiles and lighting are not likely to collapse onto the equipment.* Y  N  U  N/A
9. Do attached lines have adequate flexibility to avoid damage?  
*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?  
*The equipment is free of potentially adverse seismic interaction effects.* Y  N  U

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-086

Equipment ID No. TE-122

Equip. Class<sup>1</sup> 19

Equipment Description EXCESS LETDOWN TEMP ELEMENT

**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

*We have looked and found no other seismic conditions that could adversely affect the safety fuctions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*References: Drawings and AWC*

*Drawings: 9321-F-7028-46 (A201122), Rev 46, Containment building instrument arrangement-sheet no.2 instrumentation.*

*AWC-041*

Evaluated by: Maggie Staub



Date: 3/3/14

Kai Lo



3/3/14

Status: Y  N  U

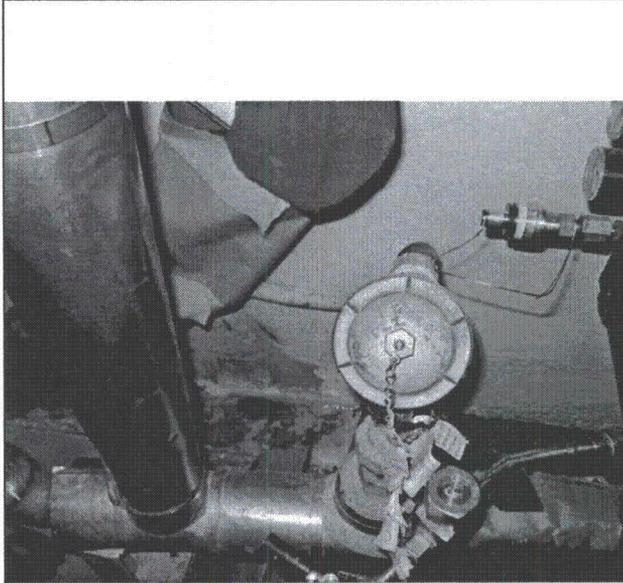
Seismic Walkdown Checklist (SWC) SWEL1-086

Equipment ID No. TE-122

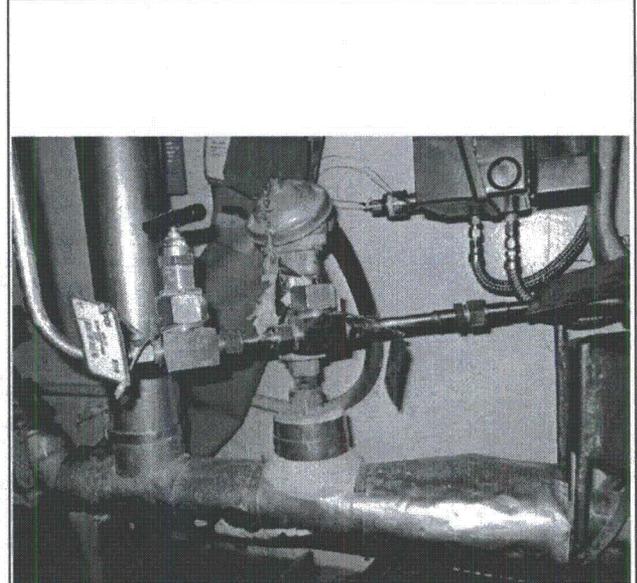
Equip. Class<sup>1</sup> 19

Equipment Description EXCESS LETDOWN TEMP ELEMENT

**Photographs**



**Note:** TE-122



**Note:** TE-122

Status: Y  N  U

R1

**Seismic Walkdown Checklist (SWC) SWEL1-087**

Equipment ID No. PNL PP9

Equip. Class<sup>1</sup> 20

Equipment Description EDG 21 CONTROL PANEL

Location: Bldg. EDG Floor El. 72'-0" Room, Area \_\_\_\_\_

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

*No, the anchorage configuration verification is not required.*

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

*Internal anchorage was inspected during 21EDG ATO and internal anchorage was inspected. See sheet 3.*

*External anchors were inspected and are free of bent, broken, missing or loose hardware.*

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

*No corrosion found on external bolts. Internal bolts were inspected when panel was opened during 21EDG ATO.*

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

*Internal bolts were inspected when panel was opened. No visible cracks at external anchors during 21EDG ATO.*

R1

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U 

R1

**Seismic Walkdown Checklist (SWC) SWEL1-087**Equipment ID No. PNL PP9Equip. Class<sup>1</sup> 20Equipment Description EDG 21 CONTROL PANEL

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.)

*Not applicable since component is not part of the anchorage configuration verification.*

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

*Anchorage internal to cabinet was inspected during 21EDG ATO and there is no it is free of potentially adverse seismic conditions.*

R1

**Interaction Effects**

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

*The 21EDG control panel has a side synch panel. The side synch panel is free to swing on hinge into 21EDG control panel. Restraint bracket on bottom of side panel is broken. Operations personnel reattached and repaired restraint bracket immediately in our presence. CR IP2-2012-6207 issued for tracking purposes.*

*Swing of the side synch panel will be limited because the two nuts will act as a restraint.*

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

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

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

*Yes attached lines have adequate flexibility to avoid damage.*

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

*Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.*

Status: Y  N  U

R1

**Seismic Walkdown Checklist (SWC) SWEL1-087**

Equipment ID No. PNL PP9

Equip. Class<sup>1</sup> 20

Equipment Description EDG 21 CONTROL PANEL

**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

*Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Panel on north end of #23 EDG control panel is missing 1 of 24 bolts. Bottom latch of #22 and #23 EDG control panel not latched. Operations personnel fixed issues on the spot in our presence. CR IP2-2012-06238 issued for tracking.*

*References: Drawings and AWC*

*Drawings: 9321-H-2250, Rev 7, Diesel generator building general arrangement plan.  
AWC-011*

*A bolt connecting the top cover panel to steel frame is missing a nut. Since the vertical seismic acceleration is less than 1.0, there is no uplift and just shear. The remaining bolts will be adequate to restraint the top cover panel in place. This condition is captured by CR-IP2-2013-04549. Slight surface rust was observed at the top panel bolt holes.*

R1

Evaluated by: Kai Lo  Date: 11-12-2013

John Skonieczny  11-12-2013

R1

Status: Y  N  U

R1

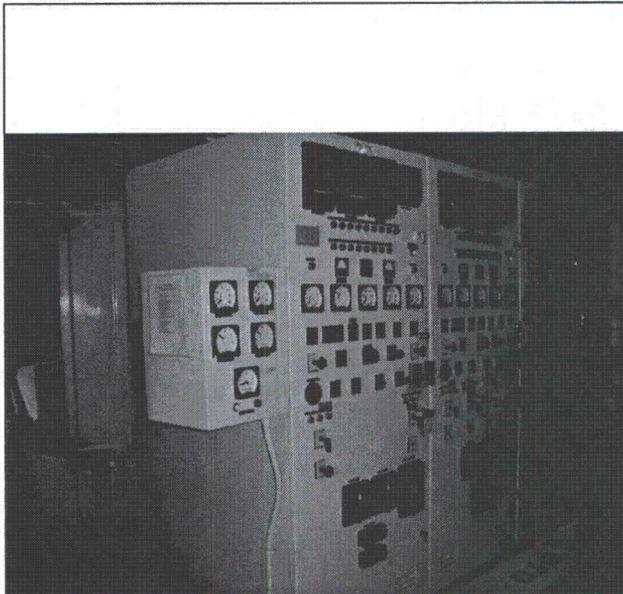
Seismic Walkdown Checklist (SWC) SWEL1-087

Equipment ID No. PNL PP9

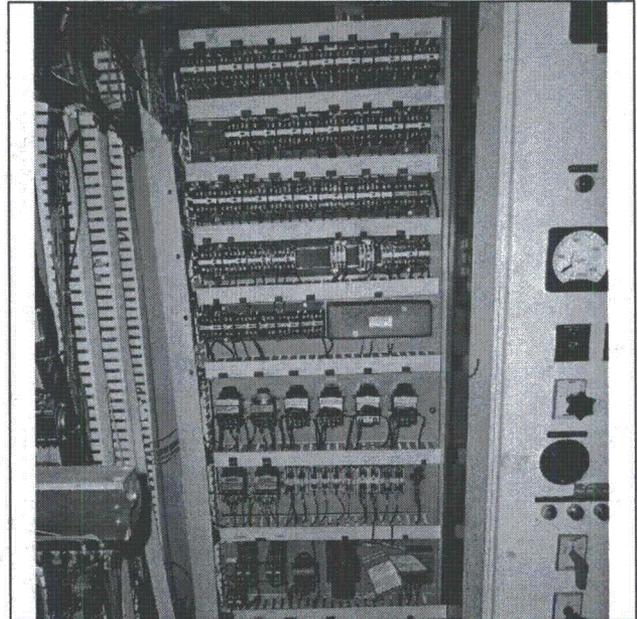
Equip. Class<sup>1</sup> 20

Equipment Description EDG 21 CONTROL PANEL

Photographs



**Note:** EDG 21 control panel showing side Synch panel that is free to swing.



**Note:** EDG 21 control panel

R1

Status: Y  N  U

R1

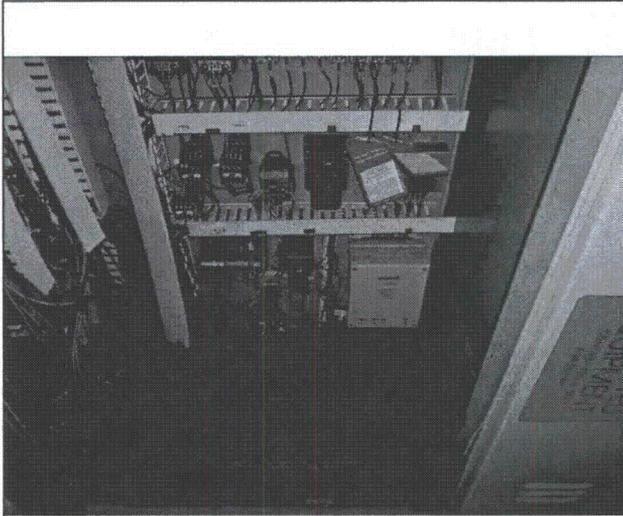
Seismic Walkdown Checklist (SWC) SWEL1-087

Equipment ID No. PNL PP9

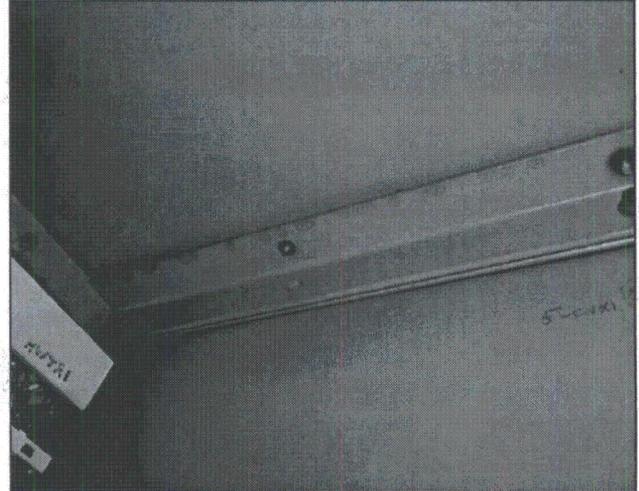
Equip. Class<sup>1</sup> 20

Equipment Description EDG 21 CONTROL PANEL

**Photographs**



**Note:** *EDG 21 control panel anchorage*



**Note:** *A bolt on the top cover panel is missing a nut. Slight surface rust at the bolt holes.*

R1

Status: Y  N  U

R1

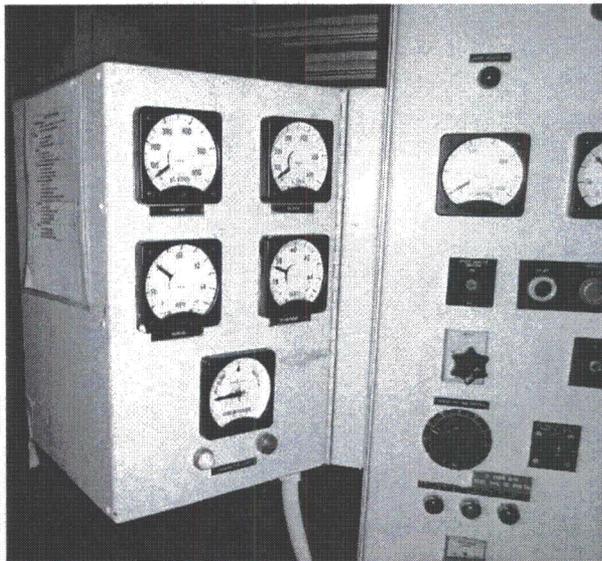
Seismic Walkdown Checklist (SWC) SWEL1-087

Equipment ID No. PNL PP9

Equip. Class<sup>1</sup> 20

Equipment Description EDG 21 CONTROL PANEL

Photographs



**Note:** Side synch panel of the 21EDG control Panel



**Note:** Side synch panel is restraint by the two nuts during a seismic event and horizontal movement will be limited.

R1

Status: Y  N  U Seismic Walkdown Checklist (SWC) SWEL1-101Equipment ID No. 21ATEquip. Class<sup>1</sup> 21Equipment Description 21 SIS ACCUMULATORLocation: Bldg. VCFloor El. 46'-0"

Room, Area \_\_\_\_\_

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

*The anchorage configuration verification is required.*

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

*The anchorage is free of bent, broken, missing or loose hardware.*

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

*The anchorage is free of corrosion that is more than mild surface oxidation.*

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

*The anchorage is free of visible cracks in the concrete near the anchors.*

<sup>1</sup> Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y  N  U Seismic Walkdown Checklist (SWC) SWEL1-101Equipment ID No. 21ATEquip. Class<sup>1</sup> 21Equipment Description 21 SIS ACCUMULATOR

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.)

*The anchorage configuration is consistent with drawing 9321-01-2921-1.*

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

*The anchorage is free of potentially adverse seismic conditions.*

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures? Y  N  U  N/A   
*Soft targets are free from impact by nearby equipment or structures.*

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

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

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

Status: Y  N  U

Seismic Walkdown Checklist (SWC) SWEL1-101

Equipment ID No. 21AT

Equip. Class<sup>1</sup> 21

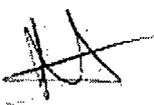
Equipment Description 21 SIS ACCUMULATOR

**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   
*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*References: Drawings and AWC  
 Drawings: S/O 41042 Rev 6, IPP-2 Accumulator tank  
 A205745-11, Rev 11, Instrumentation.  
 MIC no. 1999MC3434 Rev 17A Containment building general arrangement plans sheet 3  
 9321-01-2921-1  
 AWC-038*

Evaluated by: Maggie Staub  Date: 3/3/14

Kai Lo  3/3/14

Status: Y  N  U

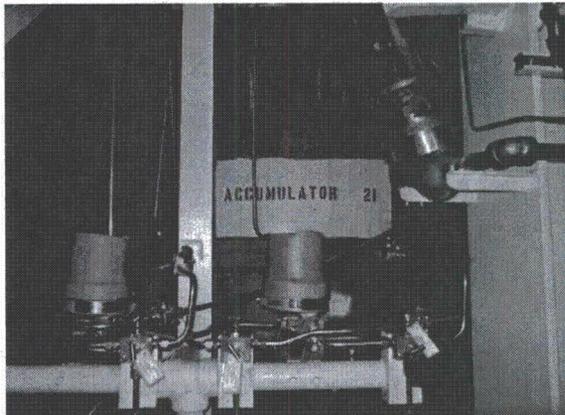
Seismic Walkdown Checklist (SWC) SWEL1-101

Equipment ID No. 21AT

Equip. Class<sup>1</sup> 21

Equipment Description 21 SIS ACCUMULATOR

**Photographs**



**Note:** 21 SIS Accumulator



**Note:** 21 SIS Accumulator - anchorage

ATTACHMENT K – DEFERRED AREA WALK-BY CHECKLISTS (AWCs)

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 037Location: Bldg. CB Floor El. 53'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-063, SWEL1-064**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 appears to be free of potentially adverse seismic conditions.*

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

*Equipment appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 037Location: Bldg. CB Floor El. 53'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-063, SWEL1-064

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

*All ceiling tiles are tied to the supporting frame.*

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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

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

*Observed a cart with equipment and cables near OPS Analog Channel No. 1 panel. The cart has four wheels that are not locked nor have wheel lock mechanism (see photos). During a seismic event, the cart may dislodge and strike nearby panels such as supervisory panel. This is addressed in CR-IP2-2014-01660.*

Sheet 3 of 4

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 037

Location: Bldg. CB Floor El. 53'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-063, SWEL1-064

- 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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area.*

**Comments** (Additional pages may be added as necessary)

Evaluated by: Maggie Staub  Date: 3/7/14

Kai Lo  3/7/14

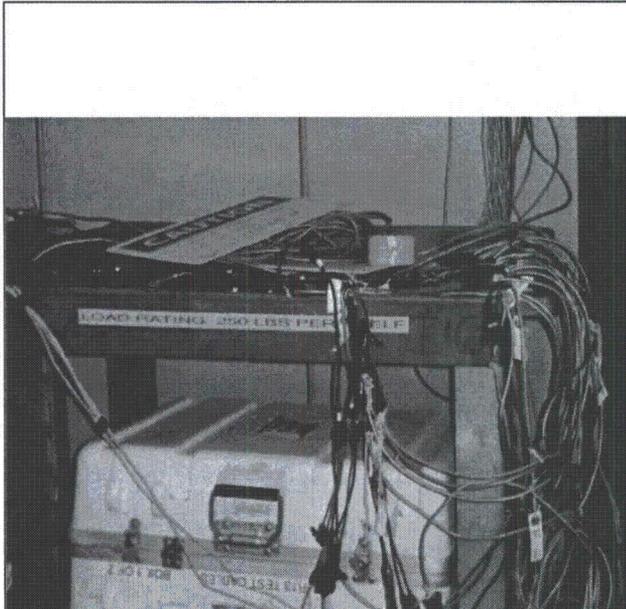
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 037

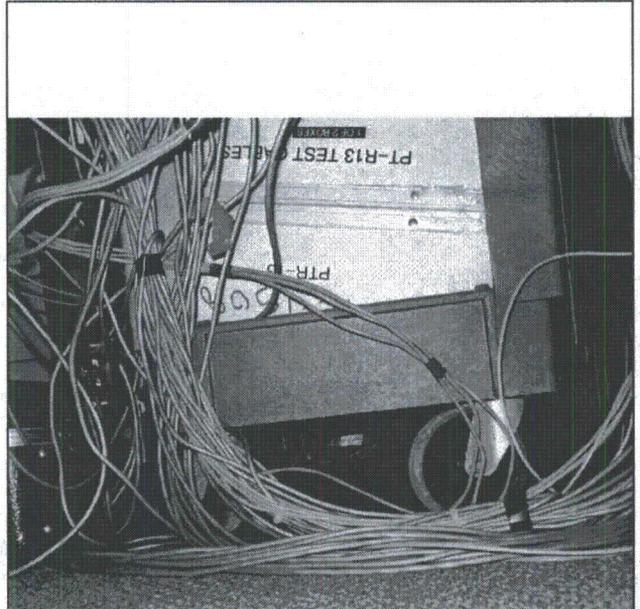
Location: Bldg. CB Floor El. 53'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-063, SWEL1-064

Photographs



**Note:** cart near OPS Analog Channel No. 1 panel



**Note:** cart near OPS Analog Channel No. 1 panel

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 038Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-101**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

*The anchorage of equipment in the area appears to be free of potentially adverse seismic conditions.*

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

*The anchorage of equipment in the area appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 038Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-101

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

*The area is free of potentially adverse seismic spatial interactions with other equipment.*

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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

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

*Observed temporary tools and scaffolding used for outage. These will be removed once outage is done based on Attachment 7 of procedure OAP-007. The scaffolding is noted to be well anchored. Therefore, the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 038

Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-101

- 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

*Observed a cable tray support and u-bolt near equipment 21AT that have surface oxidation (see photos). This is judged to be acceptable. Therefore, We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area.*

Comments (Additional pages may be added as necessary)

Evaluated by: Maggie Staub



Date: 3/3/14

Kai Lo



3/3/14

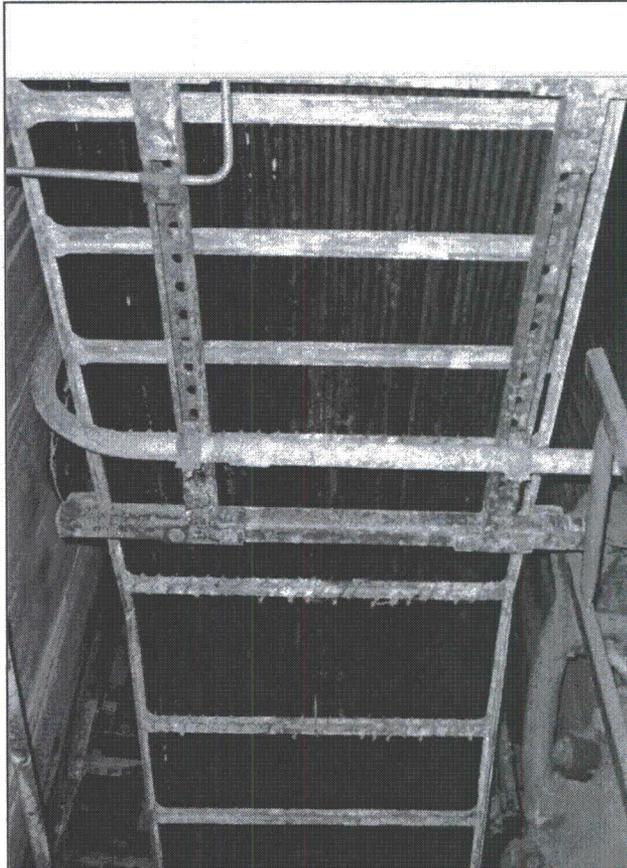
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 038

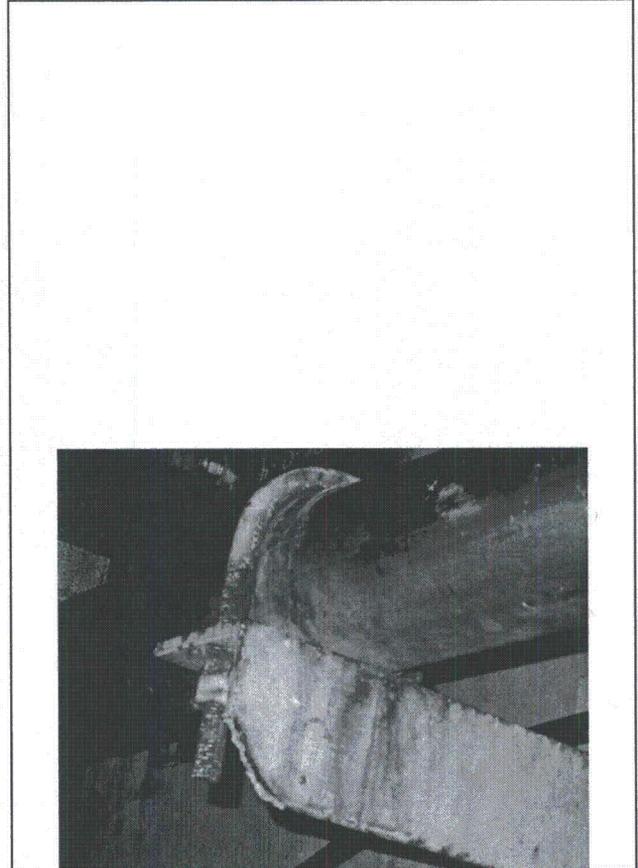
Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-101

Photographs



**Note:** Cable tray support near 21 SIS Accumulator



**Note:** U-bolt near 21 SIS Accumulator

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 039Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-003**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

*The anchorage of equipment in the area appears to be free of potentially adverse seismic conditions.*

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

*The anchorage of equipment in the area appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 039Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-003

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

*The area is free of potentially adverse seismic spatial interactions with other equipment.*

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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

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

*Observed several temporary tools, scaffolding and loose flex conduits/cables (see photo) being used for the outage. These would be removed once the outage is over as documented in Attachment 7 of procedure OAP-007. Therefore, the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations.*

Sheet 3 of 4

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 039

Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-003

- 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

*Observed mild surface oxidation on a nut of a pipe support near 22AT (see photo). This is considered acceptable since its only surface oxidation.*

Comments (Additional pages may be added as necessary)

Evaluated by: Maggie Staub



Date: 3/3/14

Kai Lo



3/3/14

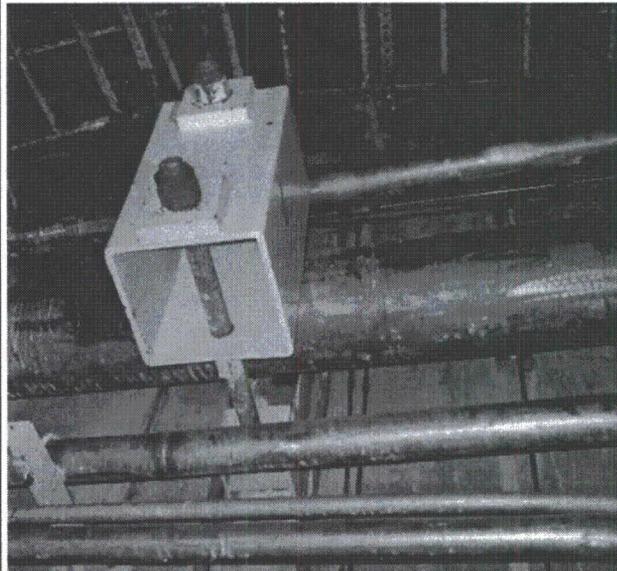
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 039

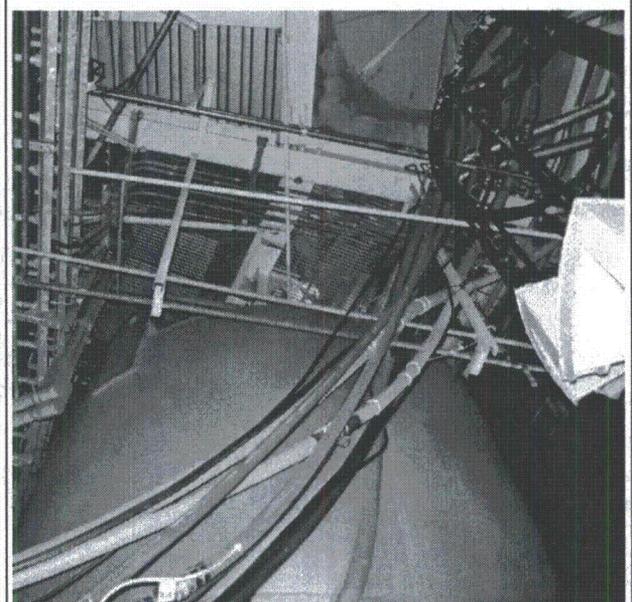
Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-003

Photographs



**Note:** pipe support near 22AT



**Note:** loose flex conduits & cables near 22AT

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 040Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-083**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

*The anchorage of equipment in the area appears to be free of potentially adverse seismic conditions.*

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

*The anchorage of equipment in the area appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 040Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-083

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

*The area is free of potentially adverse seismic spatial interactions with other equipment.*

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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

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

*Observed temporary tools and buckets near Rack 21 being used for the outage (see attached photo). These will be removed once the outage is done based on Attachment 7 of procedure OAP-007.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 040

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

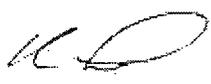
SWEL Components: SWEL1-083

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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area.*

Comments (Additional pages may be added as necessary)

Evaluated by: Maggie Staub  Date: 3/5/14

Kai Lo  3/5/14

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 040

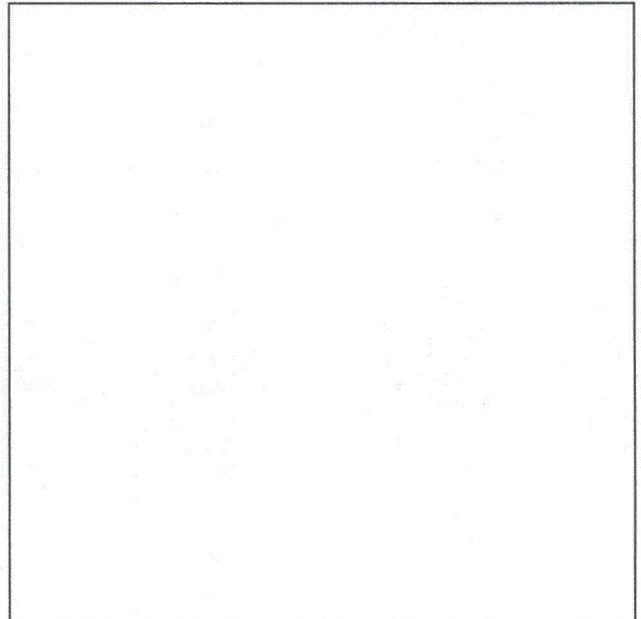
Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-083

Photographs



**Note:** *misc tool and buckets*



**Note:** *no photo*

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 041Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-086**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

*The anchorage of equipment in the area appears to be free of potentially adverse seismic conditions.*

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

*The anchorage of equipment in the area appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 041Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-086

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

*The area is free of potentially adverse seismic spatial interactions with other equipment.*

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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

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 outage equipment and scaffolding were present and will be removed once outage is over. This is in accordance with Attachment 7 of procedure OAP-007.*

*The scaffolding was noted to be well anchored. Therefore, the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 041

Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-086

- 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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area.*

**Comments** (Additional pages may be added as necessary)

Ref: SWEL1-086

Evaluated by: Maggie Staub  Date: 3/3/14

Kai Lo  3/3/14

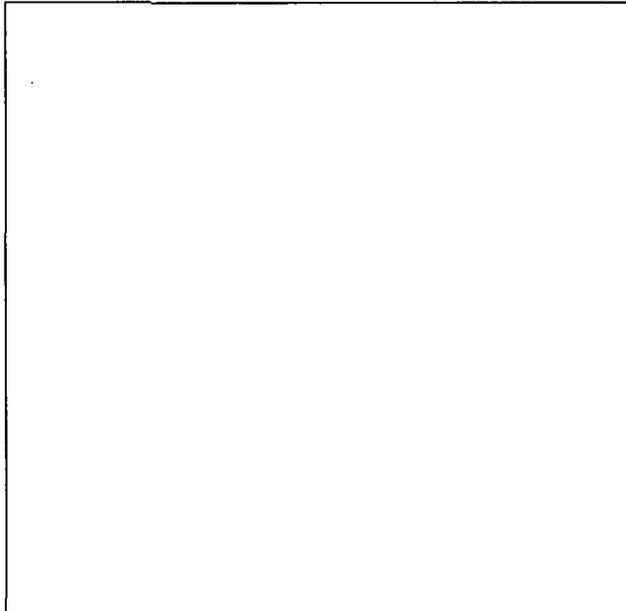
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 041

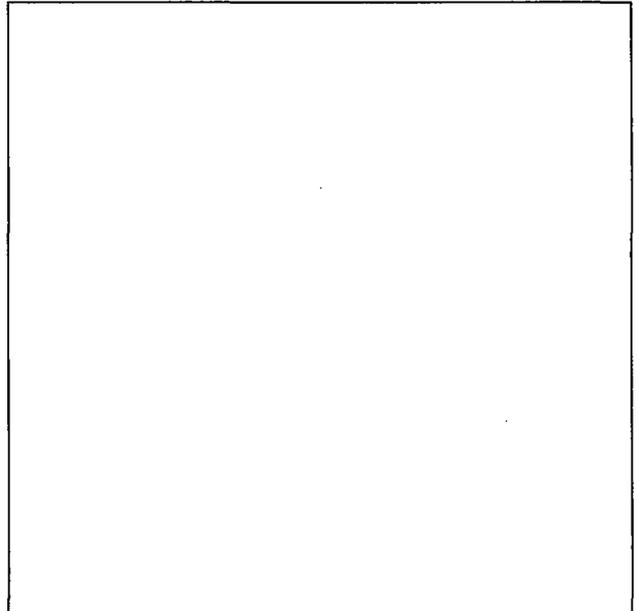
Location: Bldg. VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-086

**Photographs**



**Note:** *no photo.*  
*No deficiencies were noted and no pictures were required.*



**Note:** *no photo*  
*No deficiencies were noted and no pictures were required.*

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 042Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-052**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

*A vertical Unistrut member of a rack located between column 12 and 13 has a broken weld. The vertical Unistrut on the left and right have good weld. The rack is lightly loaded with a multiple of 3/8" weld channel CS tubings, 1" conduit and 1.5" pipes. This condition is identified by CR-IP2-2014-01250. LB-15 evaluated this condition and determined that the 3/8" tubing (most critically stressed) is structurally adequate without the broken weld Unistrut.*

*Unistrut was welded properly prior to end of outage (W.O. 00376005).*

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

*See item 1*

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

*Slight surface rust on pipe whip restraint's cable.*

<sup>1</sup> 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.

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 042

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-052

- 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

*The area is free of potentially adverse seismic spatial interactions with other equipment in the 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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

- 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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

- 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

*The inspection is performed during the RFO, so tools and various equipment are stored on the floor. These items will be removed per OAP-007. Being enclosed by a very rugged steel structure, the charcoal filter room appeared to be used for storage.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 042

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-052

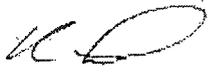
- 8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y  N  U

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

1. The structural steel beam above has a burnt mark and appeared to be superficial, i.e. on the surface.
2. Service Water Program engineer wrote CR-IP2-2014-01478 to identify surface rusting, loose and flaking exterior coating on the 3" supply and return piping spools between the 10" header and cooling coils.

Evaluated by: Kai Lo



Date: 2-27-2014

Dan Nuta



2-27-2014

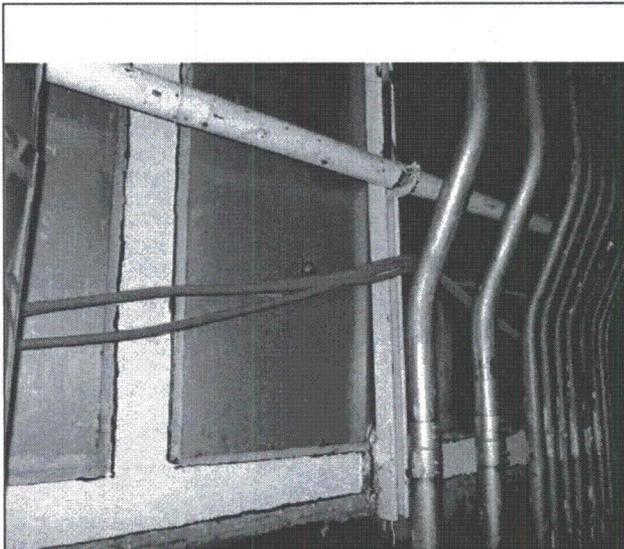
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 042

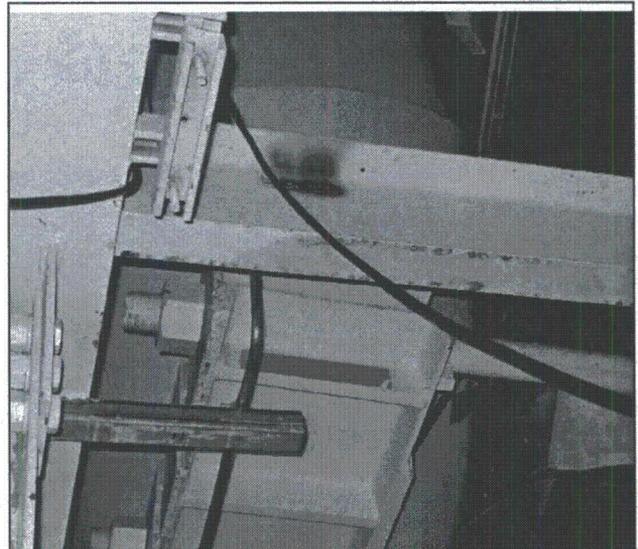
Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-052

Photographs



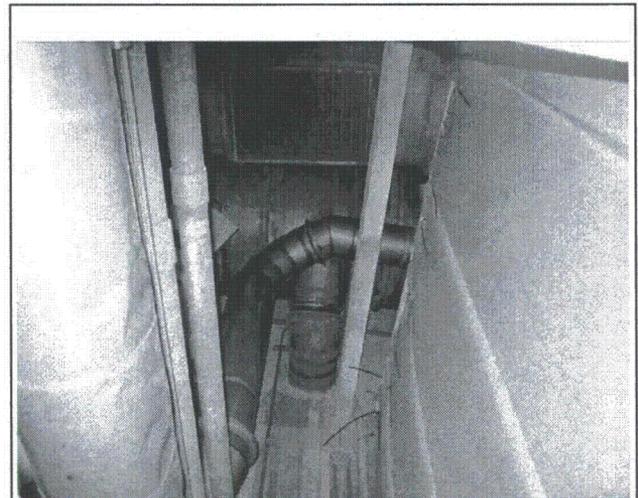
**Note:** Broken weld on vertical Unistrut



**Note:** burnt mark on the structural steel beam



**Note:**  
Surface rust on the pipe whip cable restraint



**Note:**  
Surface rust on the flanges of the duct near EL. 95'

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 043Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-053**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

*The area appears to be free of potentially adverse seismic conditions.*

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

*The area appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 043Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-053

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

*The area is free of potentially adverse seismic spatial interactions with other equipment in the 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

*The area is free of potentially adverse seismic interactions that could cause flooding.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

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

*The inspection is performed during the RFO, so tools and various equipment are stored on the floor. These items will be removed per OAP-007. Being enclosed by a very rugged steel structure, the charcoal filter room appeared to be used for storage.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 043

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-053

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

*We have looked and found no other seismic conditions that could adversely affect safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

- 1. Spots of worn out coating on the floor.
- 2. Loose nut on the floor, a house keeping issue.

Evaluated by: Kai Lo  Date: 2-27-2014

Dan Nuta  2-27-2014

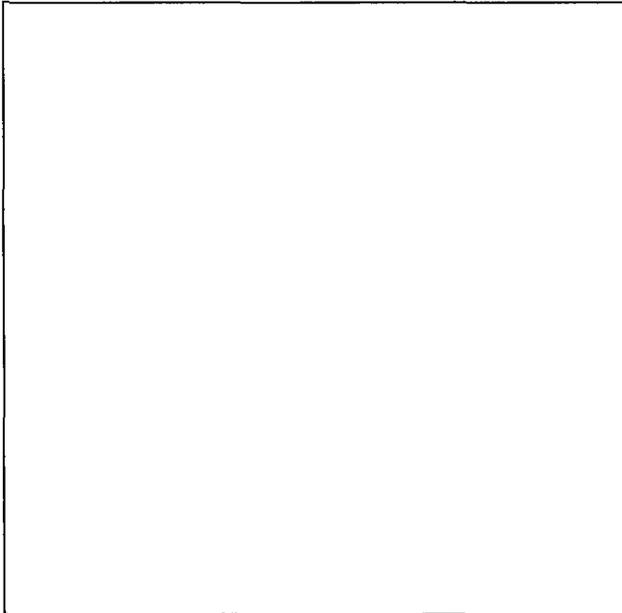
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 043

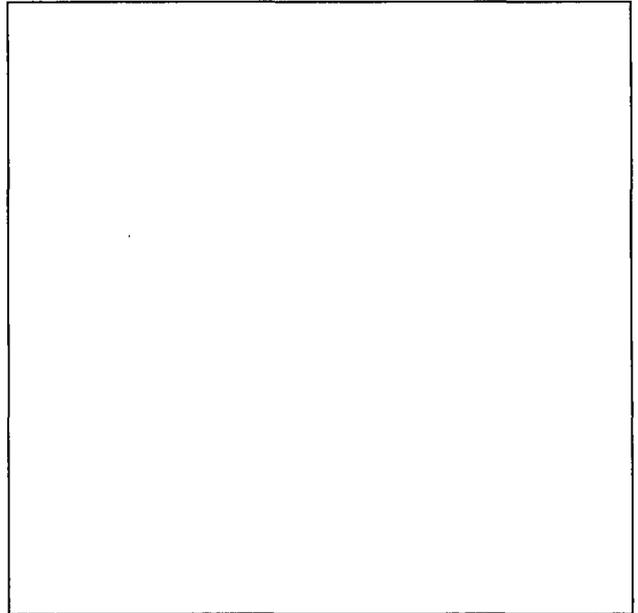
Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-053

Photographs



**Note:** *No photos.  
No deficiencies were noted and no pictures were required.*



**Note:** *No photos.  
No deficiencies were noted and no pictures were required.*

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 044Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-054**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 appears to be free of potentially adverse seismic conditions.*

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

*Anchorage appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic condition.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 044Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-054

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

*The area is free of potentially adverse seismic spatial interaction with other equipment in the 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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interaction that could cause a fire.*

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

*Observed tools and scaffolding being used for the outage. These will be removed once the outage is over in accordance with Attachment 7 or OAP-007. Therefore, no adverse seismic interaction.*

*Observed permanent scaffolding storage rack that has been previously evaluated. This has no adverse seismic interactions.*

*Observed a stainless steel wall liner not fully attached to the wall. This is documented in CR-IP2-2014-01023. This has no adverse seismic interaction. It is only a housekeeping matter.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 044

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-054

- 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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Loose containment stainless steel liner previously addressed by the construction group and wrote CR-IP2-2014-01128.*

Evaluated by: Maggie Staub



Date: 3/6/14

Kai Lo



3/6/14

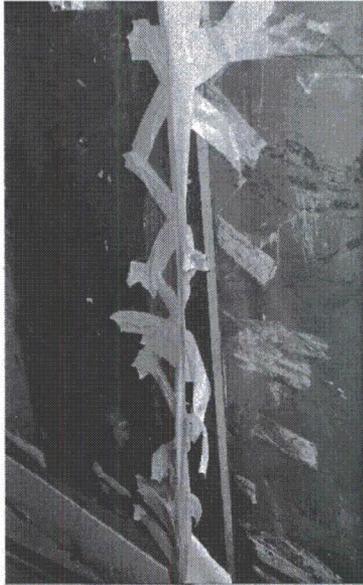
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 044

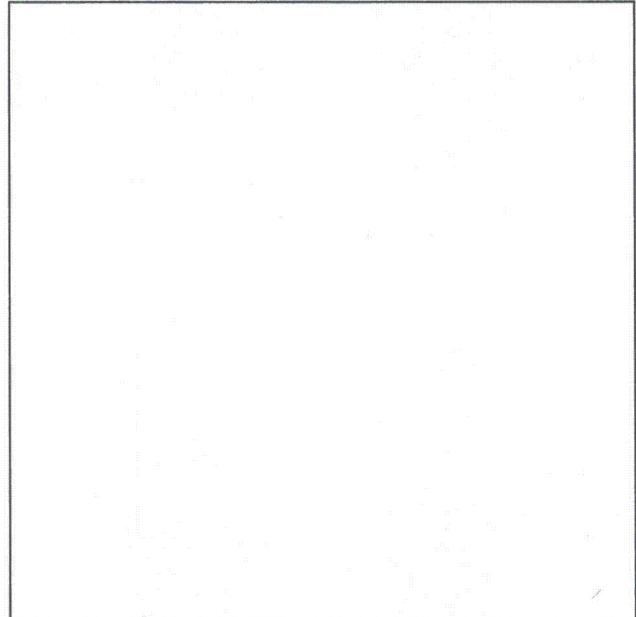
Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-054

Photographs



**Note:** *stainless steel wall liner not fully attached to wall*



**Note:** *no photo*

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 045Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-055**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

*The anchorage in the area appears to be free of potentially adverse seismic conditions.*

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

*Anchorage appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 045

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-055

- 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

*The area is free of potentially adverse seismic spatial interactions.*

- 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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

- 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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

- 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

*Observed tools and equipment being used for the outage. These will be removed once the outage is over in accordance with Attachment 7 of OAP-007.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 045

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-055

- 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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment.*

**Comments** (Additional pages may be added as necessary)

*Observed piping that is rusted outside of 24CRF. This is being addressed in CR-IP2-2014-01654. This CR states that that this is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions.*

Evaluated by: Maggie Staub  Date: 3/6/14

Kai Lo  3/6/14

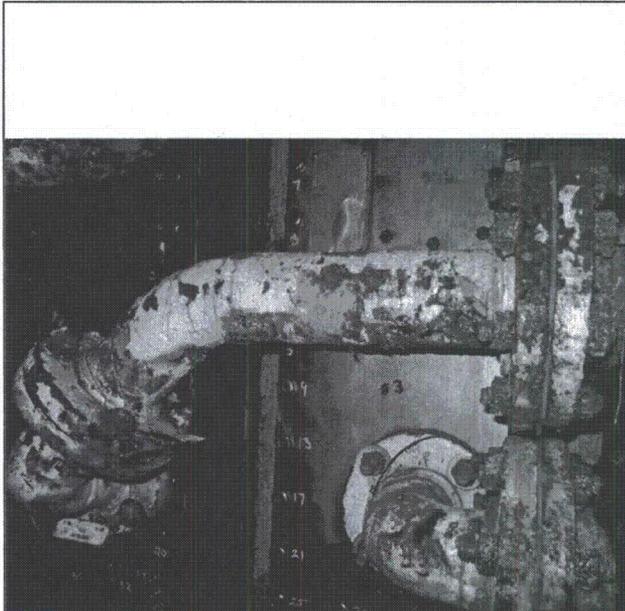
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 045

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-055

Photographs



**Note:** *rusted piping near 24CRF*



**Note:** *no photo*

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 046Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-056**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

*The anchorage of equipment in the area appears to be free of potentially adverse seismic conditions.*

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

*The anchorage of equipment in the area appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 046Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-056

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

*The area is free of potentially adverse seismic spatial interactions with other equipment.*

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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire.*

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

*Observed tools being used for the outage. These tools are for temporary usage and will be removed once outage is over. This is in accordance with Attachment 7 of procedure OAP-007. Therefore, the area is free of potentially adverse seismic interactions associated with housekeeping practices.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 046

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-056

- 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

*Observed a checkered floor plate (at elevation 95', above) with several weld marks (see photos). The plate is judged to be acceptable.*

*Observed light surface oxidation on a U-bolt for a pipe support (see photos). This is judged to be adequate since its only surface oxidation.*

*Observed rusted piping with poor coating near FCU #25 (see photo). This has been already addressed in CR-IP2-2014-01596. The CR concluded that this is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions.*

Comments (Additional pages may be added as necessary)

Evaluated by: Maggie Staub



Date: 3/4/14

Kai Lo



3/4/14

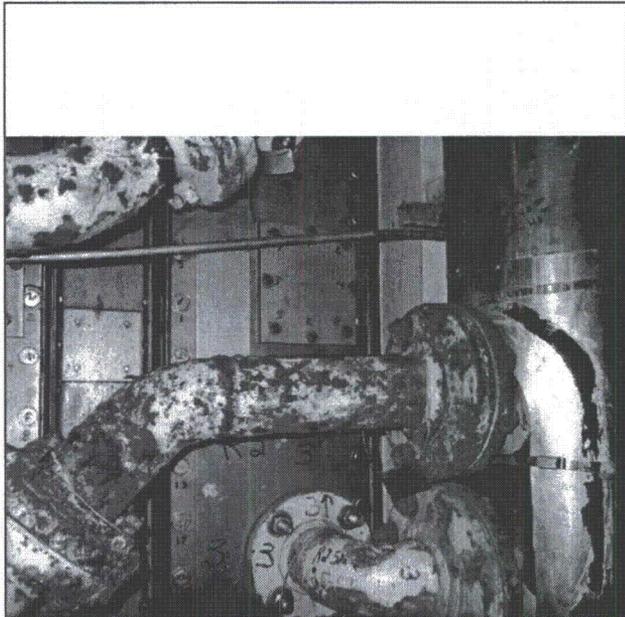
Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 046

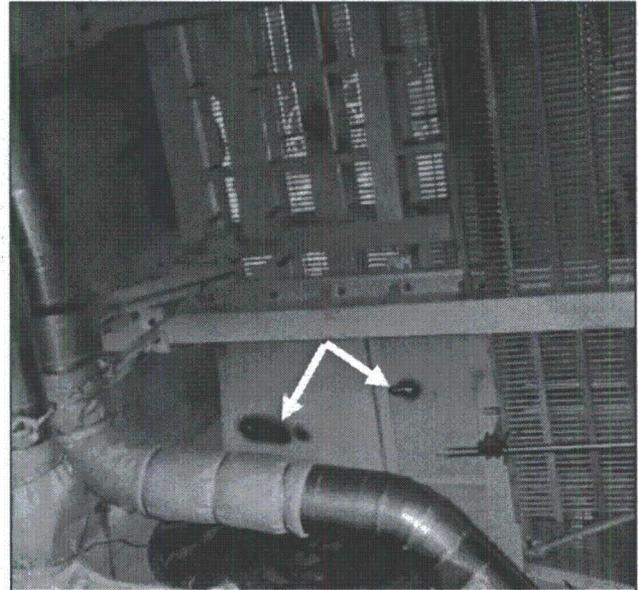
Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-056

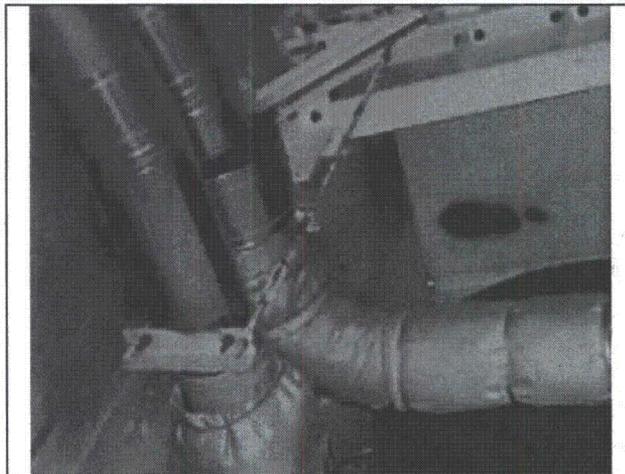
Photographs



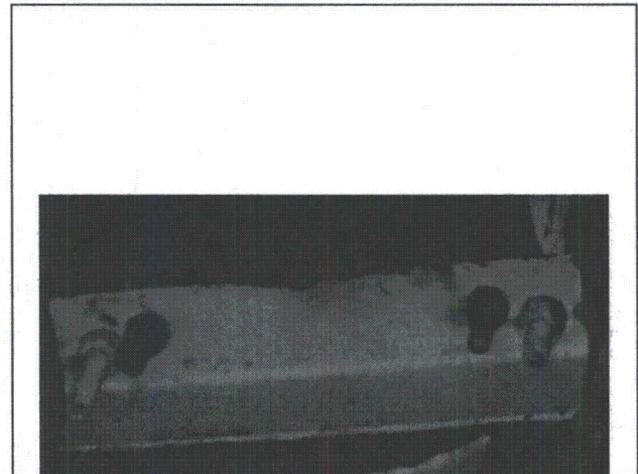
**Note:** Corroded pipes near FCU #25



**Note:** weld marks on checkered floor plate



**Note:** light surface oxidation on u-bolt



**Note:** light surface oxidation on u-bolt

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 047Location: VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_  
Bldg. \_\_\_\_\_SWEL SWEL1-033

## Components: \_\_\_\_\_

**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

*The anchorage of equipment in the area appears to be free of potentially adverse seismic conditions.*

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

*The anchorage of equipment in the area appears to be free of significant degraded conditions.*

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/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Sheet 2 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 047Location: VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_  
Bldg. \_\_\_\_\_SWEL SWEL1-033

## Components:

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

*The area is free of potentially adverse seismic spatial interactions with other equipment in the 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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire*

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

*Observed scaffolding in the area that seemed to be well anchored. The scaffolding is temporary and will be removed after the outage. Therefore, the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 047

Location: VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_  
Bldg. \_\_\_\_\_

SWEL SWEL1-033

Components: \_\_\_\_\_

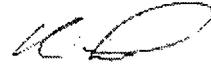
- 8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y  N  U

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area.*

Comments (Additional pages may be added as necessary)

Ref: SWEL1-033

Evaluated by: Maggie Staub  Date: 3/3/14

Kai Lo  3/3/14

Status: Y  N  U

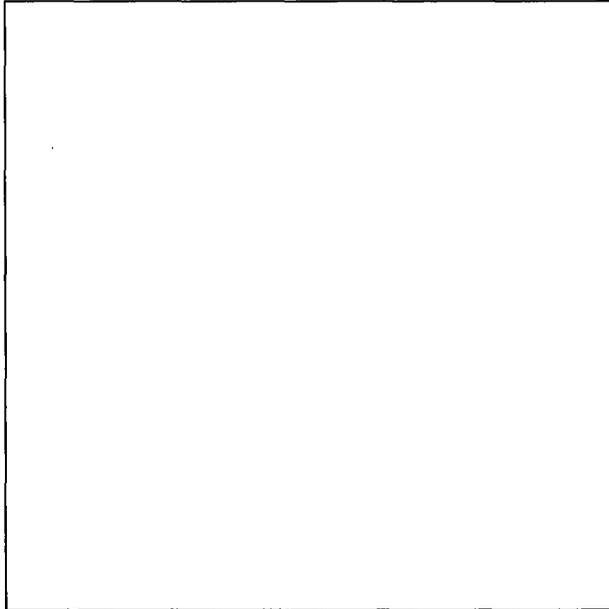
Area Walk-By Checklist (AWC) AWC- 047

Location: VC Floor El. 46'-0 Room, Area<sup>1</sup> \_\_\_\_\_  
Bldg. \_\_\_\_\_

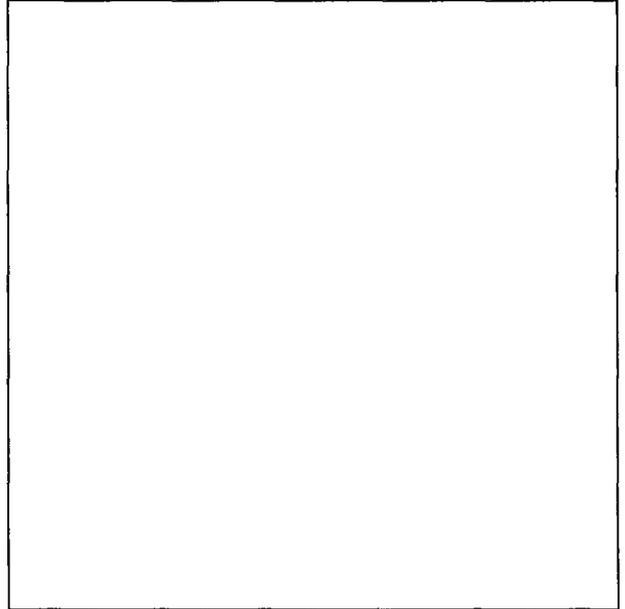
SWEL SWEL1-033

Components: \_\_\_\_\_

Photographs



**Note:** *no photo*  
*No deficiencies were noted and no pictures were required.*



**Note:** *no photo*  
*No deficiencies were noted and no pictures were required.*

Sheet 1 of 4

Status: Y  N  U Area Walk-By Checklist (AWC) AWC- 048Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_SWEL Components: SWEL1-082**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 appears to be free of potentially adverse seismic conditions.*

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

*Anchorage of equipment in the area appears to be free of significant degraded conditions.*

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/conduit raceway and HVAC ducting appear to be free of potentially adverse seismic conditions.*

<sup>1</sup> 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.

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 048

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-082

- 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

*The area is free of potentially adverse seismic spatial interactions.*

- 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

*The area is free of potentially adverse seismic interactions that could cause flooding or spray in the area.*

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

*The area is free of potentially adverse seismic interactions that could cause a fire in the area.*

- 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

*Observed a bucket, small tools and gages on the floor. These are being used for the outage and will be removed at the end of the outage in accordance with Attachment 7 or OAP-007.*

*Observed a pipe (by column line 1) near Rack 19 with missing insulation. This causes no adverse seismic interactions.*

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 048

Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-082

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

*We have looked and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area.*

Comments (Additional pages may be added as necessary)

Evaluated by: Maggie Staub  Date: 3/5/14

Kai Lo  3/5/14

Status: Y  N  U

Area Walk-By Checklist (AWC) AWC- 048

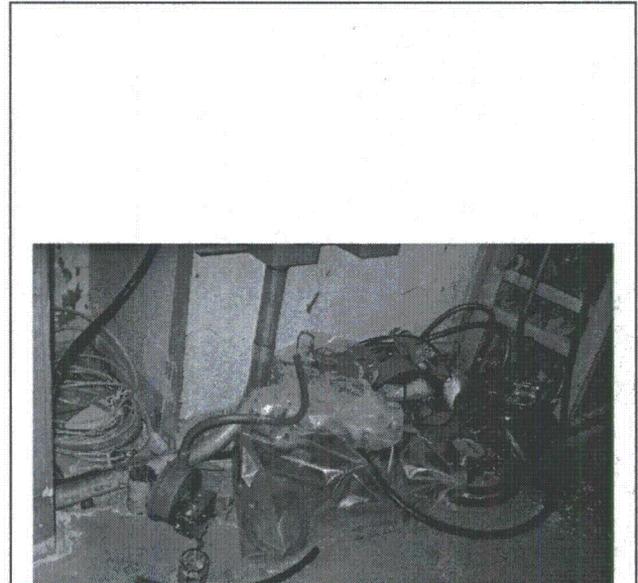
Location: Bldg. VC Floor El. 68'-0 Room, Area<sup>1</sup> \_\_\_\_\_

SWEL Components: SWEL1-082

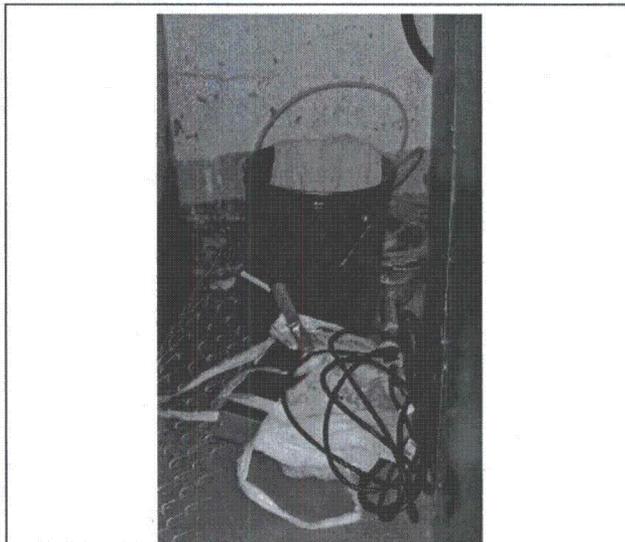
Photographs



**Note:** pipe with missing insulation



**Note:** gages on floor



**Note:** bucket and tools on floor



**Note:** no photo

LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
N/A	SWEL1-007 (MCC-26AA)	During the walkdown of MCC 26AA, one handle is missing on a cubicle, one handle cannot be turned, and unable to turn a few latches to open a few other cubicles. The cubicles that cannot be opened are mainly the spare ones. One the vertical wire trough, a red color plastic cover for the opening is not engaged fully. At the bottom compartment, tie wraps and broken red plastic covers are found in various places.	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104. I concur with the engineering evaluation made at the time of the inspection that there is no seismic or operability concerns with the conditions found. MCC-26AA and the safety related valves and equipment fed from the MCC are operable. There is no IP-SMM-LI-108 immediate reportability associated with this condition.</p> <p><b>CR Action:</b> WR# 333187 generated.</p>	CR-IP2-2014-01465 Closed
N/A	SWEL1-010 (MCC-27A)	Most of the compartment doors' cam-locks were found to be jammed. None of the spare compartment doors on the east side of the MCC could be opened. Fewer spare compartment doors' cam-locks were jammed on the west side.	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104. The compartment door cam-locks that were found to be jammed do not affect the operation or the operability of MCC-27A. MCC-27A is operable. There is no IP-SMM-LI-108 immediate reportability associated with this condition.</p> <p><b>CR Action:</b> WR# 00333883</p>	CR-IP2-2014-01835 Closed
N/A	SWEL1-011 (MCC-29)	During the walkdown of MCC29, an abandoned conduit bushing hanging from a ground wire with a screw is found the compartment above MCC292BL. This is a house keeping issue. (See photo attached) The ground wire is attached and there are no other components within the vicinity of the bushing.	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> There is no degraded or nonconforming condition in accordance with EN-OP-104 Rev 7. The un-used conduit and bushing do not challenge the ability of MCC 29 to perform its function of providing power to its associated loads. The MCC 29 is functional. There is no immediate reportability iaw IP-SMM-LI-108.</p> <p><b>CR Action:</b> The bushing should be removed when other works are to be performed on this MCC in the future. WR# 333130</p>	CR-IP2-2014-01426 Closed
N/A	SWEL1-012 (MCC-26C)	<p>During the walkdown of MCC-26C, the following issues were identified:</p> <ul style="list-style-type: none"> <li>• The panel covers of the two middle bottom compartments were jammed and couldn't be open to inspect the anchors. The cam-lock may be defective.</li> <li>• Missing cam-lock on spare compartment MCC26C-4H. This is a housekeeping matter that has no adverse affect on the safety functions of the equipment. The remaining cam-lock can provide adequate strength to keep the door closed.</li> </ul>	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104. The cover plate that couldn't be opened and the missing cam-lock do not affect the operability of MCC-26C. No immediate reportability required per IP-SMM-LI-108.</p> <p><b>CR Action:</b> WR# 333438</p>	CR-IP2-2014-01604 Closed

LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
N/A	SWEL1-052 (0021CRF)	During the walkdown of 21CRF and 22CRF, surface corrosion were found in the following area: • At all of the motor vibration isolator supports. • The inside surface of the cooling coil discharge door. • Cooling coil intake panels, and the structural attachments on the floor and adjacent to the door.	Condition entered directly into CAP	Initial Action: CR Generated – see status column  CR Operability Review: There is no degraded or non-conforming condition iaw EN-OP-104 Rev 7. The condition described is cosmetic in nature and does not challenge the operability of the 21 and 22 FCU's. 21 and 22 FCU are operable. There is no immediate reportability requirement in accordance with IP-SMM-LI-108.  CR Action: Clean, prep and recoats surfaces to arrest further corrosion and degradation. WR# 333078 was initiated for the work.	CR-IP2-2014-01405 Closed
N/A	SWEL1-053 (0022CRF)	During the walkdown of 21CRF and 22CRF, surface corrosion were found in the following area: • At all of the motor vibration isolator supports. • The inside surface of the cooling coil discharge door. • Cooling coil intake panels, and the structural attachments on the floor and adjacent to the door.	Condition entered directly into CAP	Initial Action: CR Generated – see status column  CR Operability Review: There is no degraded or non-conforming condition iaw EN-OP-104 Rev 7. The condition described is cosmetic in nature and does not challenge the operability of the 21 and 22 FCU's. 21 and 22 FCU are operable. There is no immediate reportability requirement in accordance with IP-SMM-LI-108.  CR Action: Clean, prep and recoats surfaces to arrest further corrosion and degradation. WR# 333078 was initiated for the work.	CR-IP2-2014-01405 Closed
N/A	SWEL1-053 (0022CRF)	During PEO inspection under WO 323344, the 22 FCU chamber between the demister and fan inlet showed signs of rust and corrosion on the walls, supports and fan motor. Rust and corrosion observed is surface only and poses no threat to structural integrity of 22 FCU fan housing or frame. There are no operability or functionality concerns at this time.	Condition entered directly into CAP	Initial Action: CR Generated – see status column  CR Operability Review: Concur with engineer evaluation that the surface rust in chamber between the demister and fan inlet and fan motor supports poses no threat to structural integrity of 22 FCU fan housing. It will not affect the operation of 22 FCU or challenge its ability to remove heat from containment during normal operation and post accident conditions. 22 FCU remains operable. There is no IP-SMM-LI-108 immediate reportability associated with this condition.  CR Action: Clean, prep and repaint surfaces inside 22 FCU to prevent further corrosion and degradation. Initiated WR# 332661 and informed Engineering Supervision	CR-IP2-2014-01153 Closed

LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
N/A	SWEL1-053 (0022CRF)	During PEO inspection under WO 323329, the 22 FCU discharge air expansion joint was discovered to have two tears. These tears were approximately 2 inch by 1 inch. This expansion joint is located on top of 22 FCU directly downstream of FCV-22. Based on the relatively small size of the holes, this should not affect the operation of 22 FCU or challenge its ability to remove heat from containment during normal operation and post accident condition.	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> Concur with engineer evaluation that the relatively small size of the holes will not affect the operation of 22 FCU or challenge its ability to remove heat from containment during normal operation and post accident conditions. 22 FCU remains operable. There is no IP-SMM-LI-108 immediate reportability associated with this condition.</p> <p><b>CR Action:</b> Replace 22 FCU discharge air expansion joint. Initiated WR# 332660 and informed Engineering Supervision.</p>	CR-IP2-2014-01154 Closed
N/A	SWEL1-054 (0023CRF)	The 23 FCU (23CRFCC) Service Water 3" supply and return piping spools between the 10" headers and cooling coils are carbon steel and are in poor material condition externally, based on visual inspection after insulation removal. All have significant surface rusting and loose & flaking exterior coatings. Ref. IP2 Dwg. # 208105. This is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions. See CR-IP2-2014-01478 for similar conditions found in 2R21 at the 21 FCU, and see CR-IP2-2014-01596 for the 25 FCU.	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104. Based on the evaluation made by engineering, this is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions; therefore. This condition does not make #23 FCU inoperable. No immediate reportability required per IP-SMM-LI-108.</p> <p><b>CR Action:</b> Although the piping is normally insulated, the exteriors should be prepped and recoated to mitigate further rusting and generation of debris in the VC. This can be done at a later date, and does not need to be performed in 2R21. WR# 00333617 was initiated for the work.</p>	CR-IP2-2014-01653 Closed
LB-17	SWEL1-055 (0024CRF)	<p>During the walkdown of 23 and 24 CRF, the following was observed:</p> <ul style="list-style-type: none"> <li>• In the 24CRF HEPA outlet compartment, the anchor bolts connecting the panel to the crane wall has only 13 bolts out of 20 holes. 7 bolts are broken inside the hole. By comparison with 23CRF, the total number of anchor bolts should be 16. This 3 bolts deficiency was evaluated and the current condition is structurally adequate and meets the design criteria. WR is generated to restore to original design condition.</li> <li>• The wire screen in front of the fan is missing one of the three screws. The weight of the screen is estimated to be less than 10 pounds. The remaining two screws are sufficient to hold the screen in place during a seismic event.</li> </ul>	<p>Considering the remaining 13 bolts, the bolts are evaluated for differential pressure and Design Basis Earthquake. Bolt shear interaction is 0.34 which is less than 1. Therefore, the condition meets the design basis.</p> <p>Condition entered directly into CAP</p>	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No Degraded or Nonconforming Condition exists per EN-OP-104. As described by the CR originator, civil engineering evaluated the missing bolts for 24 FCU and determined that there are sufficient fasteners remaining to provide structural integrity of the panel and wire screen on 24 FCU even during a seismic event. Therefore, 24 FCU remains operable. No immediate reportability required per IP-SMM-LI-108.</p> <p><b>CR Action:</b> WR# 00333563</p>	CR-IP2-2014-01662 Closed

LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
N/A	SWEL1-063 (IBUS21)	<p>During the walkdown of 118 VAC Instrument Bus 21, the following items are observed:</p> <ul style="list-style-type: none"> <li>Observed red screen door inside the supervisory panel that was not fully secured. During a seismic event, the door may move and strike the sensitive equipment inside the panel. It was indicated that the door will be placed back into its original location and secured once the work on a specific component is done. A minimum of two bolts should be used to restrain the door.</li> <li>Observed a portable light fixture with cord resting on the floor inside the supervisory panel. During a seismic event, the light fixture may move and strike nearby sensitive equipment.</li> <li>Observed a broken and bent plastic wireway inside SL compartment of the supervisory panel. This is a housekeeping matter that has no adverse affect on the safety function of the equipment.</li> </ul>	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> The issues identified by the author have been addressed and no longer pose a challenge. The affected components required to support entry into Mode 6 are operable. There is no immediate reportability iaw IP-SMM-LI-108.</p> <p><b>CR Action:</b> WR# 00333558</p>	CR-IP2-2014-01660 Closed
N/A	SWEL1-076 (0021EDG)	<p>During the seismic walkdown of 21EDG Control Panel, a screw connecting the upper panel to the cabinet's frame is missing a nut. The missing nut was observed with the door opened and looking up at the top of cabinet.</p>	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104 Revision 6 Attachment 9.1 Table 1. The identified condition is that one of several Cabinet nuts is missing, which does not adversely affect the operation of a safety related SSC. In accordance with the input from Civil Engineering, there is no seismic operability concern for this screw that is connecting the upper cover panel to the control cabinet because there is no vertical uplift for this EDG building elevation during a seismic event. The screw can still resist the horizontal seismic force. The existing condition is structurally acceptable and therefore does not impact the operability of the EDGs. SMM-LI-108 reporting is not required.</p> <p><b>CR Action:</b> WR# 00323933</p>	CR-IP2-2013-04549 Closed
N/A	SWEL1-077 (0022EDG)	<p>During the walkdown and inspection of the cabinets attached to the 22EDG, one out of three screws was found missing on the Diesel Air Pressure Gauge mounting (located on the lower right side of the gauge board cover) when the cover was opened. There is no past or present operability issue because the other two remaining screws appear to be tight and have sufficient structural capacity to restraint the PI during a design basis event. Furthermore, the EDG22 is in AOT.</p>	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No Degraded or Nonconforming Condition exists per EN-OP-104 rev 6 Attachment 9.1 Table 1. As stated in the condition description, the missing screw for the cover on 22 EDG air pressure gauge does not represent a seismic challenge to the mounting or structure of the gauge or gauge panel. The remaining two screws are capable of supporting the required loads even during a seismic event. Additionally, the described screw has been replaced and the panel is now held in place by three screws. Therefore, this condition does not impact the operability of 22 EDG. 22 EDG remains in an AOT for other maintenance work. Reference LCO tracking 2-TS-13-2051. No immediate reportability required per IP-SMM-LI-108.</p>	CR-IP2-2013-02336 Closed

LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
				<p>CR Action: Get a new screw and fix it now while the EDG is in AOT to maintain the 3 screws mounting configuration. WR# 310832 was initiated for the work.</p>	
N/A	SWEL 1-078 (0023EDG)	<p>During an engineering walkdown of 23 EDG, an indicating light socket in 23 EDG Auxiliary panel was found unmounted and free floating in its respective panel hole. The indicating light is labeled "Power Available 23 Lube Oil Heater" and is in the right most position. The socket appears broken and may need replacement. See attached picture.</p>	Condition entered directly into CAP	<p>Initial Action: CR Generated – see status column</p> <p>CR Operability Review: No degraded or nonconforming condition exists per EN-OP-104 Revision 6 Attachment 9.1 Table 1. The loose light socket does not challenge the function of 23 EDG Lube Oil Heater nor the operability of 23 EDG. 23 EDG is currently out of service for planned maintenance. This is not immediately reportable per IP-SMM-LI-108.</p> <p>No degraded or nonconforming condition exists per EN-OP-104 rev 6. The light for 23 Lube Oil Heater is for indication only and does not perform any control functions. The "floating" light is secured to the back of the panel using a plastic bracket approximately 6" from the socket. During a seismic event the light would be free to move within the socket, but would not come free from the panel, would not impact any equipment which performs a safety-related function and is too light to break free from its bracket. 23 EDG is operable. This is not immediately reportable per IP-SMM-LI-108.</p> <p>CR Action: WR# 00321339 was initiated for the work.</p>	CR-IP2-2013-04158 Closed
LB-16	SWEL 1-082 (INST RK 19)	<p>During walkdown of Instrument Rack 19, the anchorage configuration does not match the information shown on drawing 9321-F-7051. The SQUG SEWS for Rack 19 referred to calculation 42100-C-002 that evaluated the as built condition of Rack 19, consequently the as built condition was analyzed and there is no operability issue.</p>	<p>Calculation 42100-C-002 does not consider a reduction factor for cracked concrete. A reduction factor of 0.75 was used to compute a new interaction ratio. The interaction ratio (with the reduction factor) is 0.637. This is still less than 1 and the bolts are acceptable.</p>	<p>Initial Action: CR Generated – see status column</p> <p>CR Operability Review: No degraded or nonconforming condition exists per EN-OP-104. The current anchorage of Instrument Rack 19 was evaluated and there were no operability issues. The drawings need to be updated to match the current plant condition of Rack 19. This condition does not make Rack 19 or the safety related instruments housed in the rack inoperable. No immediate reportability required per IP-SMM-LI-108.</p> <p>CR Action: Drawing 9321-F-7051 needs to be updated to show the actual configuration in the plant. CA# 2 was initiated for drawing update.</p>	CR-IP2-2014-01607
N/A	AWC-037	<p>During the walkdown of 118 VAC Instrument Bus 21, the following items are observed:</p> <ul style="list-style-type: none"> <li>Observed a cart with equipment and cables near OPS Analog Channel No. 1 panel. The cart has four wheels that are not locked nor have wheel lock mechanism. During a seismic event, the cart may dislodge and strike nearby panels such as supervisory panel.</li> </ul>	Condition entered directly into CAP	<p>Initial Action: CR Generated – see status column</p> <p>CR Operability Review: The issues identified by the author have been addressed and no longer pose a challenge. The affected components required to support entry into Mode 6 are operable. There is no immediate reportability iaw IP-SMM-LI-108.</p> <p>CR Action: WR# 00333558</p>	CR-IP2-2014-01660 Closed

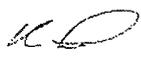
LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
N/A	AWC-042	The 21 FCU Service Water 3" supply and return piping spools between the 10" headers and cooling coils are carbon steel and are in poor material condition externally. All have significant surface rusting and loose & flaking exterior coatings. See attached photos. Ref. IP2 Dwg. # 208105. This is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions.	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104. I concur with engineering that this is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions. Therefore #21 FCU is operable. There is no IP-SMM-LI-108 immediate reportability associated with this condition.</p> <p><b>CR Action:</b> Although the piping is normally insulated, the exteriors should be prepped and recoated to mitigate further rusting and generation of debris in the VC.</p>	CR-IP2-2014-01478 Closed
LB-15	AWC-042	During the Fukushima Seismic walkdowns of the areas nearby FCU 21 and FCU 22, in the VC, Elev. 68', it was observed that a unistrut support part of a frame located between steel Column 12 and 13 has a weld that appears to have been broken. Refer to the attached pictures of the area. As part of our immediate assessment in the field, we observed that the balance of the unistrut frame members are properly supported and considering the 12 ft. or less spans, the components supported on the unistrut frame, consisting mostly of some pipes and tubing, may be considered to have adequate support. While we tend to label this deficiency as not seismically significant, the condition needs to be assessed and the deficient weld should be repaired as soon as possible to preclude further degradation and restoration to the original design condition.	The maximum computed stress is 19,879 psi which is 10% above the allowable stress for OBE loading. This is acceptable since the unistrut with the broken weld was conservatively assumed to be ineffective in carrying any loads while there is another horizontal unistrut connecting it to the adjacent unistrut and a multimode factor of 1.5 was used along with the peak response accelerations with 0.5% damping. The 0.5% damping is considered very low for piping and lower damping value lead to higher the response spectral accelerations.	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> Engineering has evaluated the condition as follows:                      The unistrut frame structure has one weld broken. As stated in the condition report that the balance of the unistrut frame members are properly supported and component supported from the structure have adequate support as assessed in the field. It is also stated in the condition report description that the support structure is seismically sufficient and will not be labeled as a deficiency. This unistrut structure is supported against the containment outer wall and supporting only small bore tubing and piping for the Weld Channel Pressurization System. Based on this, the support structure is considered to be performing its design function.</p> <p>Therefore, No degraded or nonconforming condition exists per EN-OP-104 Revision 7 Attachment 9.1 Table 1. SMM-LI-108 reporting is not required.</p> <p><b>CR Action:</b> The unistrut weld was repaired.</p>	CR-IP2-2014-01250 Closed
N/A	AWC-044	Safety Concern U# 2: 68' VC opposite the # 23 FCU motor area, a section of SS liner sheet metal was found to be peeling away from the wall; we taped the issue back in-place. A possible cut hazard.		<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> N/A</p> <p><b>CR Action:</b> The taping of this sheet will be easily identifiable.</p>	CR-IP2-2014-01128 Closed
N/A	AWC-044	Metal liner on 68' between columns 6 and 7 has a corner pulling away from the wall.	Condition entered directly into CAP See resolution column	<p><b>Initial Action:</b> CR Generated – see status column</p>	CR-IP2-2014-01023 Closed

LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
				<p><b>CR Operability Review:</b> No Degraded or Nonconforming Condition exists per EN-OP-104. Based on the below input from civil engineering, the identified conditions do not impact the structural integrity of the steel liner or the containment building. Therefore the vapor containment system remains operable. No immediate reportability required per IP-SMM-LI-108.</p> <p>During tours of the VC at the start of 2R21, Operations identified an additional area of liner insulation that is degraded on the 68' elevation of the VC behind column 7. This area has been added to WO 308669.</p> <p>This condition is not an immediate operability issue as the insulation is not structural and their sole design basis function is to protect the liner from hot liquid due to possible high energy line breaks and provide a vapor barrier against possible flooding of the 46' elevation. The identified insulation degradation is minor and represents a very small percentage of the insulation coverage, and, as a result, the identified degradation will not adversely affect the design function of the steel liner.</p> <p><b>CR Action:</b> Fix liner. Reference WO# 308669</p>	
N/A	AWC-045	<p>The 24 FCU (24CRFCC) Service Water 3" supply and return piping spools between the 10" headers and cooling coils are carbon steel and are in poor material condition externally, based on visual inspection after insulation removal. All have significant surface rusting and loose &amp; flaking exterior coatings. Ref. IP2 Dwg. # 208105. This is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions.</p> <p>Similar conditions have been found in 2R21 at the 21 FCU (CR-IP2-2014-01478), 23 FCU (CR-IP2-2014-01653), and 25 FCU (CR-IP2-2014-01596).</p>	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104. Based on the evaluation made by engineering, this is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions; therefore, this condition does not make #24 FCU inoperable. No immediate reportability required per IP-SMM-LI-108.</p> <p><b>CR Action:</b> Although the piping is normally insulated, the exteriors should be prepped and recoated to mitigate further rusting and generation of debris in the VC. This can be done at a later date, and does not need to be performed in 2R21. VWR# 00333616 was initiated for the work.</p>	CR-IP2-2014-01654 Closed
N/A	AWC-046	<p>The 25 FCU Service Water 3" supply and return piping spools between the 10" headers and cooling coils are carbon steel and are in poor material condition externally. All have significant surface rusting and loose &amp; flaking exterior coatings. Ref. IP2 Dwg. # 208105. This is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions. See CR-IP2-2014-01478 for similar conditions found at the 21 FCU in 2R21.</p>	Condition entered directly into CAP	<p><b>Initial Action:</b> CR Generated – see status column</p> <p><b>CR Operability Review:</b> No degraded or nonconforming condition exists per EN-OP-104. I concur with the evaluation made by engineering that this is a surface condition issue only and does not impact component or system pressure boundary, structural integrity, or design functions. This condition does not make #25 FCU inoperable. No immediate reportability required per IP-SMM-LI-108.</p>	CR-IP2-2014-01596 Closed

LB #	SWC/AWC #	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	CR# /STATUS
				CR Action: Although the piping is normally insulated, the exteriors should be prepped and recoated to mitigate further rusting and generation of debris in the VC. This can be done at a later date, and does not need to be performed in 2R21. WR# 00333554 was initiated for the work.	

\*The actual number of bolt holes is 28.

Prepared by: Maggie Staub  Date: 3/14/14

Reviewed by: Kai Lo  Date: 3/14/14

**Licensing Basis (LB) Evaluation Form**LB Evaluation No. 15 Originating SWC/AWC AWC-42Equipment ID No. SWEL1-052 Equip. Class 10Equipment Description Containment Recir Fan 21Location: Bldg. Vc Floor El. 68' Room, Area **Condition**

A vertical Unistrut channel support for a 3/8" Weld Channel tubing has a cracked weld. Although the Unistrut top weld is intact, inferring the Unistrut will provide vertical and lateral resistance, conservatively, the support shall be considered totally ineffective. As a result, the support span is changed from 6' to 11'-10" in this evaluation. There are many tubings and pipes on this Strut, but the 3/8" tubing is the most critical by comparison because of its small diameter and wall thickness.

**Documents Reviewed**

Specification 9321-01-248-18

Drawing 9321-F-70.33

**Licensing Basis**

1. ALTRAN Report 92128-TR-01
2. UFSAR
3. 1955 & 1973 B31.1 Power Piping Code

**Evaluation**

Sh = allowable stress of CS tubing =	15000	psi
E = modulus of elasticity =	2.79E+07	psi
g = gravitational constant =	386.4	
P = design pressure =	150	psi
Gh = peak 0.5% seismic acceleration at VC EL. 68' =	1.82	
Gv =	1.213	
mm = multi-modal response multiplier =	1.5	
t = wall thickness =	0.035	in
D = outside diameter =	0.375	in
d = inside diameter = D-2t =	0.305	in

ATTACHMENT M - DEFERRED WALKDOWNS LICENSING BASIS EVALUATION FORMS

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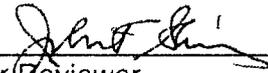
$$\begin{aligned}
 L &= \text{tubing span} = 142 \text{ in} \\
 0.75i &= 1.0 \\
 I &= \text{moment of inertia} = 0.0491(D^4 - d^4) = 0.000546 \text{ in}^4 \\
 Z &= \text{section modulus} = I/(0.5D) = 0.002912 \text{ in}^3 \\
 w &= \text{uniform weight of tubing (N}_2 \text{ inside)} = 0.1271 \text{ plf} = 0.01059 \text{ \#/in} \text{ cons.} \\
 f_n &= \text{natural frequency for fix-fix beam} = 22.4/(2\pi)[EIg/wL^4] = 4.11 \text{ Hz} \\
 M_a &= \text{bending moment based on fix-fix end} \\
 &\quad \text{condition} = wL^2/12 = 17.80 \text{ in-lb} \\
 &\quad \text{For dead weight loading:} \\
 &\quad \quad M_a/Z = 6111 \text{ psi} \\
 &\quad \quad PD/(4t) = 402 \text{ psi} \\
 &\quad \quad PD/(4t) + 0.75i(M_a/Z) = 6512 \text{ psi} < Sh = 18750 \text{ psi} \\
 &\quad \quad \text{For DBE loading:} \\
 &\quad \quad Gr = mrm(Gh^2 + Gv^2)^{0.5} = 3.28 \\
 &\quad \quad M_b = Gr(M_a) = 58.4 \text{ in-lb} \\
 &\quad \quad PD/(4t) + 0.75i(M_a + M_b)/Z = 26562 \text{ psi} < 1.8Sh = 27000 \text{ psi} \\
 &\quad \quad \text{For OBE loading} \\
 &\quad \quad M_b = 2/3(DBE M_b) = 38.93 \text{ in-lb} \\
 &\quad \quad PD/(4t) + 0.75i(M_a + M_b)/Z = 19879 \text{ psi} > 1.2Sh = 18000 \text{ psi}
 \end{aligned}$$

There is a 10% overstress for the OBE loading case. The 10% exceedance is acceptable as: (1) unistrut with broken weld was conservatively assumed to be ineffective in carrying any loads, while there is another horizontal Unistrut connecting it to the adjacent Unistrut; (2) the multimode factor of 1.5 is conservative, using the peak of both the vertical and horizontal spectra is conservative, and (4) the 0.5% damping ratio is very low for piping.

**Conclusion** (8) Condition Meets the Licensing Basis:  Yes  No

Prepared by: Kai Lo   
 Licensing Basis Reviewer

Date 3-1-2014

Reviewed by: John Stoniewicz /   
 Peer Reviewer

Date 3-1-2014

ATTACHMENT 9.9

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 3

**Licensing Basis (LB) Evaluation Form**LB Evaluation No. 16 Originating SWC/AWC SWEL1-082Equipment ID No. INST RK 19 Equip. Class 18Equipment Description Instrument Rack 19Location: Bldg. VC Floor El. 68' Room, Area \_\_\_\_\_**Condition**

Two anchor bolts has concrete crack 2" and 3" away from the bolt. The calculation for the anchorage does not take into account of the crack reduction factor. The two bolts need to be re-evaluated for the concrete crack.

**Documents Reviewed**

1. SEWS INST RK 19
2. EQE Calculation 42100-C-002 (INST RK 21)

**Licensing Basis**

1. Safety factor = 4 for expansion anchor
2. Hilti Report No. 878.3R
3. Linear interaction for combine tension and shear

**Evaluation**

Based on the conservative values from Calculation 42100-C-002

T = tension at bolt = 313#

S = shear at bolt = 111#

Interaction =  $313/844 + 111/781 = 0.51$

For crack size < 0.02",  $RC_p = 0.75$

Pall =  $844(0.75) = 633\#$

Accounting for crack, revised interaction ratio =  $313/633 + 111/781 = 0.637 < 1.0$ . o.k.

**Conclusion** (8) Condition Meets the Licensing Basis:  Yes  No

Prepared by: Kai Lo   
Licensing Basis Reviewer Date 3/5/2014

Reviewed by: J. Skonieczny   
Peer Reviewer Date 3-6-2014

ATTACHMENT 9.9

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 2

**Licensing Basis (LB) Evaluation Form**LB Evaluation No. 17 Originating SWC/AWC SWEL1-055Equipment ID No. 24CRF Equip. Class 10Equipment Description Containment Recirculation Fan 24Location: Bldg. VC Floor El. 68' Room, Area \_\_\_\_\_**Condition**

There are only 13 bolts in 20 holes. Original design condition is 16 bolts. Evaluate the structural adequacy of the remaining 13 bolts.

**Documents Reviewed**

1. 9321-F-4026
2. ALTRAN Report NO. 92128-TR-01
3. DG-04, Rev. 1, Fig. 39

**Licensing Basis**

Safety related SSC must be structurally designed to perform its function during and after a design basis earthquake.

**Evaluation**

$w$  = width of panel = 9.83 ft, field measured  
 $h$  = height of panel = 15.5 ft, field measured  
 $\Delta p$  = differential pressure betw. the two compartments = 0.4 psi, (cons. For fan pressure)  
 $N$  = number of anchor bolts = 13  
 $S_a$  = shear capacity of Philips "Red Head" wedge anchor = 969 lb for 1.5 emb. (cons.)  
 $d$  = density for steel = 0.283 pci  
 $G_h$  = peak horizontal seismic acceleration = 0.95 for 2% damping  
 $W$  = total weight of panel =  $wh(144)(0.75)d$  = 4658 lb, use 5500

For  $\Delta p$  loading during normal operation

$P$  = force induced by  $\Delta p$  =  $pwh$  = 8779.20 lb  
 $R$  = reaction at the crane wall side =  $P[h/2(w+h)]$  = 2686 lb  
 $S_1$  = shear per bolt =  $R/N$  = 207 lb

For DBE seismic loading

$R$  =  $G_h W[h/2(w+h)]$  = 1598 lb  
 $S_2$  = shear per bolt =  $R/N$  = 123 lb  
 $S$  = total shear from operating  $\Delta p$  and DBE =  $S_1 + S_2$  = 330  
 $S/S_a$  = 0.34 < 1.0, o.k.

ATTACHMENT M - DEFERRED WALKDOWNS LICENSING BASIS EVALUATION FORMS

Engineering Report No. IP-RPT-12-00037

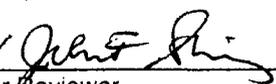
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Sheet 2 of 2

**Conclusion** (8) Condition Meets the Licensing Basis:  Yes  No

Prepared by: Kai Lo  Date 3/7/2014  
Licensing Basis Reviewer

Reviewed by: J. Skonieczny  Date 3-7-2014  
Peer Reviewer