

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-73A

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): SB, 609.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

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

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-73A

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

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

Other Adverse Conditions

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

Comments

SEWS Anchorage Notes:

Panel welded to massive plate assembly. Base plate anchored by six - 1/2" concrete expansion anchors.

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Evaluated by:

David Carter David Carter

Date: 10/4/2012

James D. Griffith James Griffith

10/4/2012

Status: Y N U

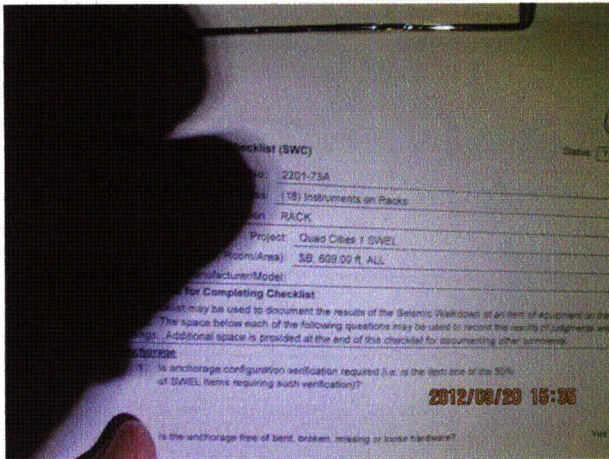
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-73A

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

Photos



8-20-12 Quad Cities 259 (1)



8-20-12 Quad Cities 259 (2)



8-20-12 Quad Cities 259 (3)



8-20-12 Quad Cities 259 (4)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-73A

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK



8-20-12 Quad Cities 259 (5)



8-20-12 Quad Cities 259 (6)



8-20-12 Quad Cities 259 (7)



8-20-12 Quad Cities 259 (8)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-73A

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK



8-20-12 Quad Cities 259 (9)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-8

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, AUTO BLOWDOWN

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): RB, 595.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Minor lack of thread engagement judged to be acceptable.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor wall shrinkage cracks judged to be acceptable.
Gap at east end floor anchor judged to be acceptable due to top braces.

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

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-8

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, AUTO BLOWDOWN

Interaction Effects

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

Phone attached to rack. Receiver in cradle. Rack is rigid and vertical seismic acceleration is minimal, therefore receiver will not jump out of cradle. Phone judged to be acceptable.

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

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

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

Other Adverse Conditions

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

Comments

SEWS Anchorage Notes:

Instrument rack composed of angle iron and anchored by concrete expansion anchors and braced back to a reinforced concrete wall by structural rolled shapes.

Seismic Walkdown Team: D. Carter & J. Griffith - 8/22/2012

See South CRD Bank area walk-by for further notes.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-8

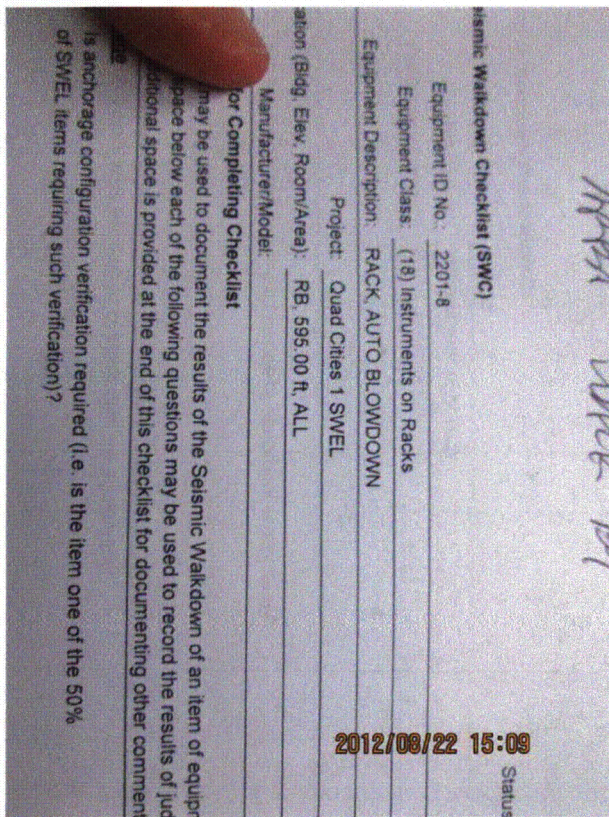
Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, AUTO BLOWDOWN

Evaluated by: *David Carter* David Carter Date: 10/4/2012

James D Griffith James Griffith 10/4/2012

Photos



8-22-12 Quad Cities 201



8-22-12 Quad Cities 202

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2201-8

Equipment Class: (18) Instruments on Racks

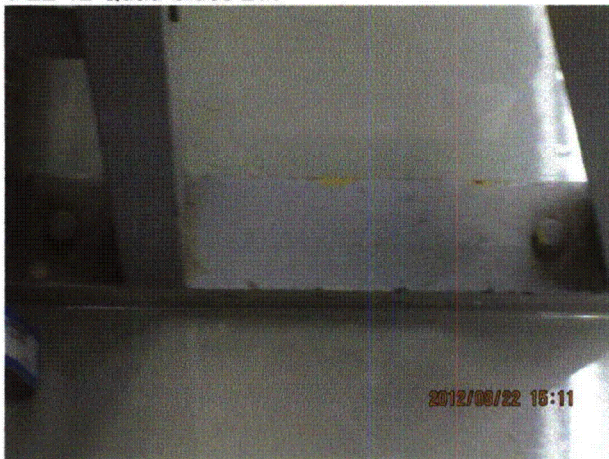
Equipment Description: RACK, AUTO BLOWDOWN



8-22-12 Quad Cities 203



8-22-12 Quad Cities 204



8-22-12 Quad Cities 205



8-22-12 Quad Cities 206

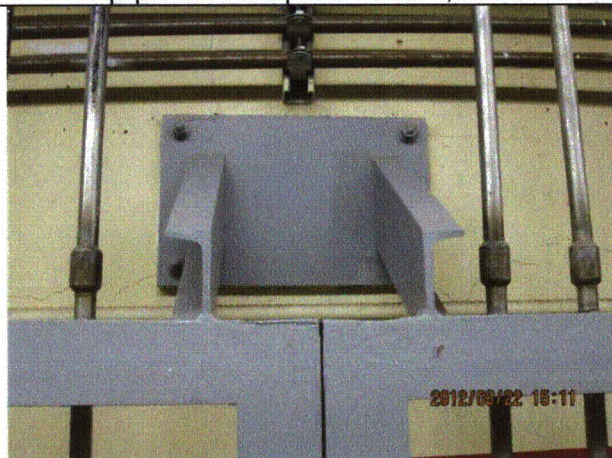
Status: Y N U

Seismic Walkdown Checklist (SWC)

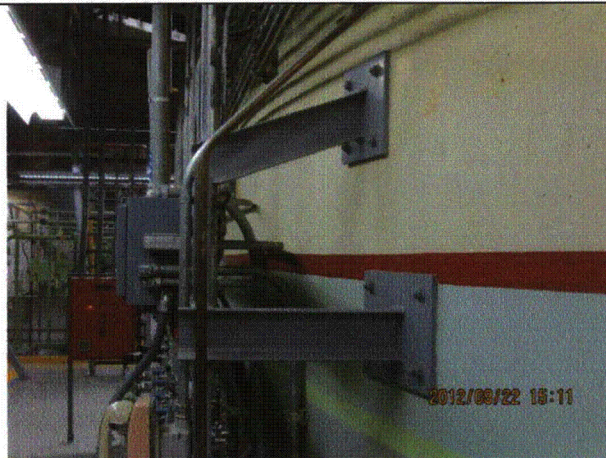
Equipment ID No.: 2201-8

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, AUTO BLOWDOWN



8-22-12 Quad Cities 207



8-22-12 Quad Cities 208



8-22-12 Quad Cities 209



8-22-12 Quad Cities 210

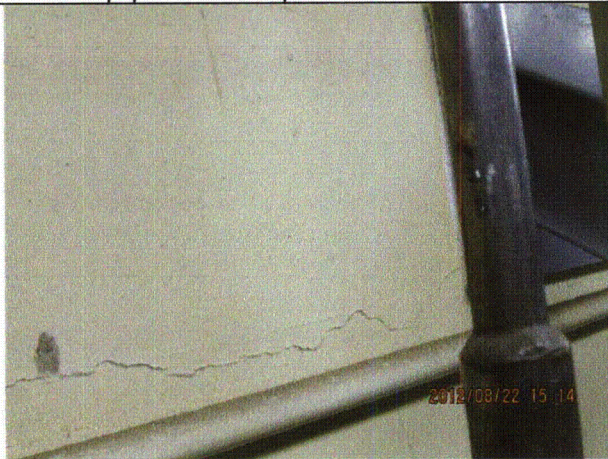
Status: Y N U

Seismic Walkdown Checklist (SWC)

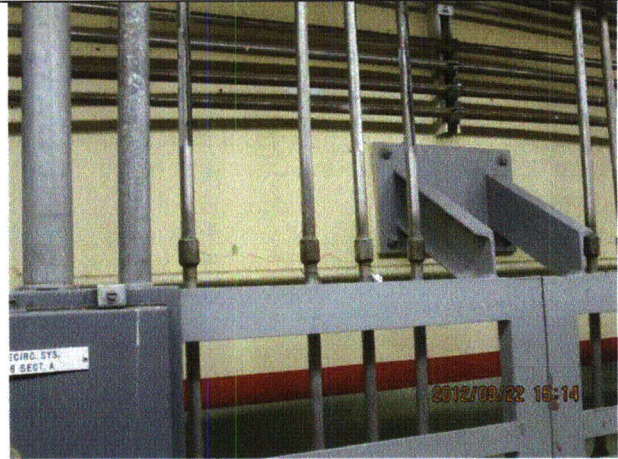
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Equipment Class: (18) Instruments on Racks

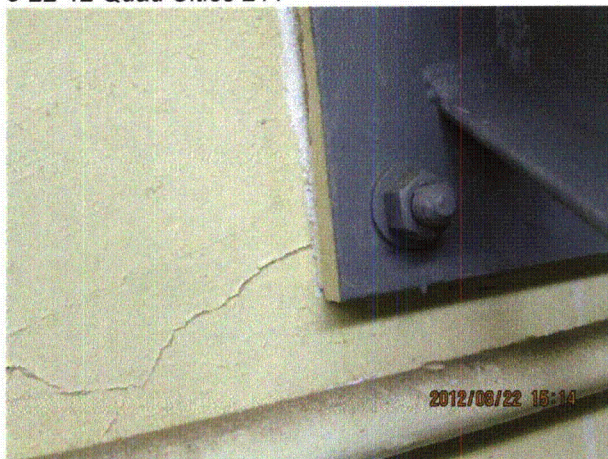
Equipment Description: RACK, AUTO BLOWDOWN



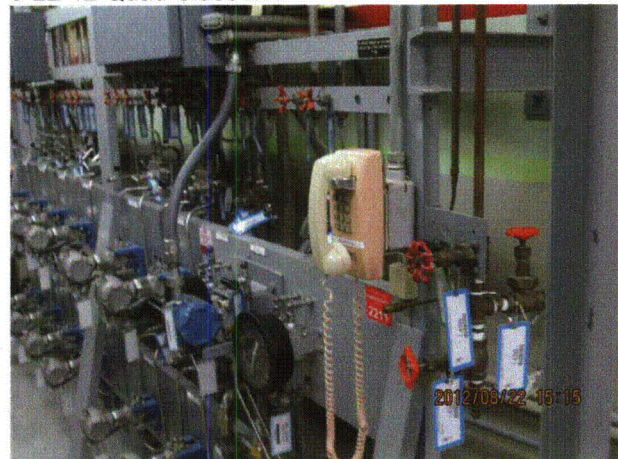
8-22-12 Quad Cities 211



8-22-12 Quad Cities 212



8-22-12 Quad Cities 213



8-22-12 Quad Cities 214

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-10

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, U-1 DG RELAY & METERING

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): DG, 595.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

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

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-10

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, U-1 DG RELAY & METERING

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

Other Adverse Conditions

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

Comments

SEWS Anchorage Notes:

Cabinet welded to edge angle. One fillet weld in each of two corners (on outside) of 3" length and 1/8" size on one side of cabinet to edge angles and 1 seam weld which is entirely discounted. The other corner is anchored by one 1.5"x2" tabs in corner (one side of tab welded to cabinet and the other 3 sides welded to edge angle).

Seismic Walkdown Team: D. Carter & J. Griffith - 8/21/2012

Evaluated by:

David Carter David Carter

Date: 10/4/2012

James D. Griffith James Griffith

10/4/2012

Status: Y N U

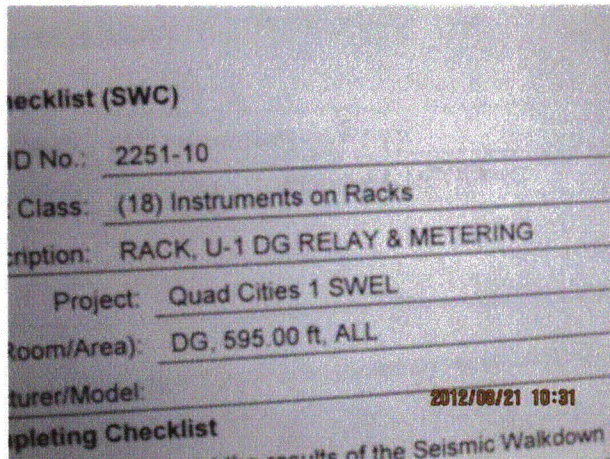
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-10

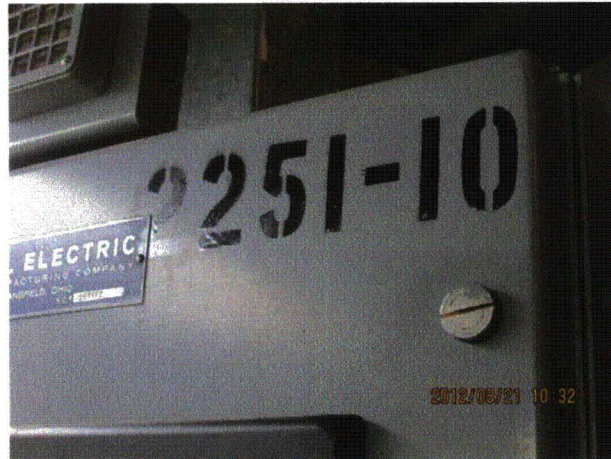
Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, U-1 DG RELAY & METERING

Photos



8-21-12 Quad Cities 121



8-21-12 Quad Cities 122



8-21-12 Quad Cities 123



8-21-12 Quad Cities 124

Status: Y N U

Seismic Walkdown Checklist (SWC)

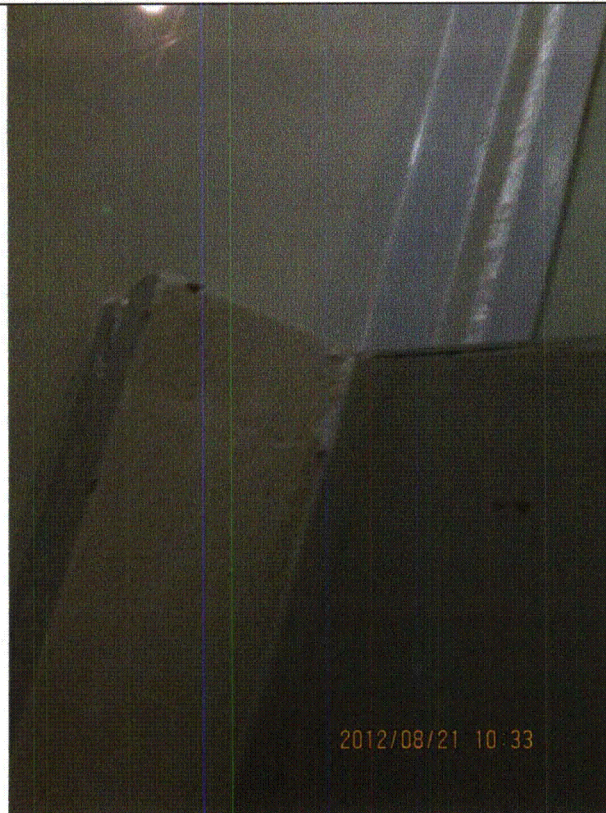
Equipment ID No.: 2251-10

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, U-1 DG RELAY & METERING



8-21-12 Quad Cities 125



8-21-12 Quad Cities 126



8-21-12 Quad Cities 127

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-113

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, DG ENGINE CONTROL

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): DG, 595.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
Bottom supported by brackets welded to DG skid. Top supported by bolted bracket to water expansion tank.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable
Mounted to DG skid.

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-113

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, DG ENGINE CONTROL

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

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
IR 1403068:

One panel bolt missing on left side panel, 3 bolts loose on right side. Right side has locations for 16 bolts; 13 bolts acceptable by engineering judgment. Left side has locations for 11 bolts; 10 bolts acceptable by engineering judgment.

Comments

Seismic Walkdown Team: D. Carter & J. Griffith - 8/21/2012

Evaluated by: David Carter Date: 10/4/2012

James D. Griffith James Griffith 10/4/2012

Status: Y N U

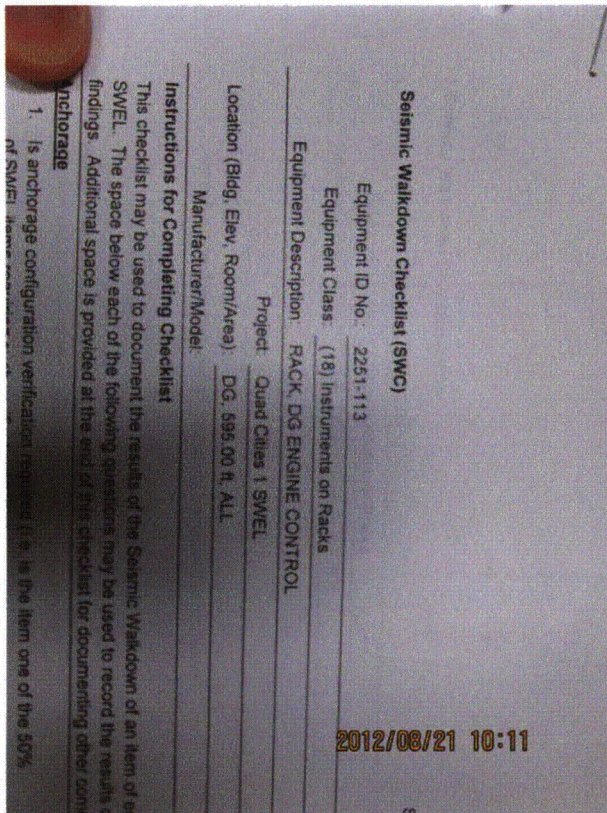
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-113

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, DG ENGINE CONTROL

Photos



8-21-12 Quad Cities 102



8-21-12 Quad Cities 103

Status: Y N U

Seismic Walkdown Checklist (SWC)

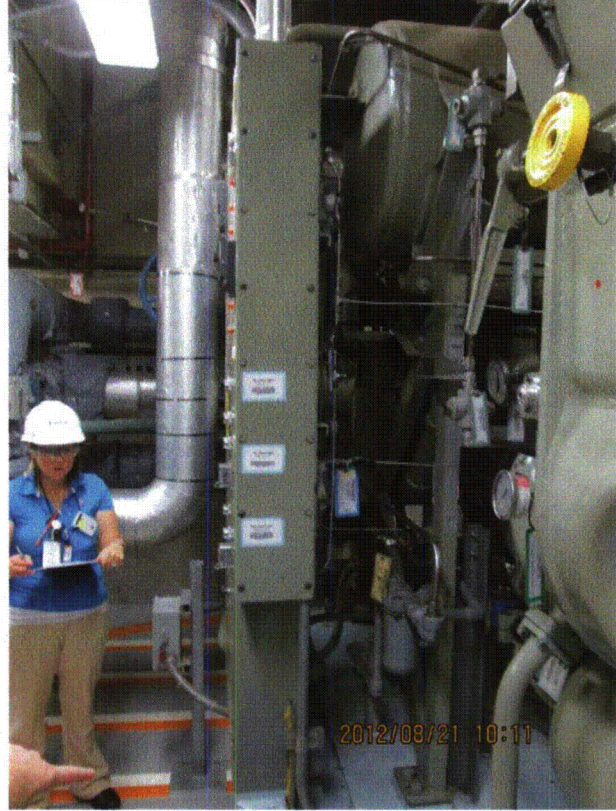
Equipment ID No.: 2251-113

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, DG ENGINE CONTROL



8-21-12 Quad Cities 104



8-21-12 Quad Cities 105

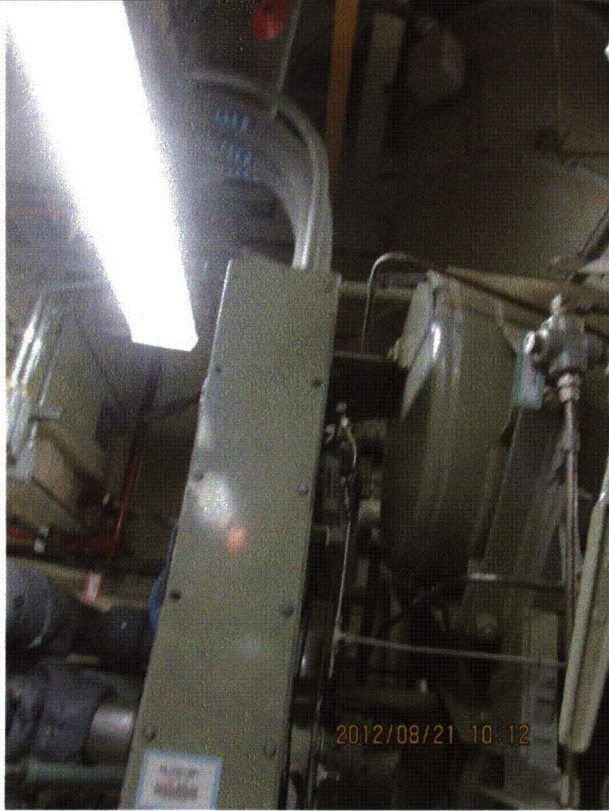
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-113

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, DG ENGINE CONTROL



8-21-12 Quad Cities 106



8-21-12 Quad Cities 107

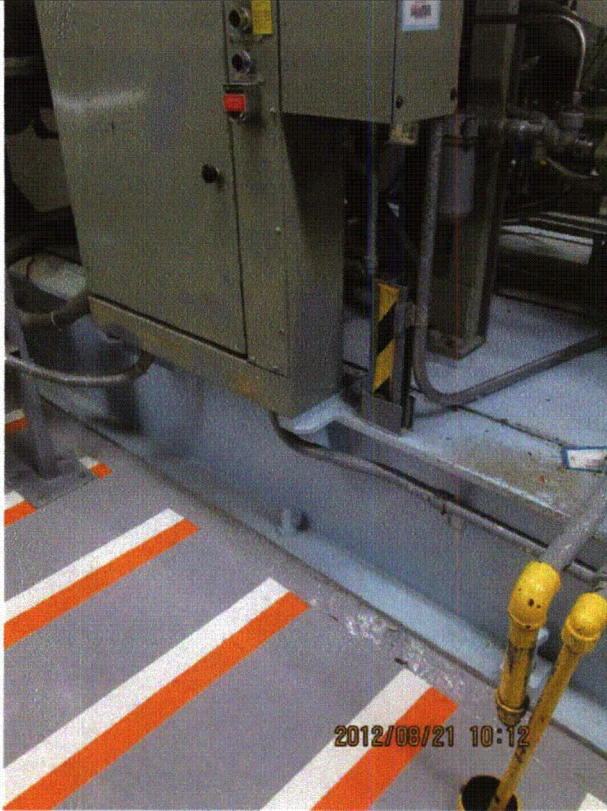
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-113

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, DG ENGINE CONTROL



8-21-12 Quad Cities 108



8-21-12 Quad Cities 109

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-113

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK, DG ENGINE CONTROL



8-21-12 Quad Cities 110

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-86

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): TB, 639.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

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

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-86

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

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

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Insulated pipe approximately 6 inches above floor touches P5500 legs. Judged to be acceptable.

Comments

SEWS Anchorage Notes:

Relay box weighing less than 100 lbs. mounted on P5500 (Unistrut) frame anchored by eight - 3/4" concrete expansion anchors.

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Evaluated by:

David Carter David Carter

Date: 10/12/2012

James D. Griffith James Griffith

10/12/2012

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-86

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

Photos



8-20-12 Quad Cities 205 (10)



8-20-12 Quad Cities 205 (2)

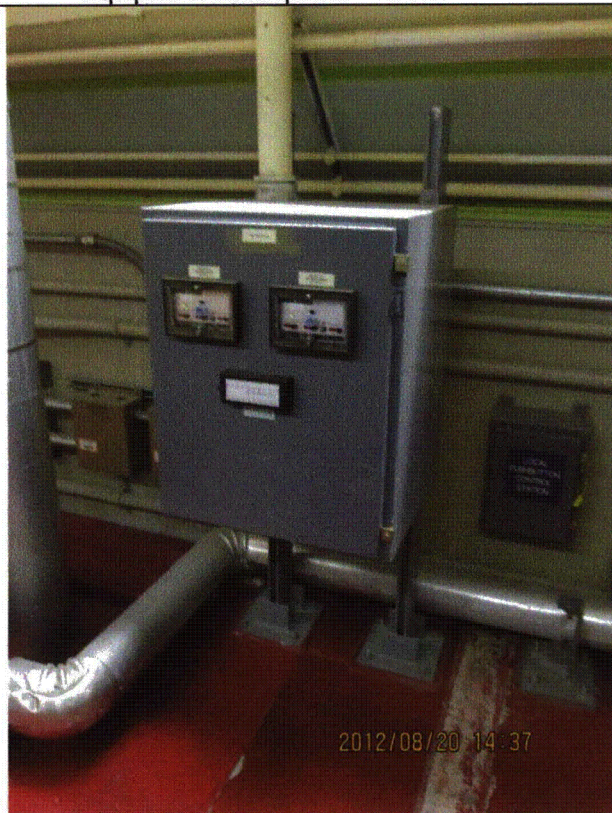
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-86

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK



2012/08/20 14:37

8-20-12 Quad Cities 205 (3)



2012/08/20 14:38

8-20-12 Quad Cities 205 (5)



2012/08/20 14:38

8-20-12 Quad Cities 205 (6)



2012/09/26 14:38

8-20-12 Quad Cities 205 (7)

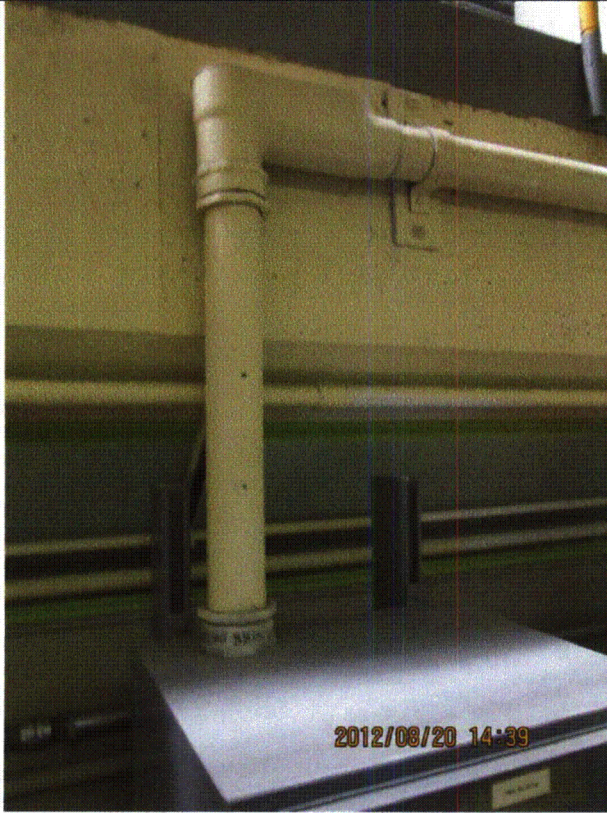
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-86

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK



8-20-12 Quad Cities 205 (8)



8-20-12 Quad Cities 205 (9)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-87

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): TB, 639.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor shrinkage cracking in floor judged to be acceptable.

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-87

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

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

Other Adverse Conditions

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

Comments

SEWS Anchorage Notes:

Relay box weighing less than 100 lbs. mounted on P5500 (Unistrut) frame anchored by eight - 3/4" concrete expansion anchors.

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Evaluated by:

David Carter David Carter

Date: 10/4/2012

James D. Griffith James Griffith

10/4/2012

Status: Y N U

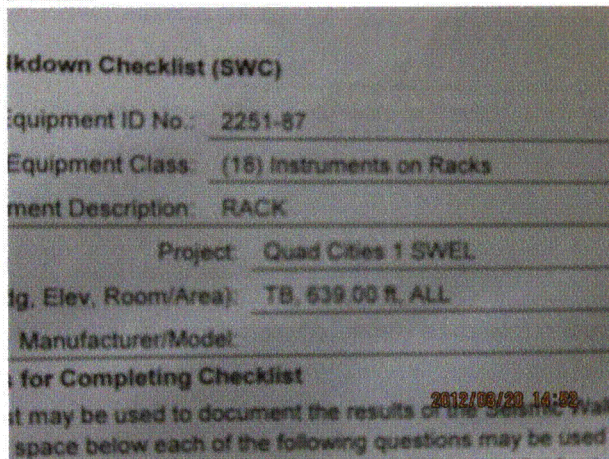
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-87

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

Photos



8-20-12 Quad Cities 224 (1)



8-20-12 Quad Cities 224 (2)



8-20-12 Quad Cities 224 (3)



8-20-12 Quad Cities 224 (4)

Status: Y N U

Seismic Walkdown Checklist (SWC)

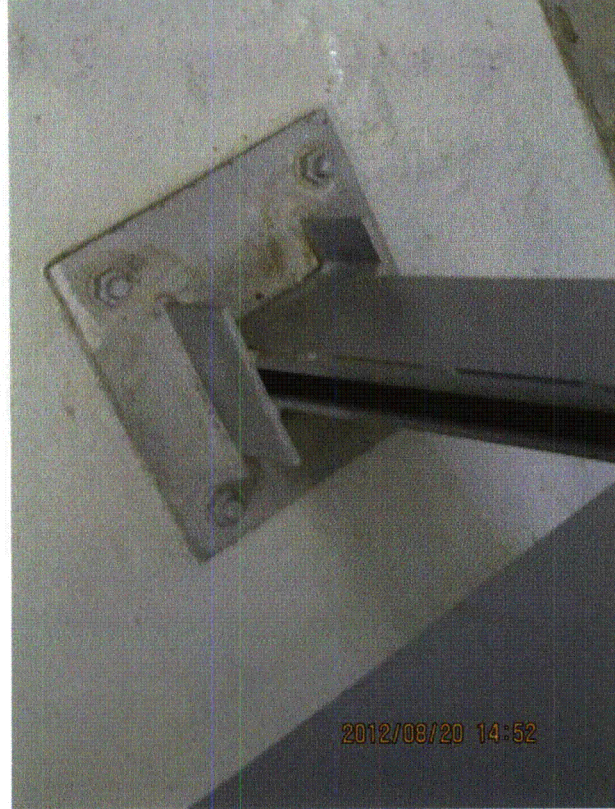
Equipment ID No.: 2251-87

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK



8-20-12 Quad Cities 224 (5)



8-20-12 Quad Cities 224 (6)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2251-87

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK



8-20-12 Quad Cities 224 (7)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC BATT 1

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY, 250V

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): TB, 628.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes
SQUG identified one missing anchor. Thorough examination of anchor determined that all the anchors are in place.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor shrinkage cracking judged to be acceptable.

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

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC BATT 1

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY, 250V

Interaction Effects

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

Softeners in place between batteries and between the batteries and racks in place to mitigate impacts.

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

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

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

Other Adverse Conditions

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

Comments

SEWS Anchorage Notes:

Each leg anchored by a single 3/8" Wedge type expansion anchor through a 3x3x1/4" clip angle that is thru-bolted thru the tube leg. On one of the rack, one bolt was missing from the center leg (sixth one from either end) on the furthest back leg (third from front).

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC BATT 1

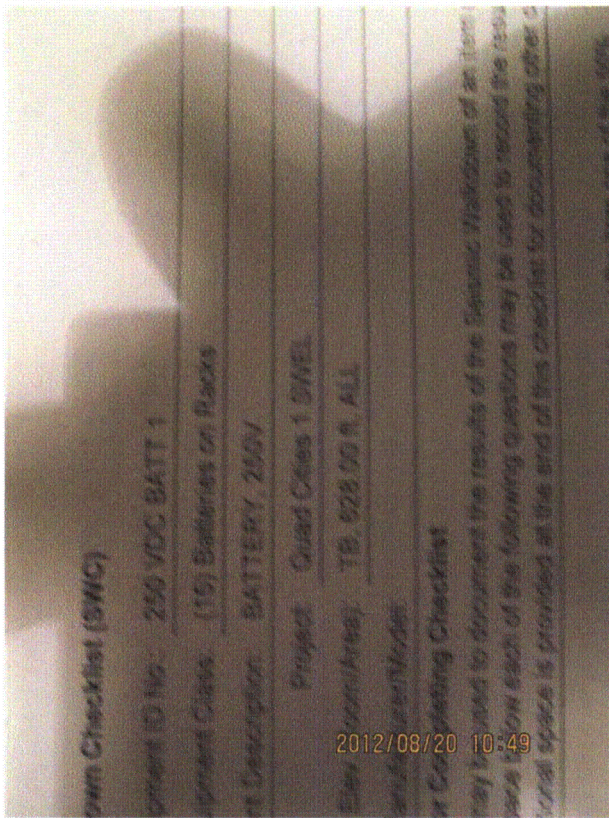
Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY, 250V

Evaluated by: *David Carter* David Carter Date: 10/4/2012

James D Griffith James Griffith 10/4/2012

Photos



8-20-12 Quad Cities 086 (1)



8-20-12 Quad Cities 086 (2)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC BATT 1

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY, 250V



8-20-12 Quad Cities 086 (3)



8-20-12 Quad Cities 086 (4)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC BATT 1

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY, 250V



8-20-12 Quad Cities 086 (5)



8-20-12 Quad Cities 086 (6)

Status: Y N U

Seismic Walkdown Checklist (SWC)

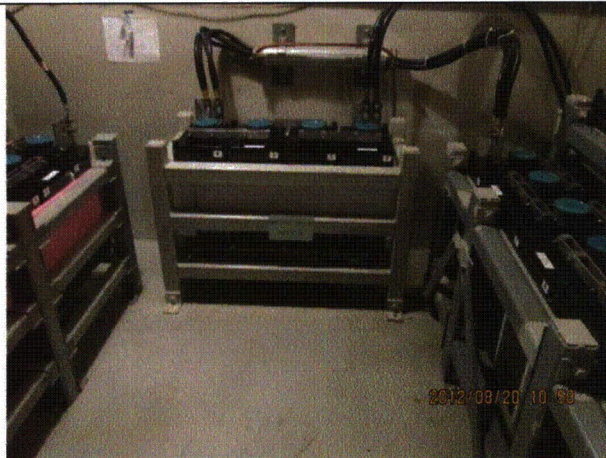
Equipment ID No.: 250VDC BATT 1

Equipment Class: (15) Batteries on Racks

Equipment Description: BATTERY, 250V



8-20-12 Quad Cities 086 (7)



8-20-12 Quad Cities 086 (8)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): TB, 615.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor shrinkage cracks in the floor judged to be acceptable.

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Overhead light fixtures judged to be acceptable.
- Adjacent masonry wall restrained at top indicating that the wall was designed to resist lateral loads. Therefore it is judged to be seismically adequate.*
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

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

Comments

SEWS Anchorage Notes:

Welded to embedded angle with 1" long 1/4" thick fillet weld in corner of each unit.

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Evaluated by: David Carter

Date: 10/4/2012

James D. Griffith
James Griffith

10/4/2012

Status: Y N U

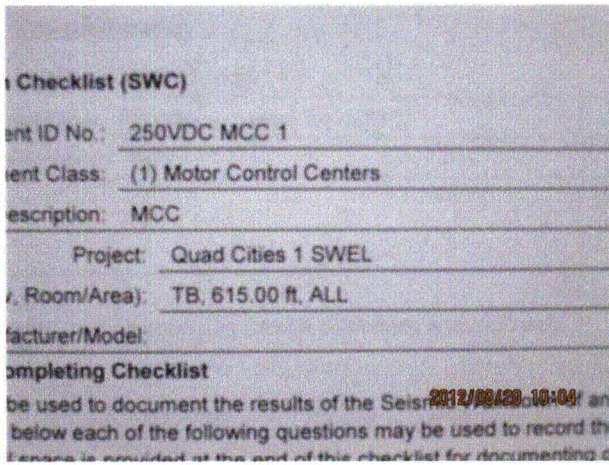
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC

Photos



8-20-12 Quad Cities 045 (1)



8-20-12 Quad Cities 045 (10)



8-20-12 Quad Cities 045 (2)



8-20-12 Quad Cities 045 (3)

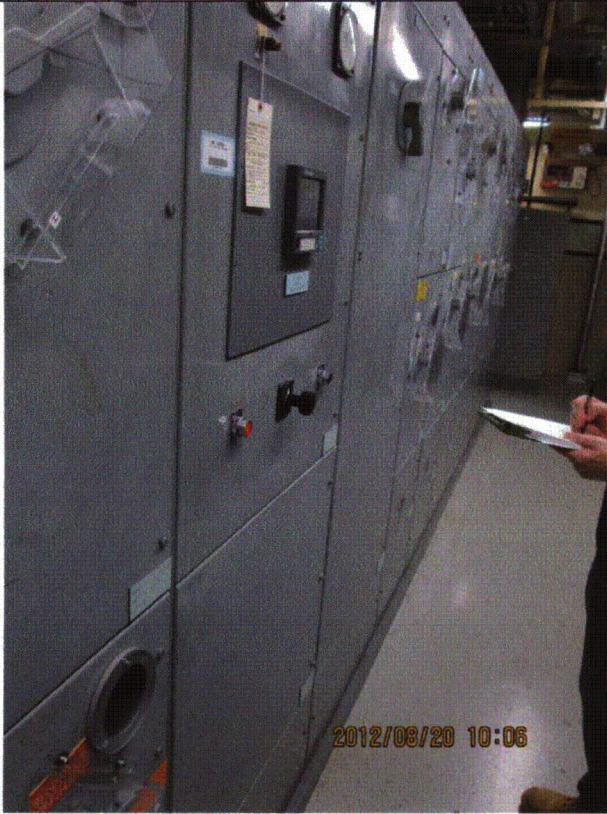
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC



8-20-12 Quad Cities 045 (4)



8-20-12 Quad Cities 045 (5)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC



8-20-12 Quad Cities 045 (6)



8-20-12 Quad Cities 045 (7)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC



8-20-12 Quad Cities 045 (8)



8-20-12 Quad Cities 045 (9)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1A

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): RB, 623.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? No

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

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

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1A

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC

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

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
Two doors on the back of the MCC are slightly sprung. They are adequately latched and judged to be acceptable.

Comments

Seismic Walkdown Team: D. Carter & J. Griffith - 8/22/2012

Evaluated by:

David Carter David Carter

Date: 10/4/2012

James D. Griffith James Griffith

10/4/2012

Status: Y N U

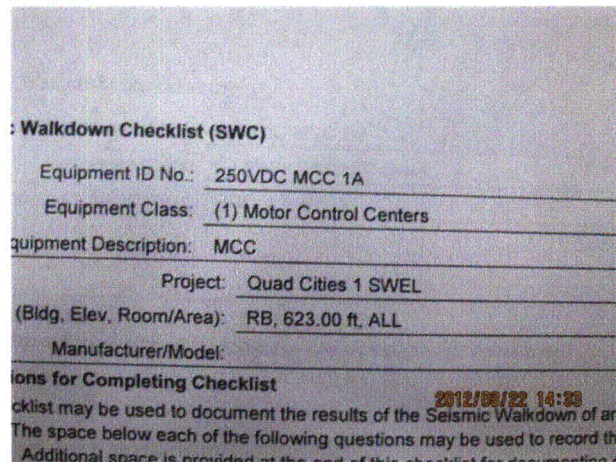
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1A

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC

Photos



8-22-12 Quad Cities 172



8-22-12 Quad Cities 173



8-22-12 Quad Cities 174



8-22-12 Quad Cities 175

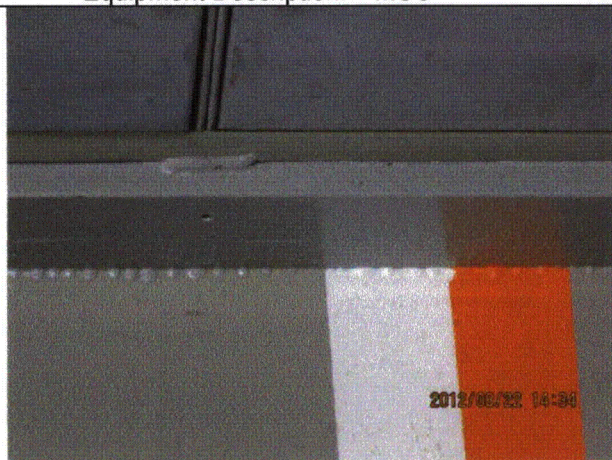
Status: Y N U

Seismic Walkdown Checklist (SWC)

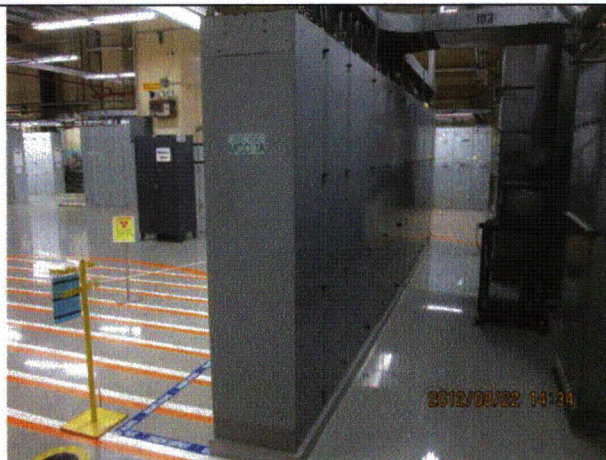
Equipment ID No.: 250VDC MCC 1A

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC



8-22-12 Quad Cities 176



8-22-12 Quad Cities 177



8-22-12 Quad Cities 178



8-22-12 Quad Cities 179

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 250VDC MCC 1A

Equipment Class: (1) Motor Control Centers

Equipment Description: MCC



8-22-12 Quad Cities 180



8-22-12 Quad Cities 181

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-3

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

Equipment Description: PANEL

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): SB, 623.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

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

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

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Yes
Viewed 5 of 9 anchors (all in front). Remaining anchors could not be viewed due to cabling and limitation on access. Anchors viewed matched documentation. Thus it is reasonable to conclude that the anchors match plant documentation without further verification.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-3

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

Equipment Description: PANEL

Interaction Effects

- | | |
|--|-----|
| 7. Are soft targets free from impact by nearby equipment or structures? | Yes |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
<i>Overhead equipment not visible due to drop ceilings outside of cabinet and sheet metal ceiling inside.</i> | Yes |
| 9. Do attached lines have adequate flexibility to avoid damage? | Yes |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Yes |

Other Adverse Conditions

- | | |
|---|-----|
| 11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?
<i>Back of panel was open. No adverse seismic conditions were observed.</i> | Yes |
|---|-----|

Comments

SEWS Anchorage Notes:

Panel 901-3 has 6" of 1/4" fillet welding and 13 plug welds attaching cabinet to base channels and 9 welded or bolted friction clips (5 on front, 2 in center and 2 on back) attaching base channel to embedded steel.

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Per Operations, no photos permitted in control room.

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-3

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

Equipment Description: PANEL

Evaluated by: *David Carter* David Carter

Date: 10/4/2012

James D. Griffith James Griffith

10/4/2012

Photos

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-33

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

Equipment Description: PANEL

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): SB, 595.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor shrinkage cracks judged to be acceptable.

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

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-33

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

Equipment Description: PANEL

Interaction Effects

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

Duct stiffeners modified to provide clearance to cabinet. Top of 901-33 tied to adjacent cabinet (901-47). Therefore, no seismic interaction concerns.

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

Overhead light fixtures have open S-hooks. Excessive swing mitigated by conduit, unistrut, etc. Fixtures not judged to disengage from S-hooks and therefore are acceptable. S hooks closed during walkdown. Refer to IR 1402669.

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

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

Other Adverse Conditions

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

All panel doors were opened. No adverse seismic conditions were observed.

Comments

SEWS Anchorage Notes:

30"Dx72"Wx90"H Panel anchored by 4 - 3/4" (flat-flat on bolt head) CEA shells in corners (approximately 4 inches in from corners).

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Evaluated by: David Carter

Date: 10/4/2012

James D. Griffith
James Griffith

10/4/2012

Status: Y N U

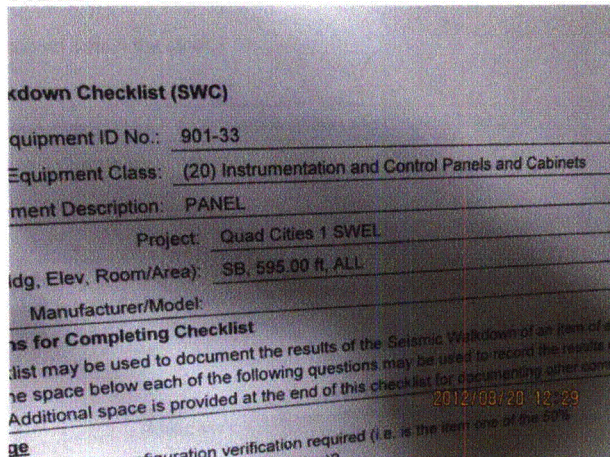
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-33

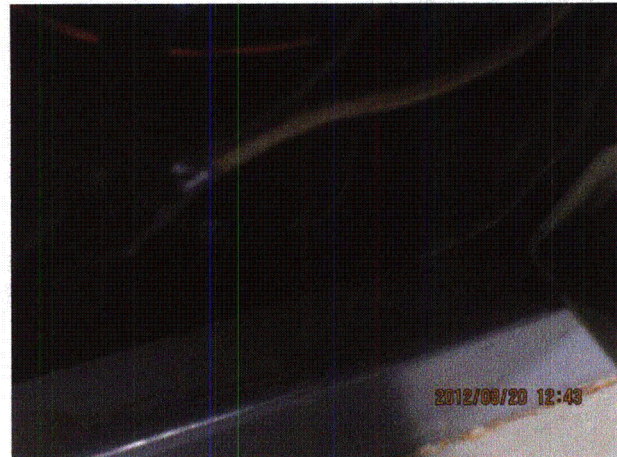
Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: PANEL

Photos



8-20-12 Quad Cities 121 (1)



8-20-12 Quad Cities 121 (10)

Status: Y N U

Seismic Walkdown Checklist (SWC)

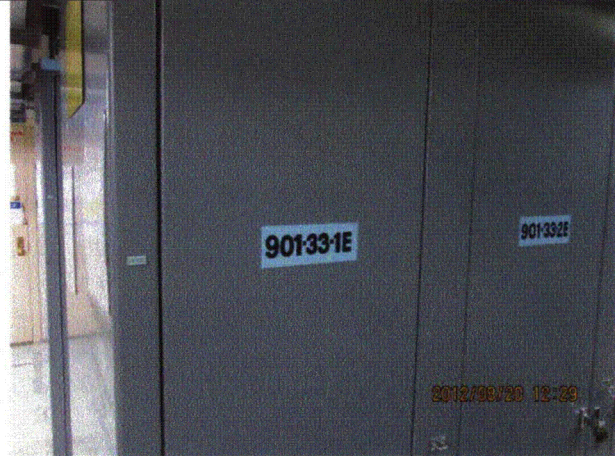
Equipment ID No.: 901-33

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

Equipment Description: PANEL



8-20-12 Quad Cities 121 (11)



8-20-12 Quad Cities 121 (2)

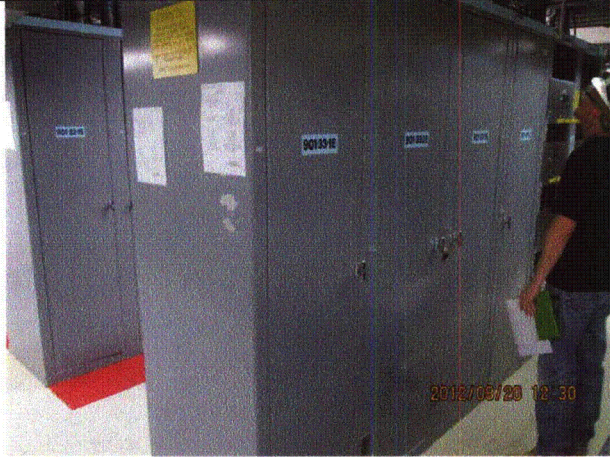
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-33

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

Equipment Description: PANEL



8-20-12 Quad Cities 121 (3)



8-20-12 Quad Cities 121 (4)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-33

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

Equipment Description: PANEL



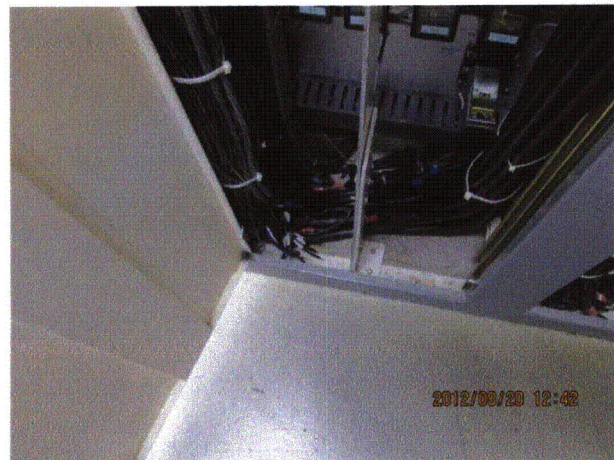
8-20-12 Quad Cities 121 (5)



8-20-12 Quad Cities 121 (6)



8-20-12 Quad Cities 121 (7)



8-20-12 Quad Cities 121 (8)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-33

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

Equipment Description: PANEL



8-20-12 Quad Cities 121 (9)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-39

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

Equipment Description: PANEL

Project: Quad Cities 1 SWEL

Location (Bldg, Elev, Room/Area): SB, 595.00 ft, ALL

Manufacturer/Model:

Instructions for Completing Checklist

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

Anchorage

1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Yes

2. Is the anchorage free of bent, broken, missing or loose hardware? Yes

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes

4. Is the anchorage free of visible cracks in the concrete near the anchors? Yes
Minor shrinkage cracking judged to be acceptable.

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

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

Interaction Effects

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

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-39

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

Equipment Description: PANEL

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Yes
Overhead light fixtures have open S-hooks. Excessive swing mitigated by conduit, unistrut, etc. Fixtures not judged to disengage from S-hooks and therefore are acceptable. Refer to IR 1402669.
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Yes

Other Adverse Conditions

11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Yes
All panel doors were opened. No adverse seismic conditions were observed.

Comments

SEWS Anchorage Notes:

30"Dx48"Wx90"H Panel anchored by 4 - 3/4" (flat-flat on bolt head) CEA in corners.

Seismic Walkdown Team: D. Carter & J. Griffith - 8/20/2012

Evaluated by: David Carter Date: 10/4/2012
James D. Griffith James Griffith 10/4/2012

Status: Y N U

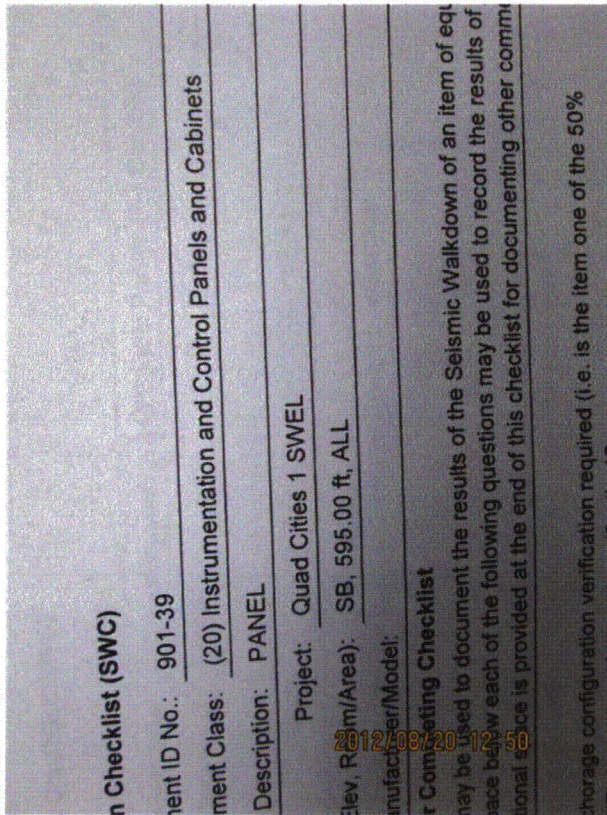
Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-39

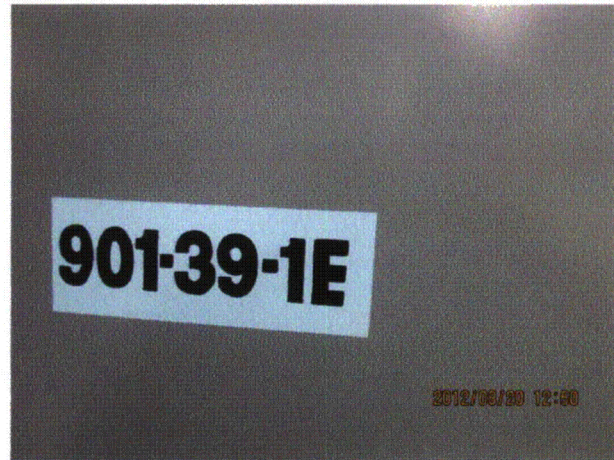
Equipment Class: (20) Instrumentation and Control Panels and Cabinets

Equipment Description: PANEL

Photos



8-20-12 Quad Cities 132 (1)



8-20-12 Quad Cities 132 (2)

Status: Y N U

Seismic Walkdown Checklist (SWC)

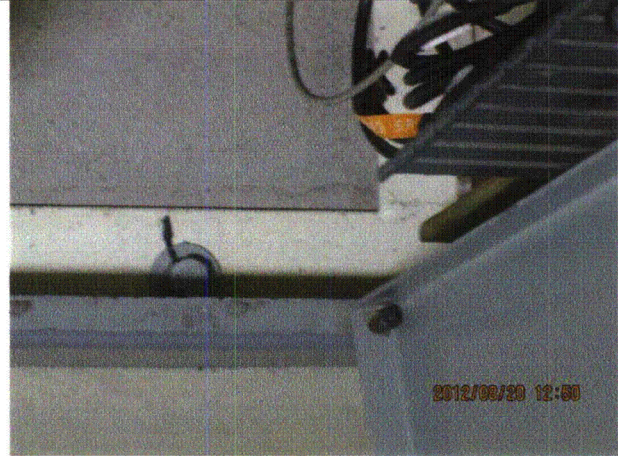
Equipment ID No.: 901-39

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

Equipment Description: PANEL



8-20-12 Quad Cities 132 (3)



8-20-12 Quad Cities 132 (4)

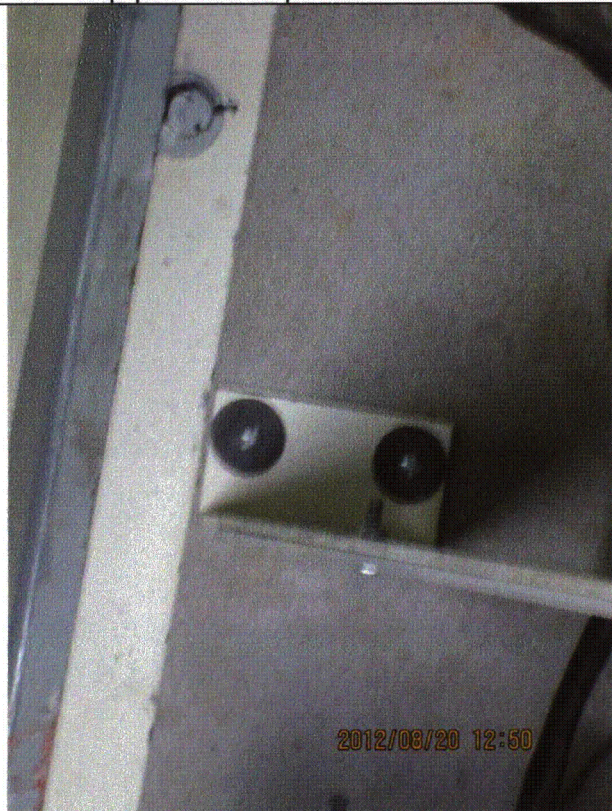
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-39

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

Equipment Description: PANEL



8-20-12 Quad Cities 132 (5)



8-20-12 Quad Cities 132 (6)

Status: Y N U

Seismic Walkdown Checklist (SWC)

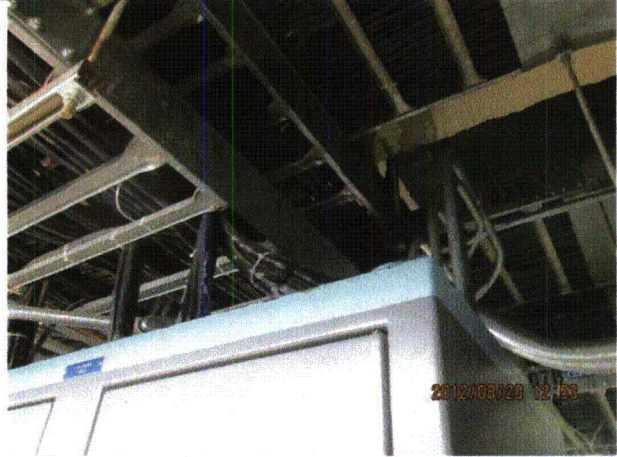
Equipment ID No.: 901-39

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

Equipment Description: PANEL



8-20-12 Quad Cities 132 (7)



8-20-12 Quad Cities 132 (8)

Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No.: 901-39

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

Equipment Description: PANEL



8-20-12 Quad Cities 132 (9)