

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P081 Equip. Class¹ 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack

Location: Bldg. AB Floor El. 659'-6" Room, Area A-34, Col. F-11

Manufacturer, Model, Etc. (optional but recommended) N/A

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
There are no Bent, Broken, Missing or loose bolts. However, only one anchor bolt has full thread engagement per Fermi Spec. 3071-226, Rev. K, Section 3.3.5.4(b). See attached "Hand sketch". Card 12-27702 was initiated to resolve this matter.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
No corrosion or oxidation inside the cabinet. (see photo DSC01177)
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Barely visible hairline cracks were noted in the concrete floor. The cracks are "Shrinkage" cracks and not cause for concern.
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 anchorage configuration verification is required.)
Anchorage configuration is consistent with the following documents: I-2525-25, Rev. E (No postings). Calc. No. DC-1073, Rev. A (No postings). Calc. No. DC-5634 Vol. I, Rev. 0 (Two postings not applicable). TDEC 3526 "Seismic Qualification" Dated 12/11/1978 (No postings) and Calc. No. DC-5157 Vol. I, Rev. C (Five postings not applicable). (see photos DSC01158, 01159, 01162 & 01164)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
All but the bottom three cabinet-to cabinet bolts in the northeast corner of H21P081 are viewable from the H21P083 side (see photo DSC01157). All anchor bolts were visible and only one anchor bolt had full thread engagement (at least one thread exposed from face of nut) per Spec. 3071-226. CARD 12-27702 was initiated.

¹ Enter the equipment class name from Appendix B: Classes of Equipment

RW

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P081 Equip. Class¹ 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Enclosed cabinet. No concern with impact.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
No ceiling tiles. Overhead equipment and distribution systems are adequately supported. Light fixture is at least one foot away and securely attached to the ceiling. Nearby block walls are seismically reinforced.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Attached cables/raceways have adequate flexibility. No concern for damage due to 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 potential adverse seismic interaction effects. The adjacent cabinets are bolted together side by side. No possibility of banging into each other (see photo DSC01169).

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
Mounting of internal components, doors, etc. structurally adequate. All anchor bolts, except bolt in southeast corner, have beveled washers. Bolt in southeast corner has a flat, round washer. Per 1969 AISC specification, a beveled washer is required. Initiated CARD 12-27702 to resolve matter. (see photo DSC01157, 01176 & 01177)

Ry

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P081 Equip. Class¹ 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack

Comments (Additional pages may be added as necessary)

None

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1 : *Romualdo* Date: 10-4-2012

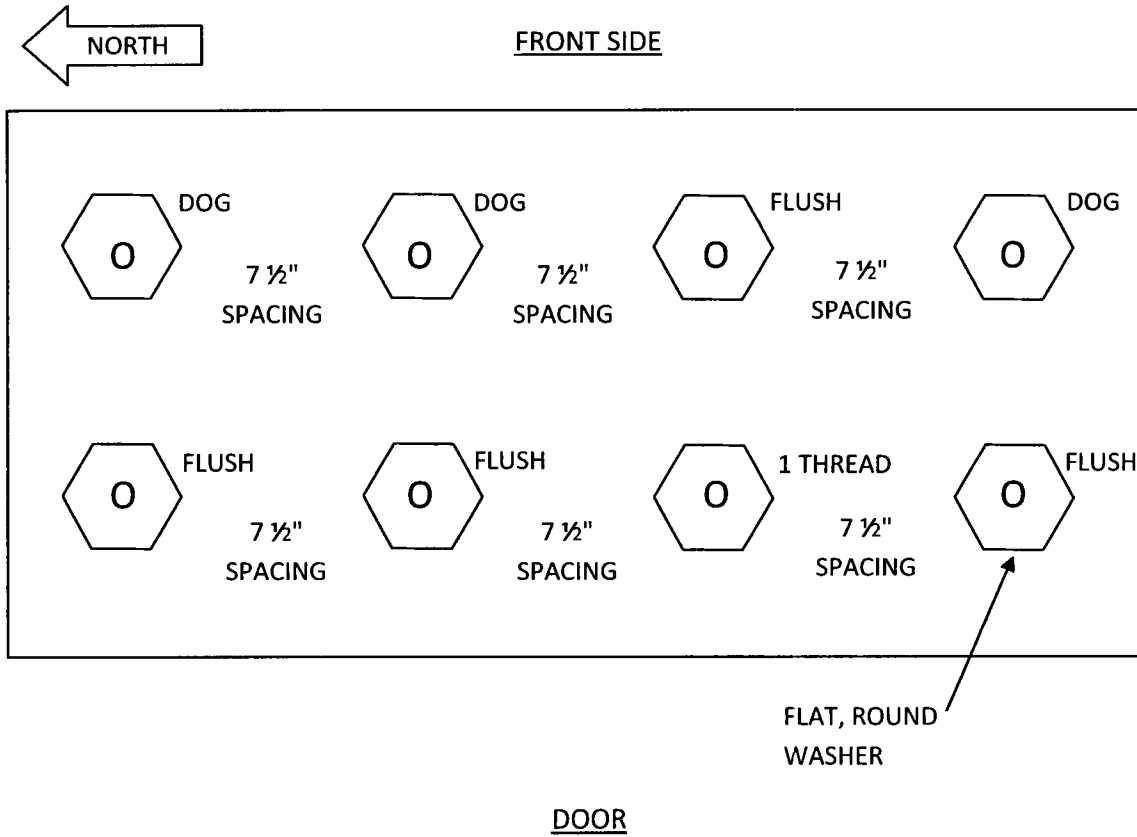
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2 : *Joseph M. Berez* Date: 10/04/2012

Seismic Walkdown "Hand Sketch"

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



Notes: Bolt letter 'O' indicates 8 1/2" Long Bolt.

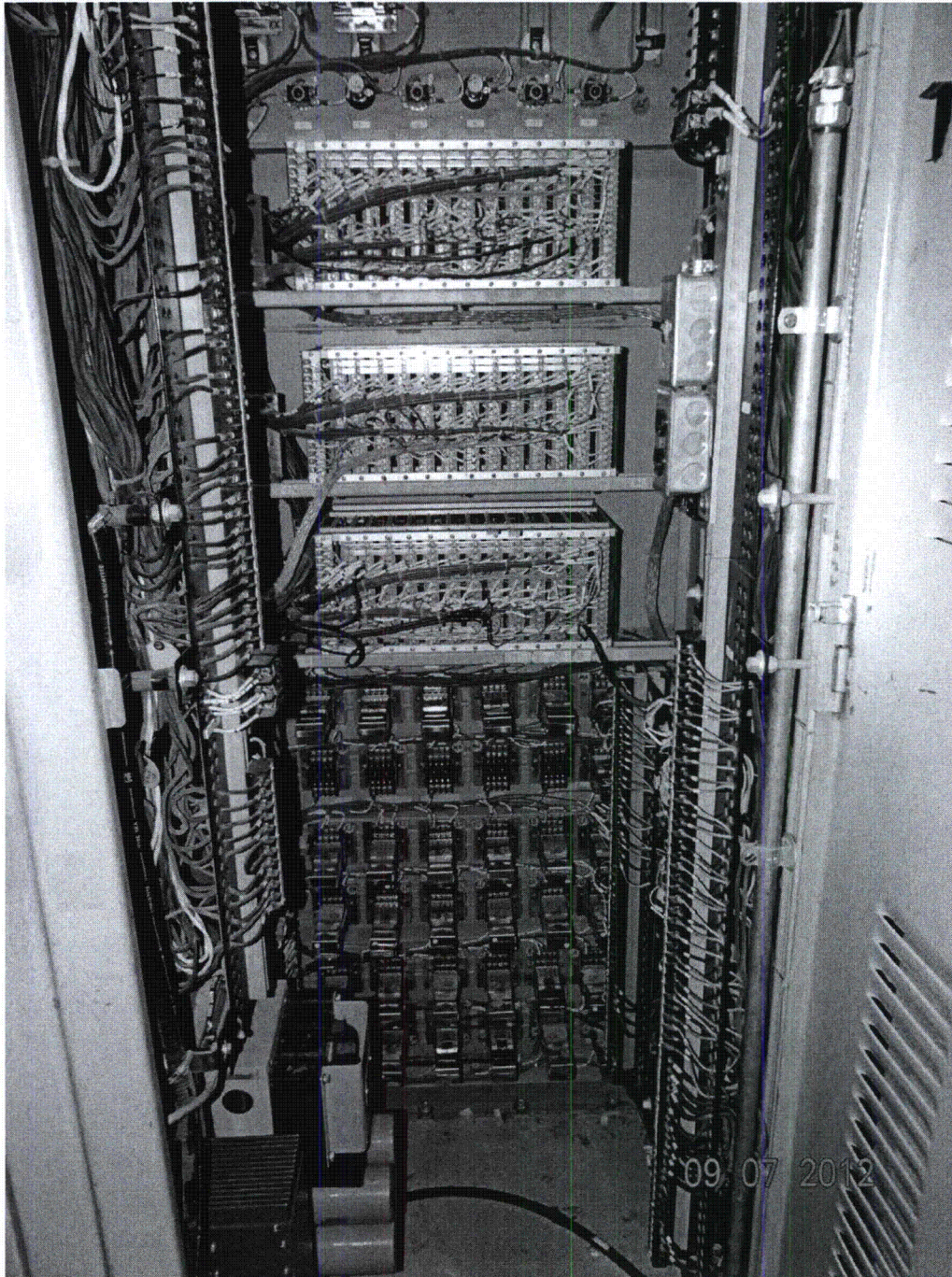
1 Thread Engagement – Acceptable Condition

Dog and Flush Engagement – Unacceptable Condition

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



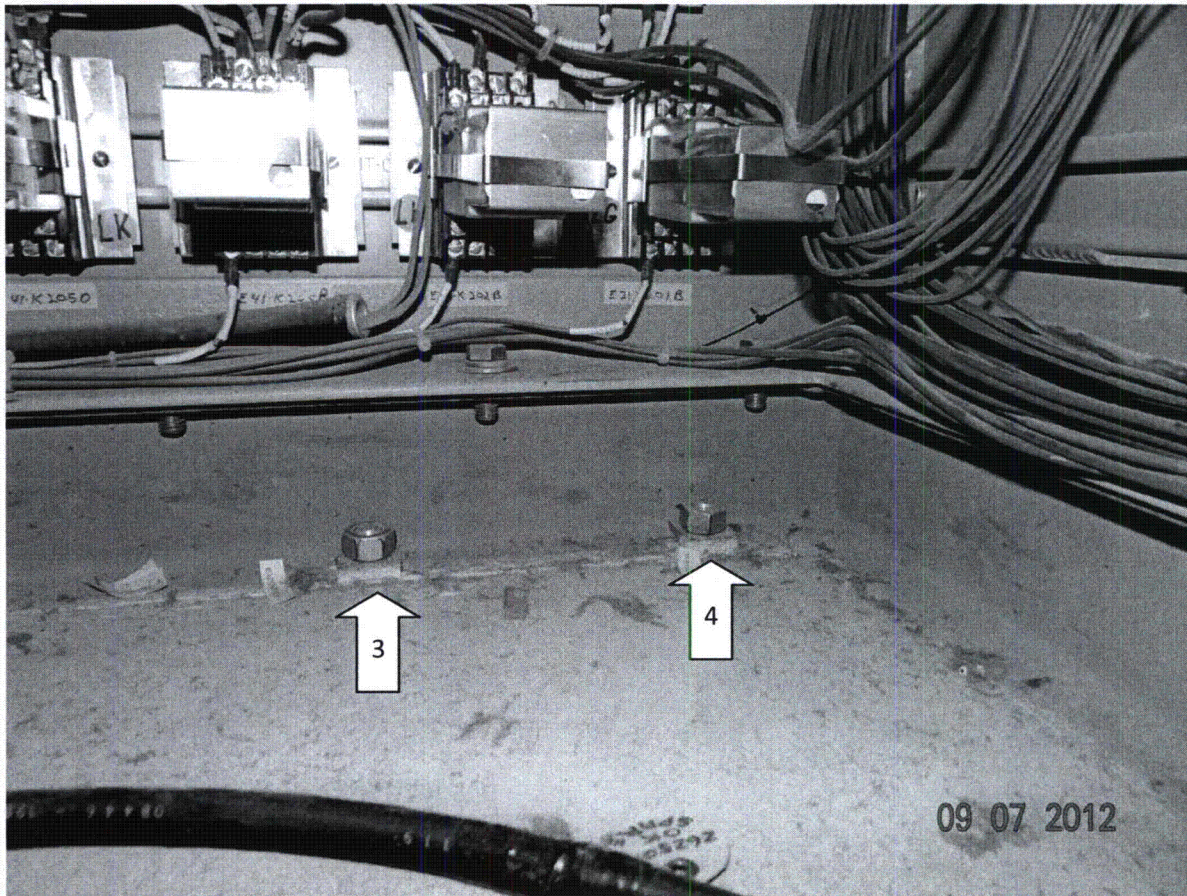
(DSC01157)

"Inside Cabinet Components"

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



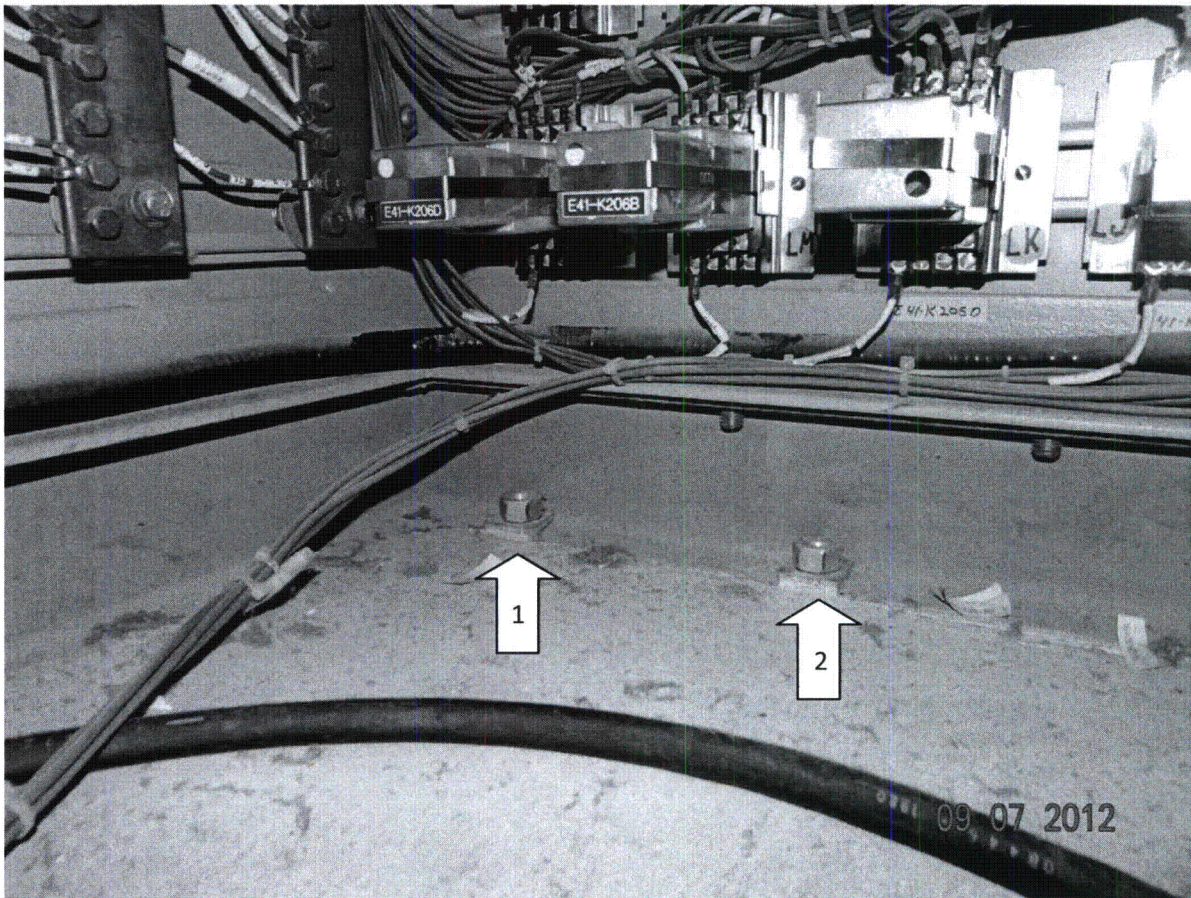
(DSC01158)

"Bolt Configuration"

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



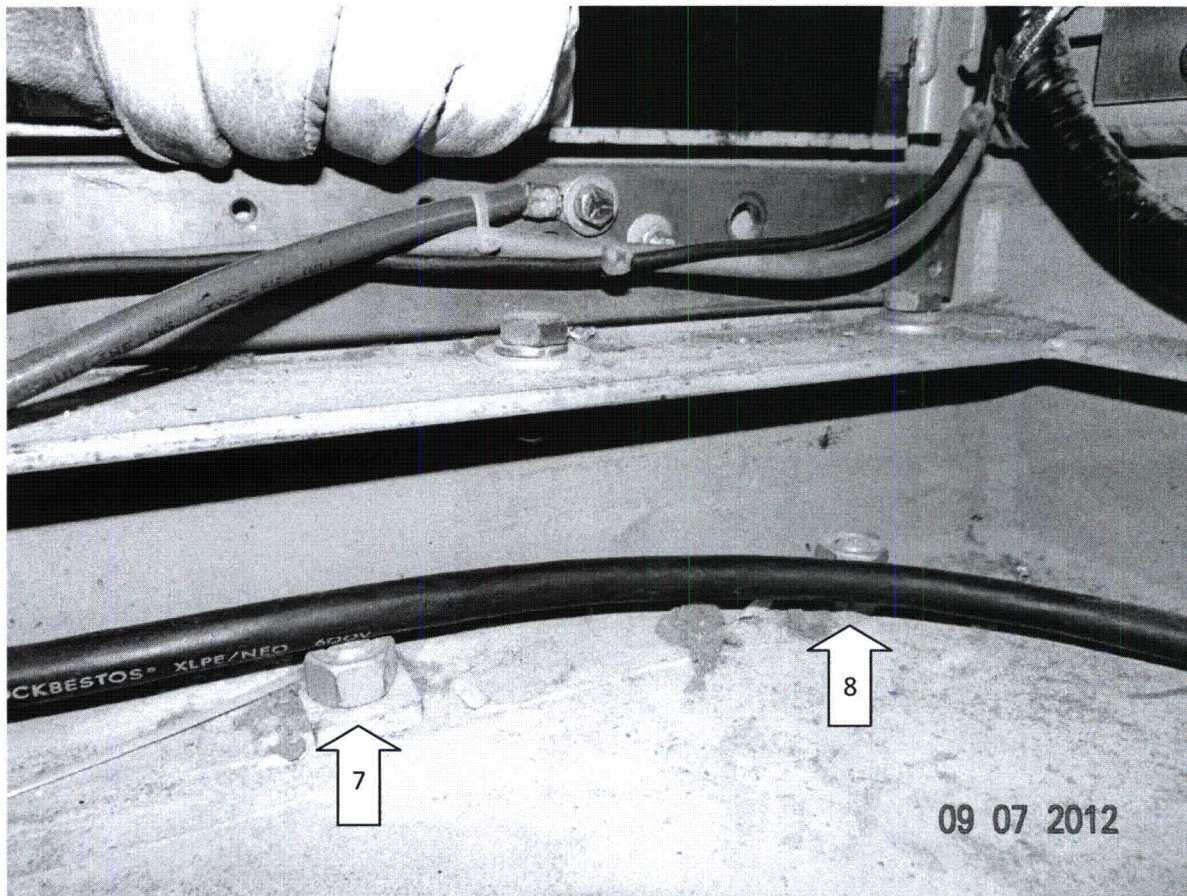
(DSC01159)

"Bolt Configuration"

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



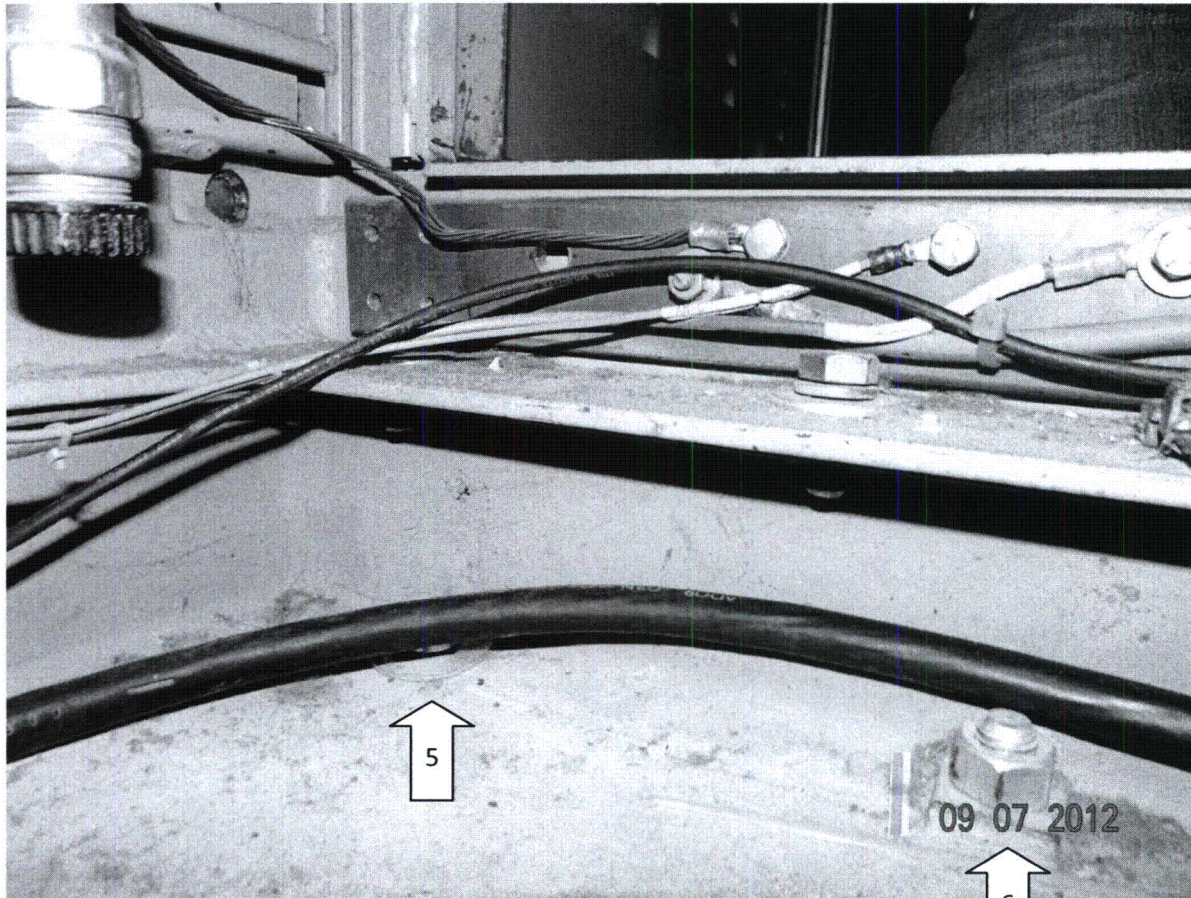
(DSC01162)

"Bolt Configuration near panel door"

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



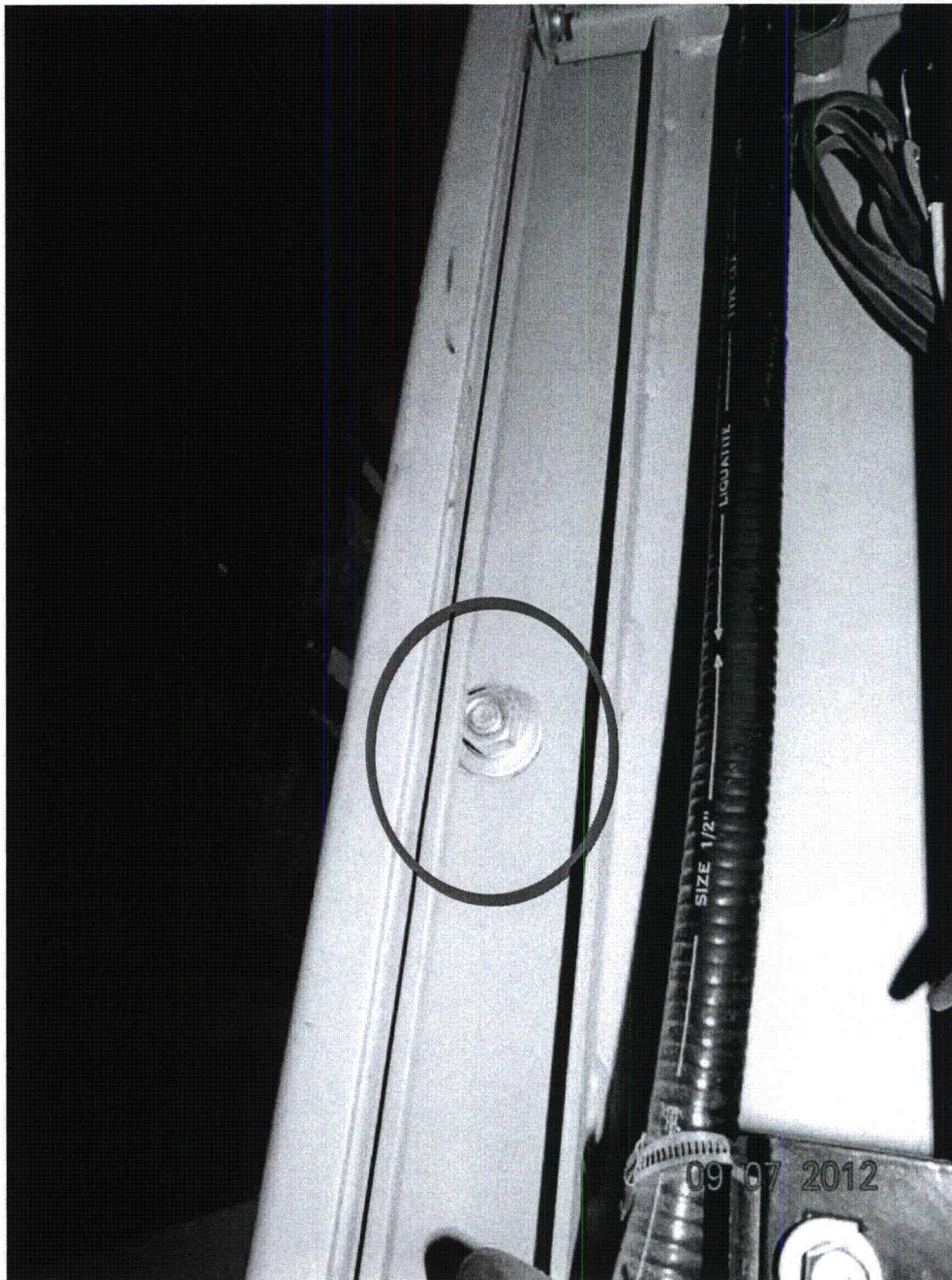
(DSC01164)

"Bolt Configuration near panel door"

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



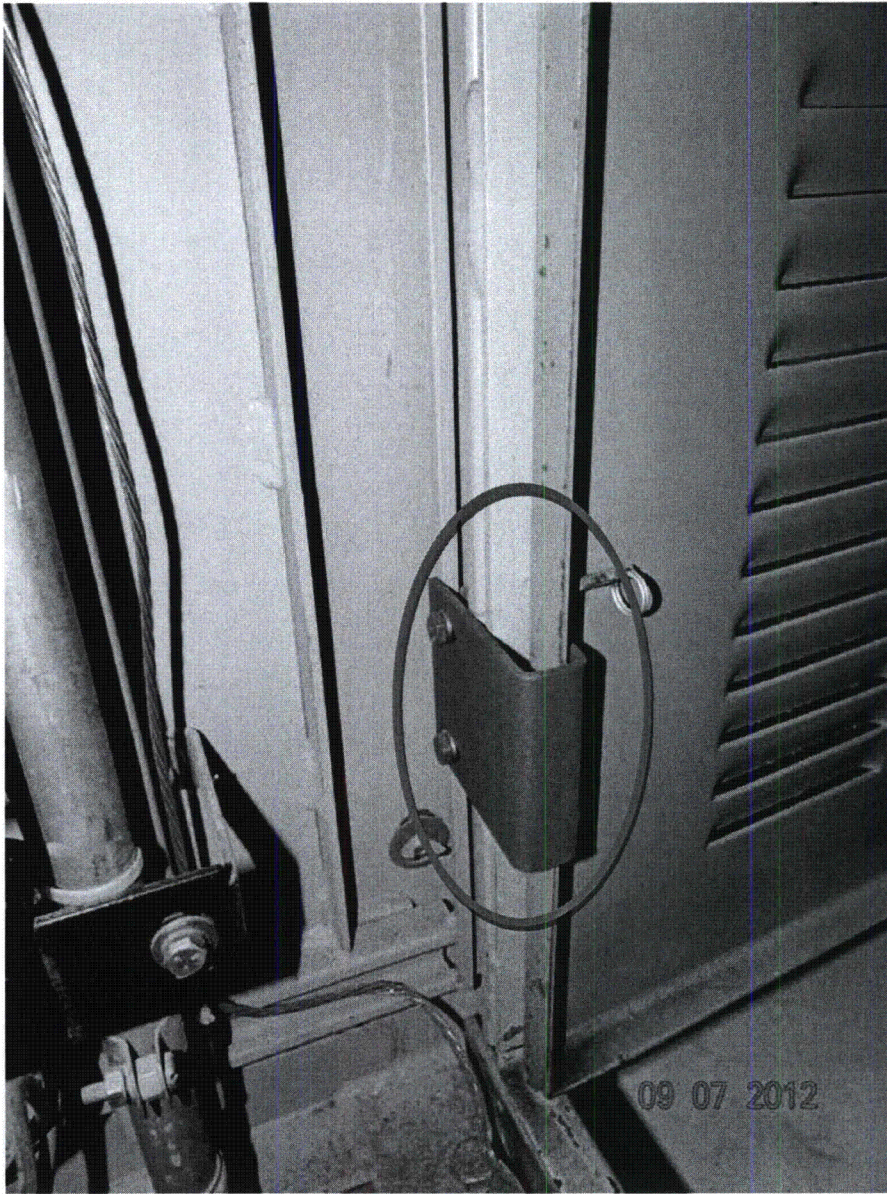
(DSC01169)

"Side to side Mounting Bolts"

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



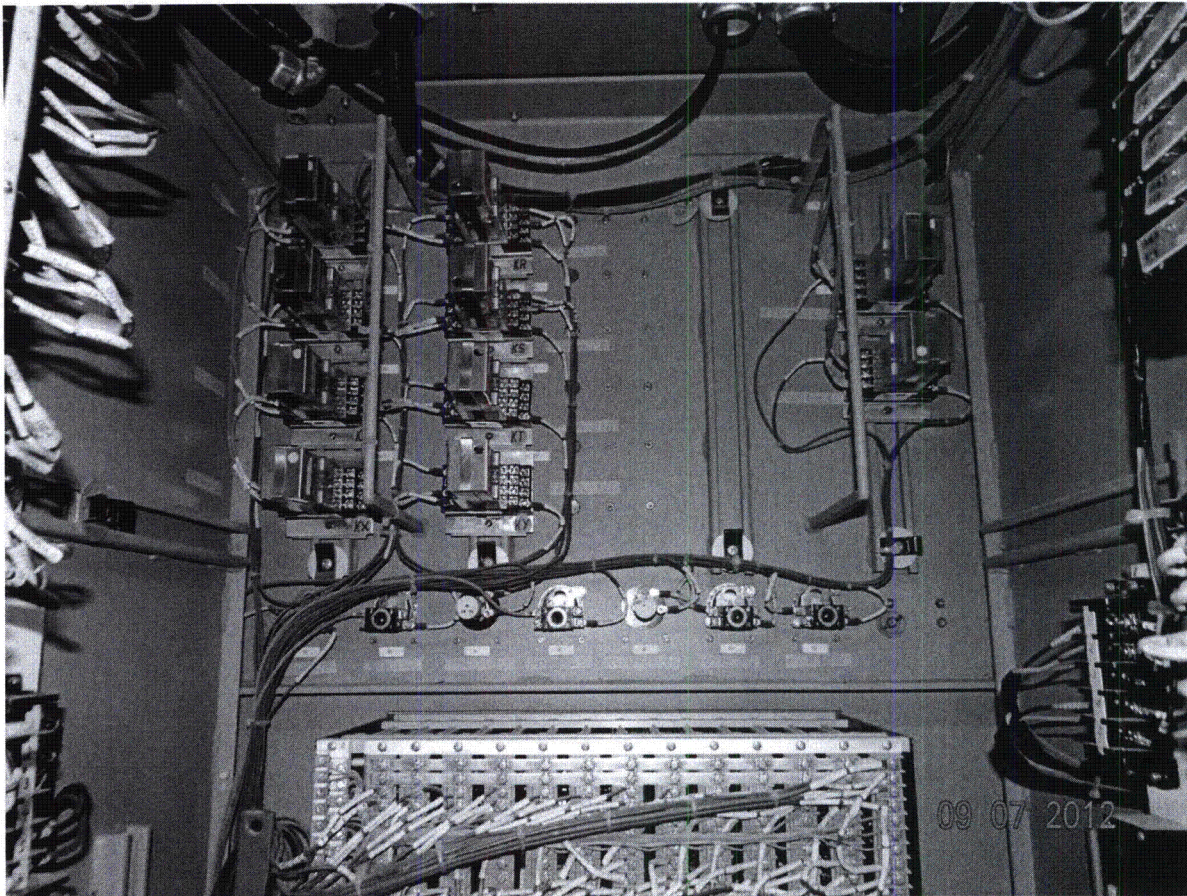
(DSC01176)

"Door hinge w/washer & lock-nut"

Seismic Walkdown Pictures

Equipment ID No. H21P081 Equipment Class: 18, Instrument Racks

Equipment Description Div 2 EECS Trip Unit Instrument Rack



(DSC01177)

"Flexible Wires & Internal Components"

NJPR-12-0043

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P083 Equip. Class¹ 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2

Location: Bldg. AB Floor El. 659'-6" Room, Area A-34, Col. F-11

Manufacturer, Model, Etc. (optional but recommended) N/A

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
No Broken, Missing or loose bolts. Thread engagement on five anchor bolts is less than one thread exposed from face of nut per Fermi Spec. 3071-226, Rev. K, Section 3.3.5.4(b). See attached "Hand sketch". Card 12-27702 was initiated to resolve this matter.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
No corrosion or oxidation inside the cabinet.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Minor hairline cracks visible within 1" of anchor bolt. See attached "Hand sketch". The cracks are "Shrinkage" cracks and not cause for concern (see photo DSC01136).
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 anchorage configuration verification is required.)
Anchorage configuration is consistent with the following documents: I-2525-25, Rev. E (No postings). Calc. No. DC-1073, Rev. A (No postings), Calc. No. DC-5634 Vol. I, Rev. 0 (Two postings not applicable). TDEC 3526 "Seismic Qualification" Dated 12/11/1978 (No postings) and Calc. No. DC-5157 Vol. I, Rev. C (Five postings not applicable). (see photos DSC01158, 01159, 01162 & 01164)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Item (2) - Five anchor bolts do not have full thread engagement per Fermi spec. 3071-226. Anchor bolt in northwest corner of cabinet has a flat washer instead of a beveled washer. See attached "Hand sketch". (see photo DSC01140). CARD 12-27702 was initiated. Bottom, southwest cabinet to cabinet bolt not visible due to wires in cabinet.

¹ Enter the equipment class name from Appendix B: Classes of Equipment

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P083 Equip. Class¹ 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Enclosed cabinet. No concern with impact.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
No ceiling tiles. Overhead equipment and distribution systems are adequately supported. Light fixture is at least one foot away and securely attached to the ceiling. Nearby block walls are seismically reinforced.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Attached cables/raceways have adequate flexibility. No concern for damage due to 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 potential adverse seismic interaction effects. The adjacent cabinets are bolted together side by side. No possibility of banging into each other (see photos DSC01144, 01147, 01150 & 01153).

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
No loose fasteners on internal components. Top hat above the panel doesn't have loose or missing fasteners. Front panel doesn't have any missing or loose fasteners. No other seismic conditions found.

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: Y U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P083 Equip. Class¹ 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2

Comments (Additional pages may be added as necessary)

None

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: *Ronald Lorf* Date: 10-4-2012

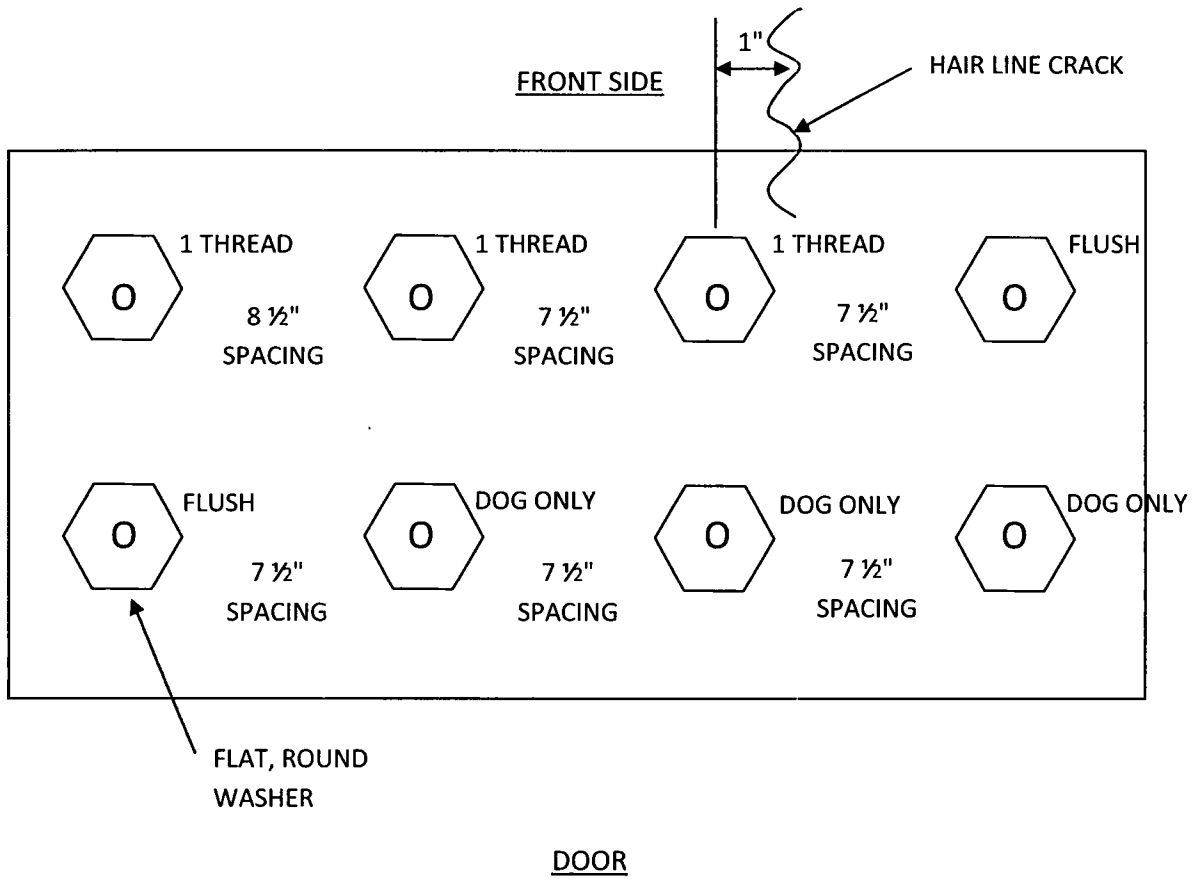
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: *Joseph M. Falvo* Date: 10/04/2012

Seismic Walkdown "Hand Sketch"

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



Notes: Bolt letter 'O' indicates 8 ½" Long Bolt.

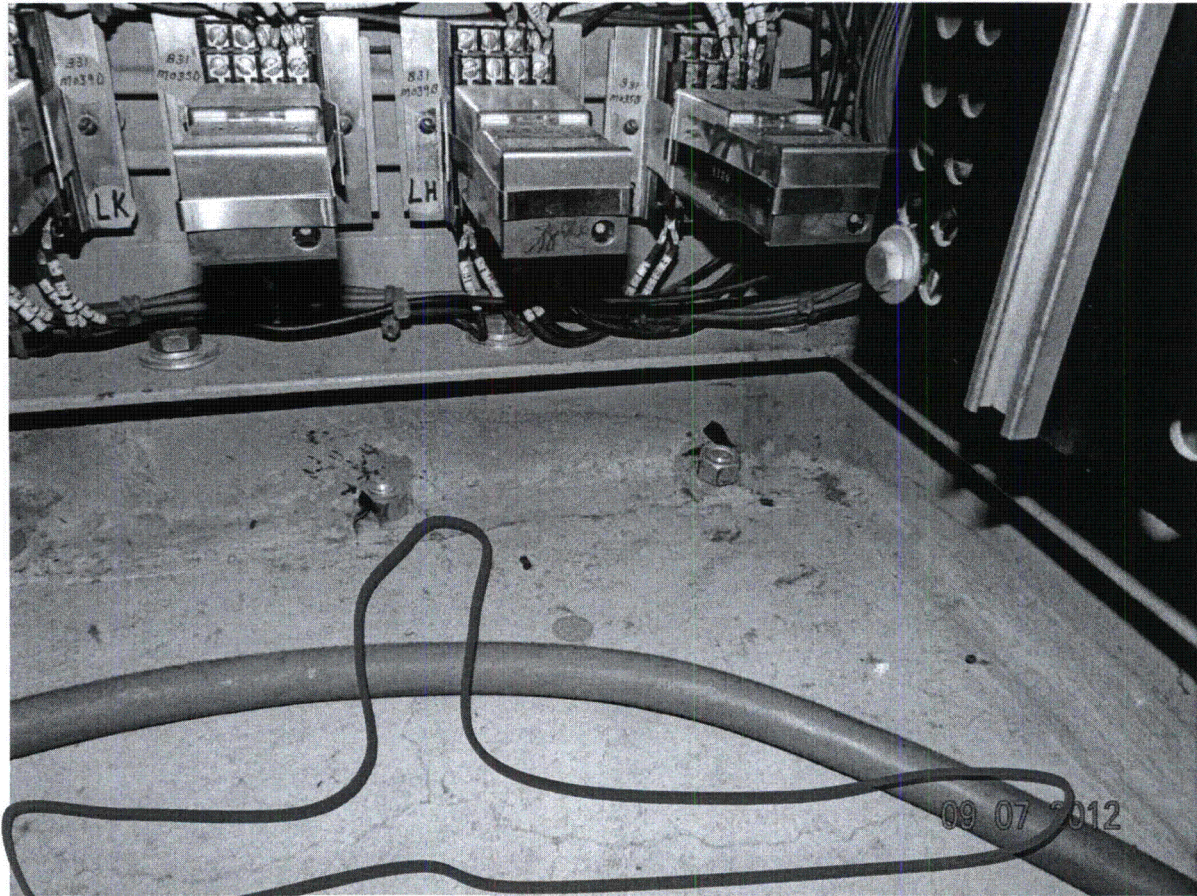
1 Thread Engagement – Acceptable Condition

Dog and Flush Engagement – Unacceptable Condition

Seismic Walkdown Pictures

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



(DSC01136)

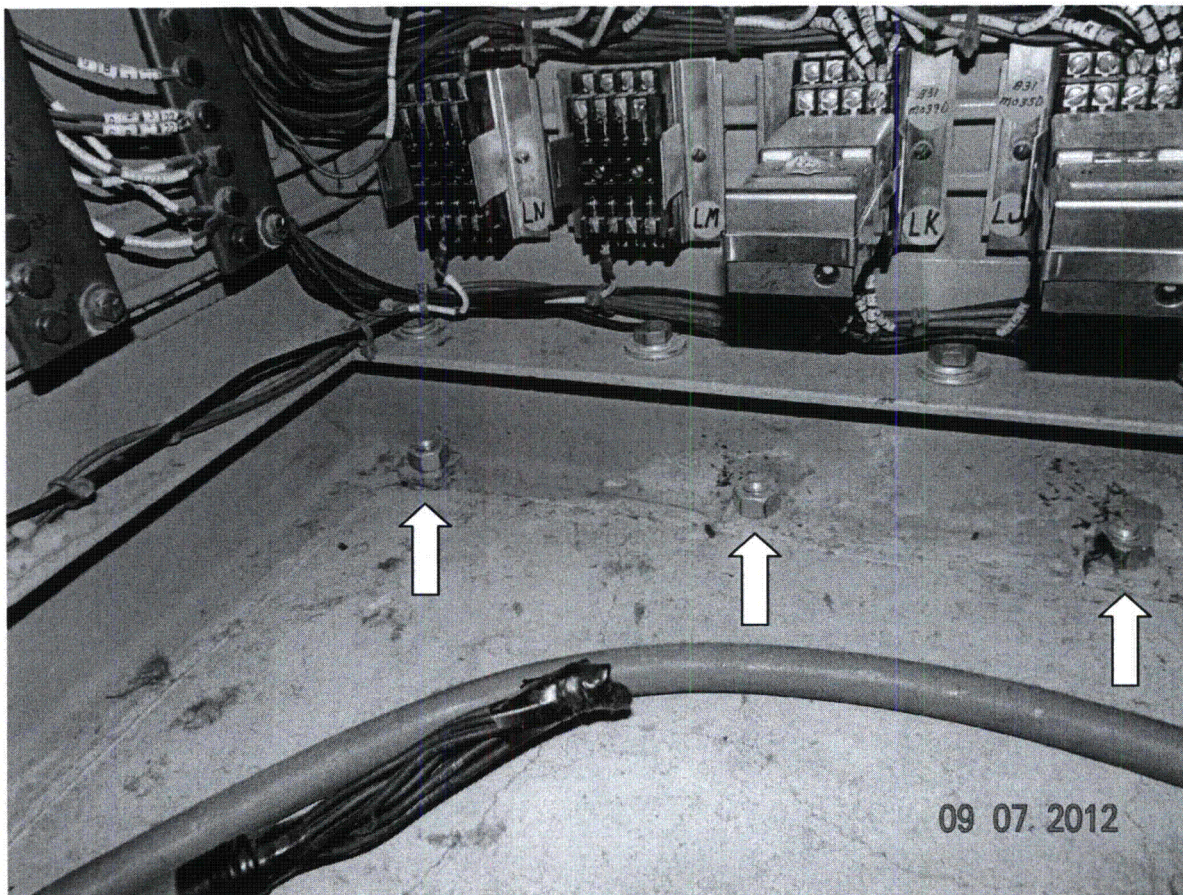
"Bolt to Concrete Floor"

Hairline Cracks on Floor

Seismic Walkdown Pictures

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



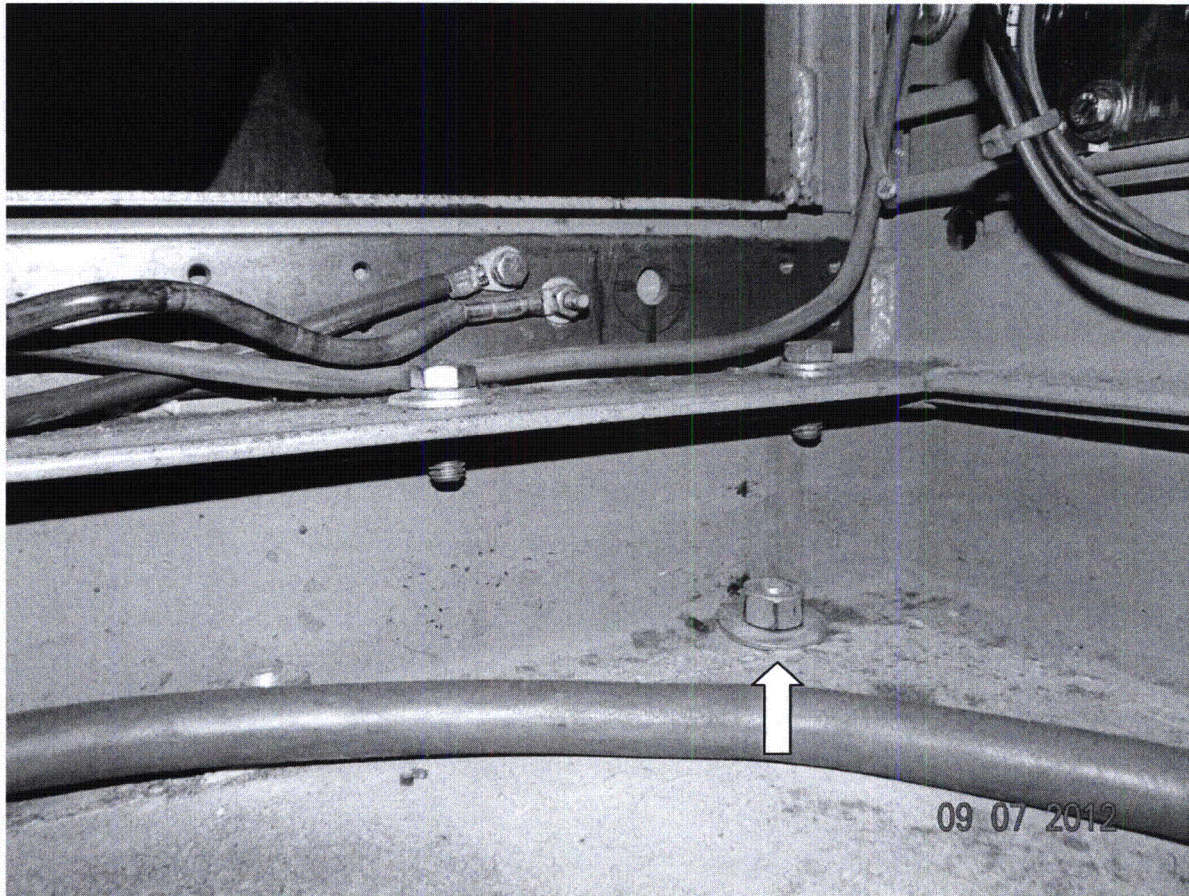
(DSC01137)

"Verified Bolt Spacing & Connection to Floor"

Seismic Walkdown Pictures

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



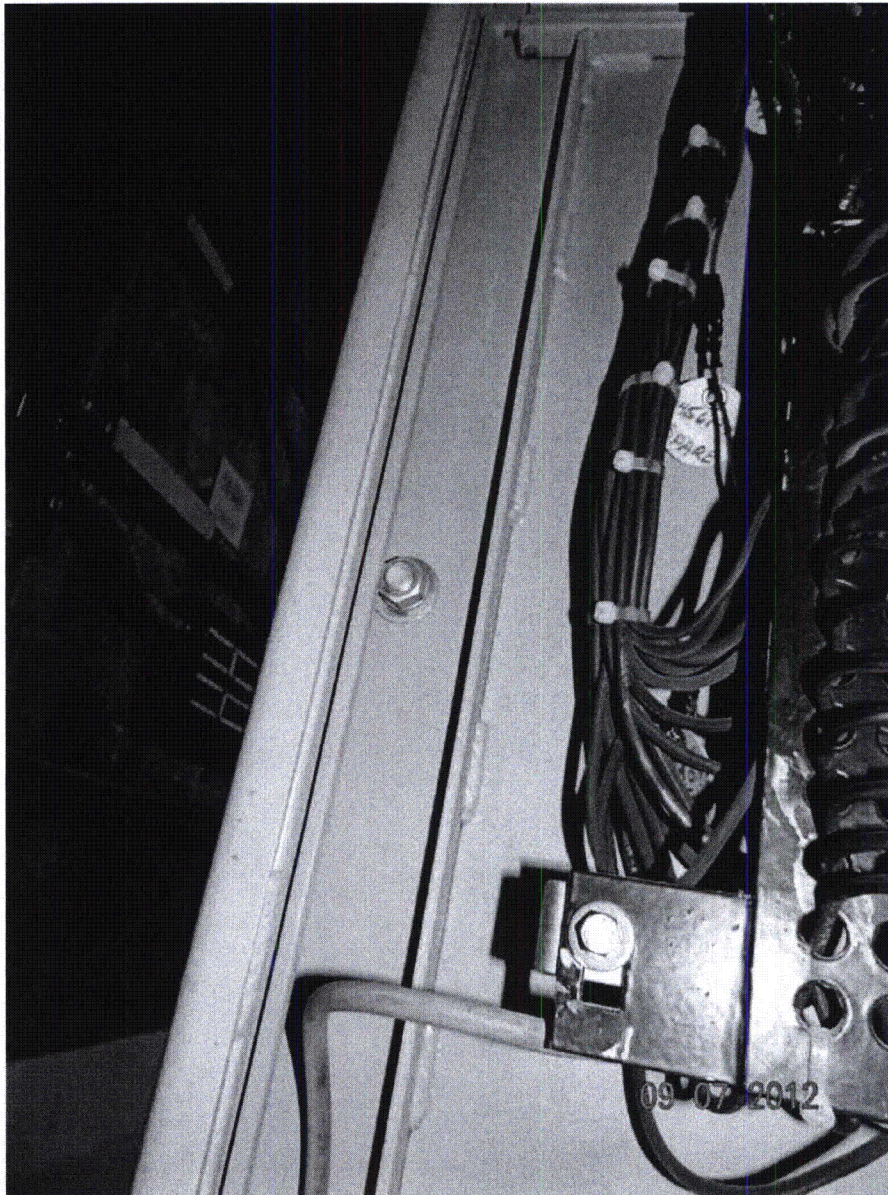
(DSC01140)

"Bolt with Round Washer"

Seismic Walkdown Pictures

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



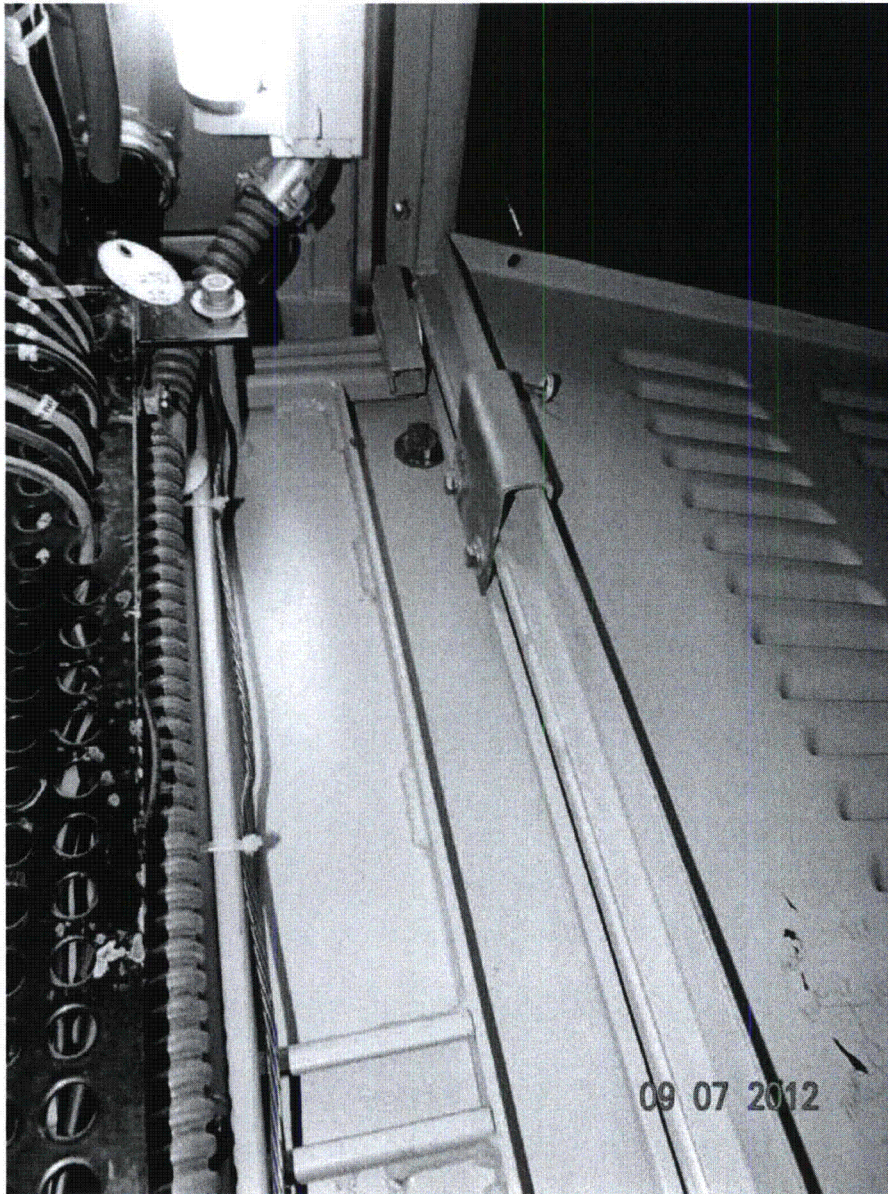
(DSC01144)

"Side to Side Cabinet Bolting"

Seismic Walkdown Pictures

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



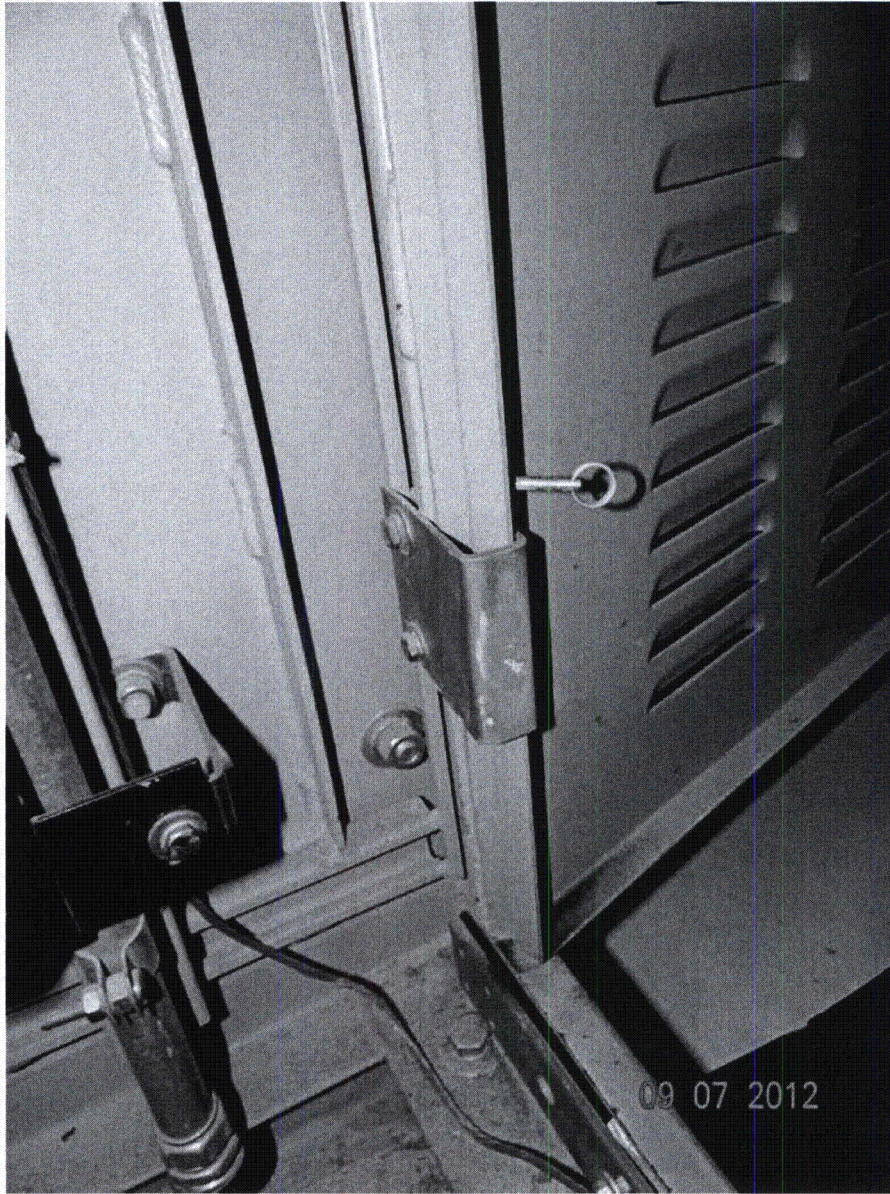
(DSC01147)

"Panel Door Hinges"

Seismic Walkdown Pictures

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



(DSC01150)

"Side to side cabinet Bolts"

Seismic Walkdown Pictures

Equipment ID No. H21P083 Equipment Class: 18, Instrument Racks

Equipment Description EECS Trip Unit Cabinet, Div 2



(DSC01153)

"Side to side cabinet Bolts"

NJPR-12-0043

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P085 Equip. Class¹ 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2

Location: Bldg. AB Floor El. 659'-6" Room, Area A-34, Col. F-11

Manufacturer, Model, Etc. (optional but recommended) N/A

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
All bolts correct size, acceptable spacing, and appear tight. Thread engagement on five anchor bolts is less than one thread exposed from face of nut per Fermi Spec. 3071-226, Rev. K, Section 3.3.5.4(b). See attached "Hand sketch". Card 12-27702 was initiated to resolve this matter.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
All bolts are corrosion-free or painted.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Minor hairline cracks between anchors. The crack is a "Shrinkage" crack and not cause for concern. (see photo DSC01116)
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 anchorage configuration verification is required.)
Anchorage configuration is consistent with the following documents: I-2525-25, Rev. E (No postings). Calc. No. DC-1073, Rev. A (No postings). Calc. No. DC-5634 Vol. I, Rev. 0 (Two postings not applicable). TDEC 3526 "Seismic Qualification" Dated 12/11/1978 (No postings) and Calc. No. DC-5157 Vol. I, Rev. C (Five postings not applicable). (see photos DSC01158, 01159, 01162 & 01164)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Item (2) - Five anchor bolts do not have full thread engagement per Fermi spec. 3071-226. CARD 12-27702 was initiated to resolve this matter.

¹ Enter the equipment class name from Appendix B: Classes of Equipment

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P085 Equip. Class¹ 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Due to enclosed cabinet, no potential exists for impact with in the cabinet.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
No ceiling tiles. Lights seismically supported and over 1'-0" away. Overhead systems and block walls are seismically supported.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
All Conduits are flex conduits with ample flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
Adjacent cabinets are bolted together side by side to prevent banging into each other, thus cabinets are free of potentially adverse seismic interaction effects. (see photos DSC01118, 01126 & 01128)

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
Mounting of internal components structurally adequate. Doors & other attachments free of adverse seismic conditions.

Roy

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P085 Equip. Class¹ 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2

Comments (Additional pages may be added as necessary)

None

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: *R. M. ...* Date: 10-4-2012

Seismic Engineer Walkdown PSE-53 Qualified

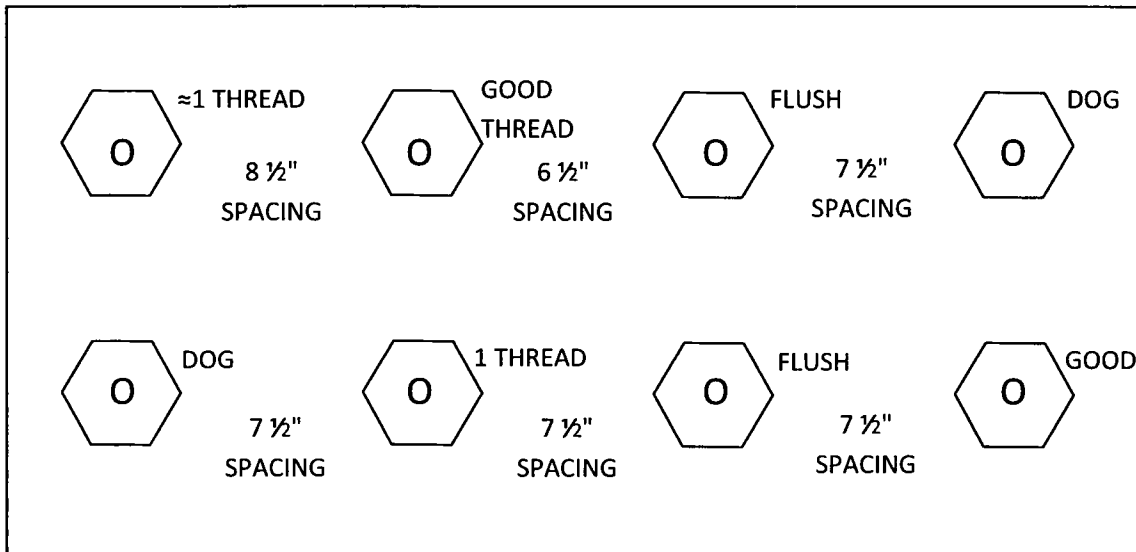
Evaluator #2: *Joseph M. Baker* Date: 10/04/2012

Seismic Walkdown "Hand Sketch"

Equipment ID No. H21P085 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2

FRONT SIDE



DOOR

Notes: Bolt letter 'O' indicates 8 1/2" Long Bolt.

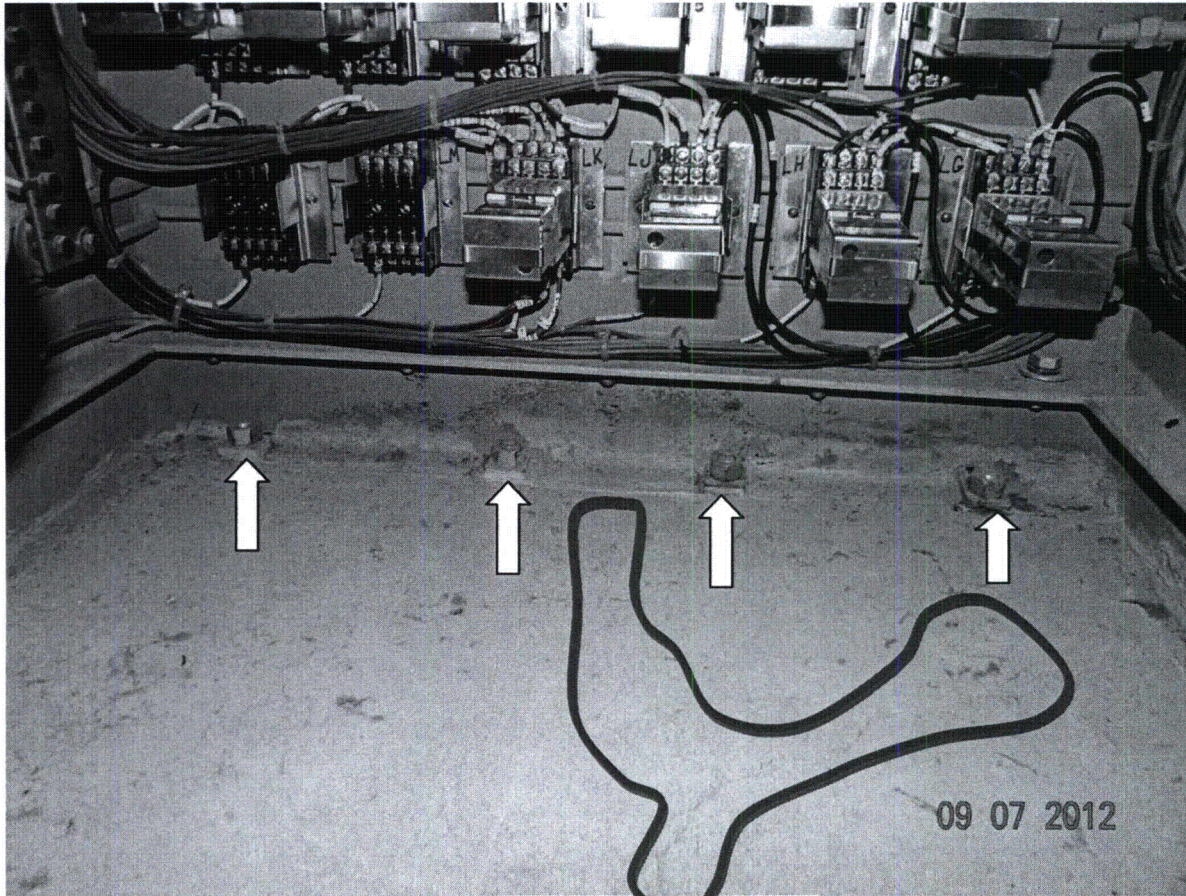
1 Thread Engagement – Acceptable Condition

Dog and Flush Engagement – Unacceptable Condition

Seismic Walkdown Pictures

Equipment ID No. H21P085 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2



(DSC01116)

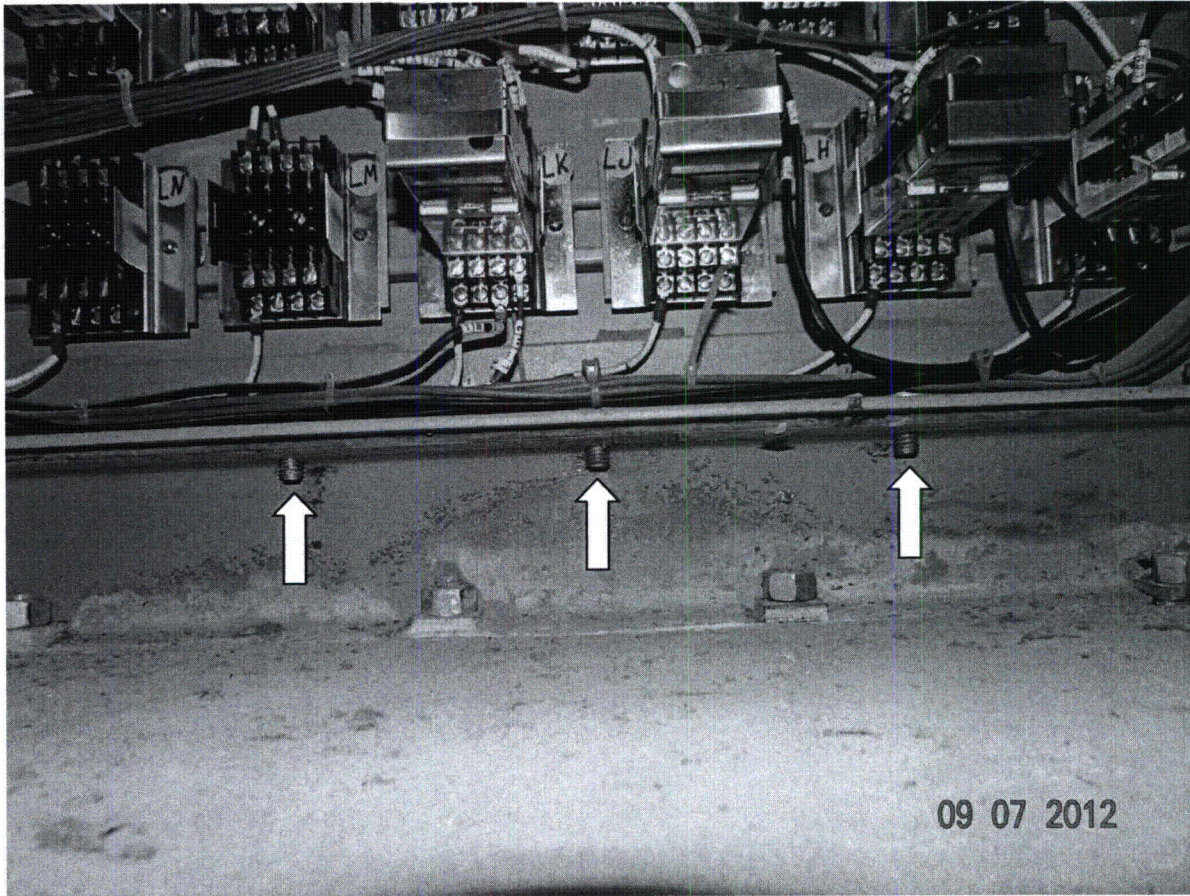
"Shrinkage" crack

"Bolt Configuration"

Seismic Walkdown Pictures

Equipment ID No. H21P085 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2



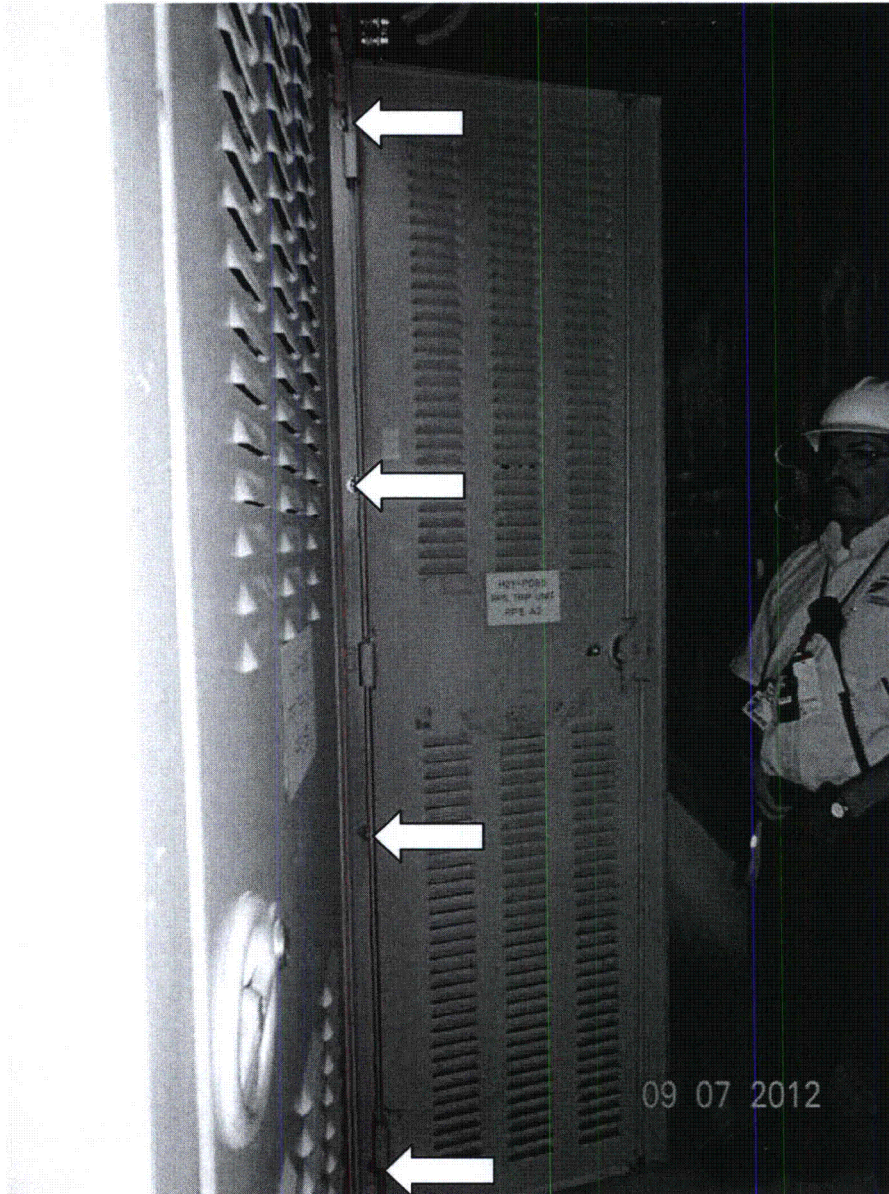
(DSC01118)

"Connection between angle and Channel"

Seismic Walkdown Pictures

Equipment ID No. H21P085 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2



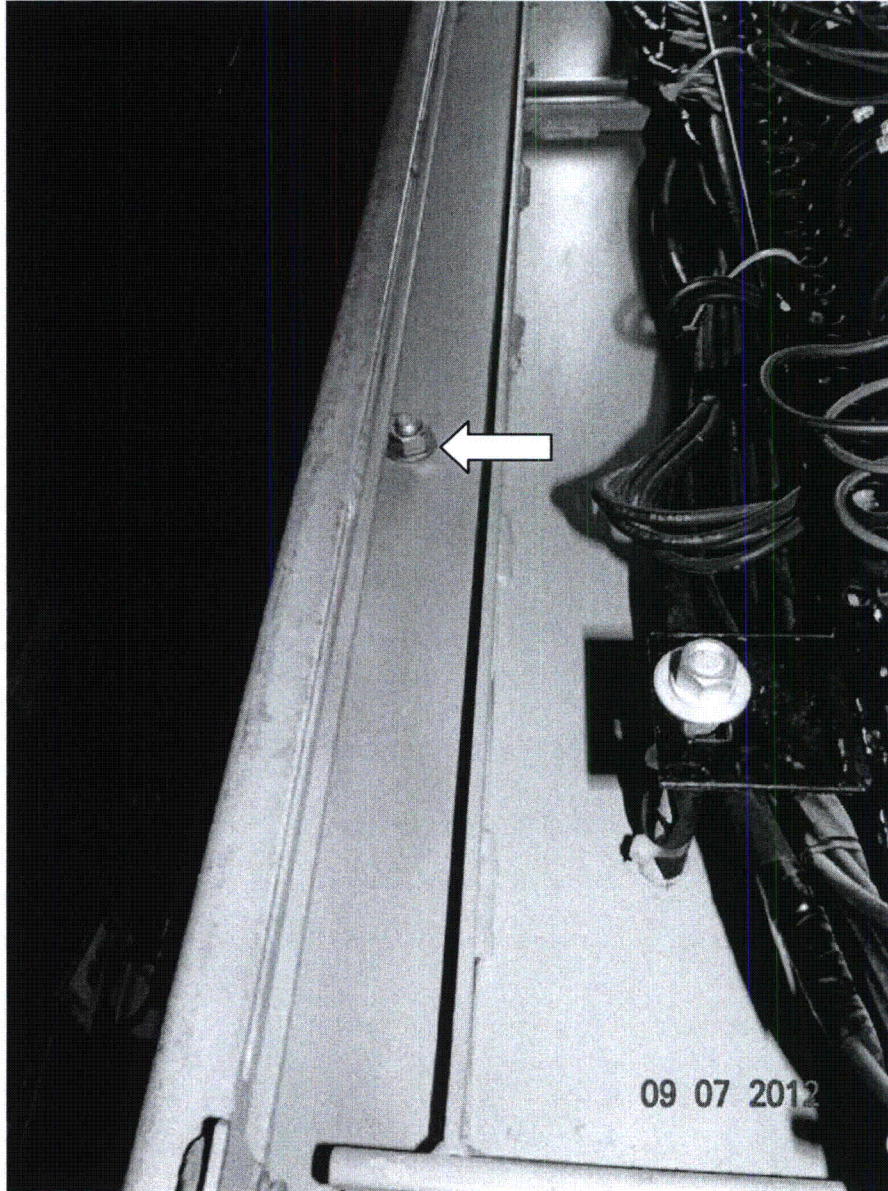
(DSC01126)

"Side to side panel bolting"

Seismic Walkdown Pictures

Equipment ID No. H21P085 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet A2, Div 2



(DSC01128)

"Side to Side panel Bolt"

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P087 Equip. Class¹ 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2

Location: Bldg. AB Floor El. 659'-6" Room, Area A-34, Col. F-11

Manufacturer, Model, Etc. (optional but recommended) N/A

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 U
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
Thread engagement on some anchor bolts is less than one thread exposed from face of nut per Fermi Spec. 3071-226, Rev. K, Section 3.3.5.4(b). See attached "Hand sketch". Card 12-27702 was initiated to resolve this matter. Also, one bolt has a flat round washer instead of a square beveled washer (see photo DSC01090).
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
No corrosion or oxidation for the anchor bolts.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Visible hairline cracks in the concrete inside the cabinet, within 2" of anchor bolt and also in front of cabinet. See attached "Hand sketch". The cracks are "Shrinkage" cracks and no impact on anchor capacity (see photo DSC01092).
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 anchorage configuration verification is required.)
Anchorage configuration is consistent with the following documents: I-2525-25, Rev. E (No postings). Calc. No. DC-1073, Rev. A (No postings). Calc. No. DC-5634 Vol. I, Rev. 0 (Two postings not applicable). TDEC 3526 "Seismic Qualification" Dated 12/11/1978 (No postings) and Calc. No. DC-5157 Vol. I, Rev. C (Five postings not applicable). (see photos DSC01158, 01159, 01162 & 01164)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Item (2) - Some anchor bolts do not have full thread engagement per Fermi spec. 3071-226. & one bolt has a round washer instead of beveled washer. See attached "Hand sketch". CARD 12-27702 was initiated to resolve both issues (see photo DSC01090).

¹ Enter the equipment class name from Appendix B: Classes of Equipment

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P087 Equip. Class¹ 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Enclosed cabinet protects soft targets. No concern with impact.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
No ceiling tiles. Overhead equipment and distribution systems are adequately supported. Light fixture is at least one foot away and securely attached to the ceiling. Nearby block walls are seismically reinforced.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Attached cables/raceways have adequate flexibility. No concern for damage due to 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 potential adverse seismic interaction effects. The adjacent cabinets are bolted together side by side. No possibility of banging into each other (see photos DSC01099).

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
No loose or missing fasteners for mounted components inside the cabinet and the front cabinet. No missing fasteners on panel door or hinges.

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: Y (N) U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P087 Equip. Class¹ 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2

Comments (Additional pages may be added as necessary)

None

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1 : Rohit Vadhar *Rohit Vadhar* Date: 10-4-2012

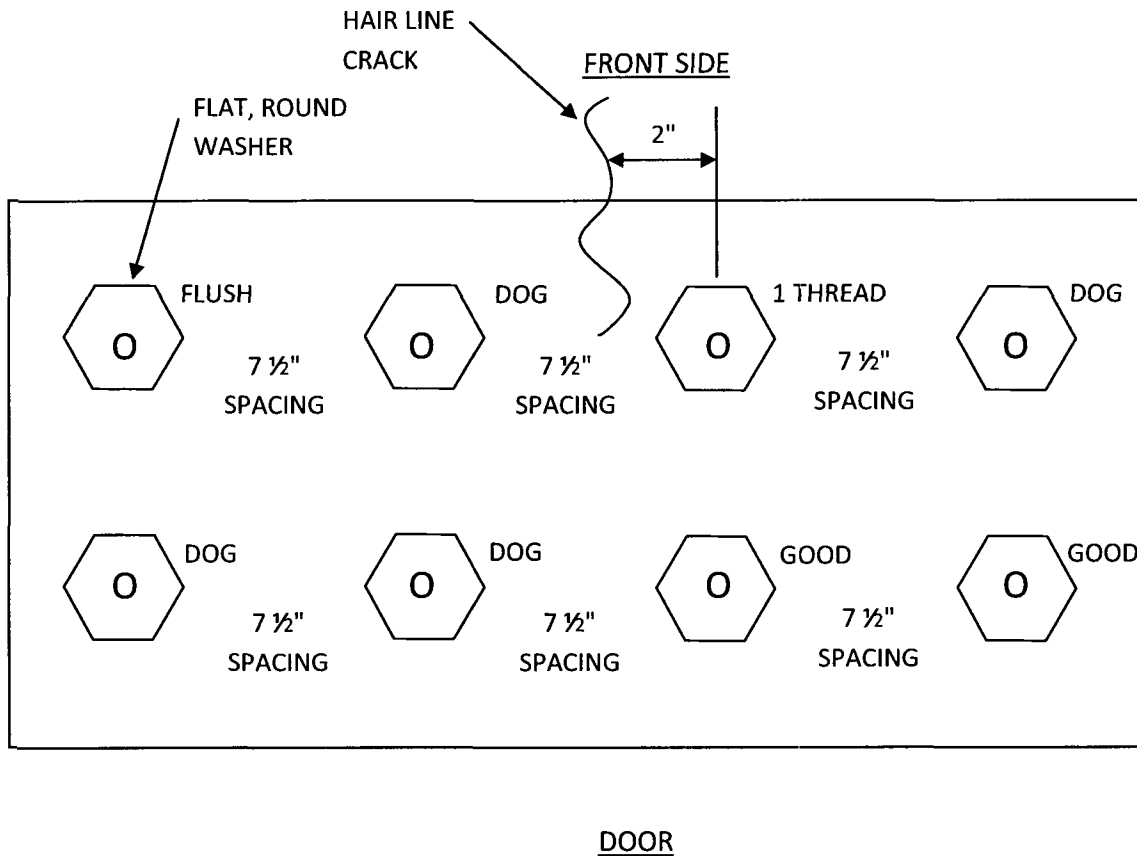
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2 : Joseph M LaVere *Joseph M LaVere* Date: 10/04/2012

Seismic Walkdown "Hand Sketch"

Equipment ID No. H21P087 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2



Notes: Bolt letter 'O' indicates 8 1/2" Long Bolt.

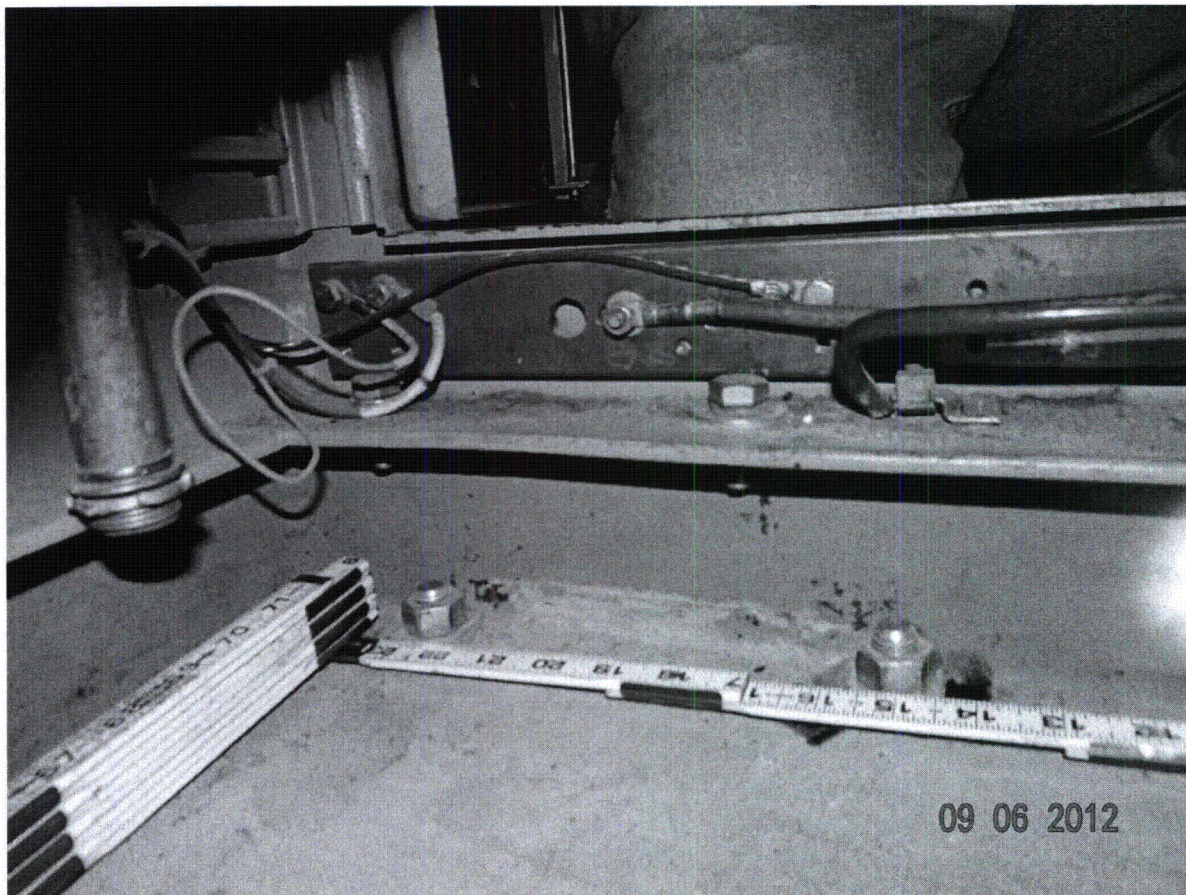
1 Thread Engagement – Acceptable Condition

Dog and Flush Engagement – Unacceptable Condition

Seismic Walkdown Pictures

Equipment ID No. H21P087 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2



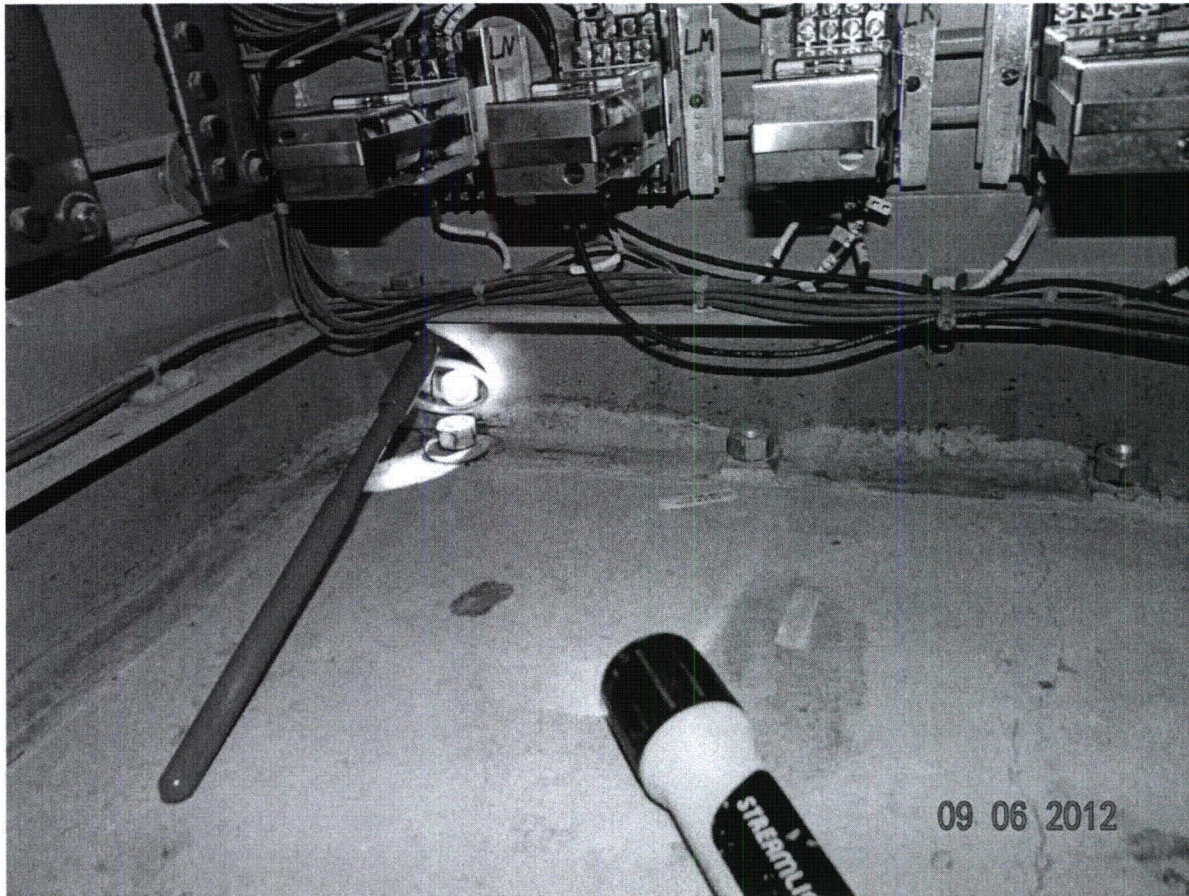
(DSC01096)

"Bolt Spacing"

Seismic Walkdown Pictures

Equipment ID No. H21P087 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2



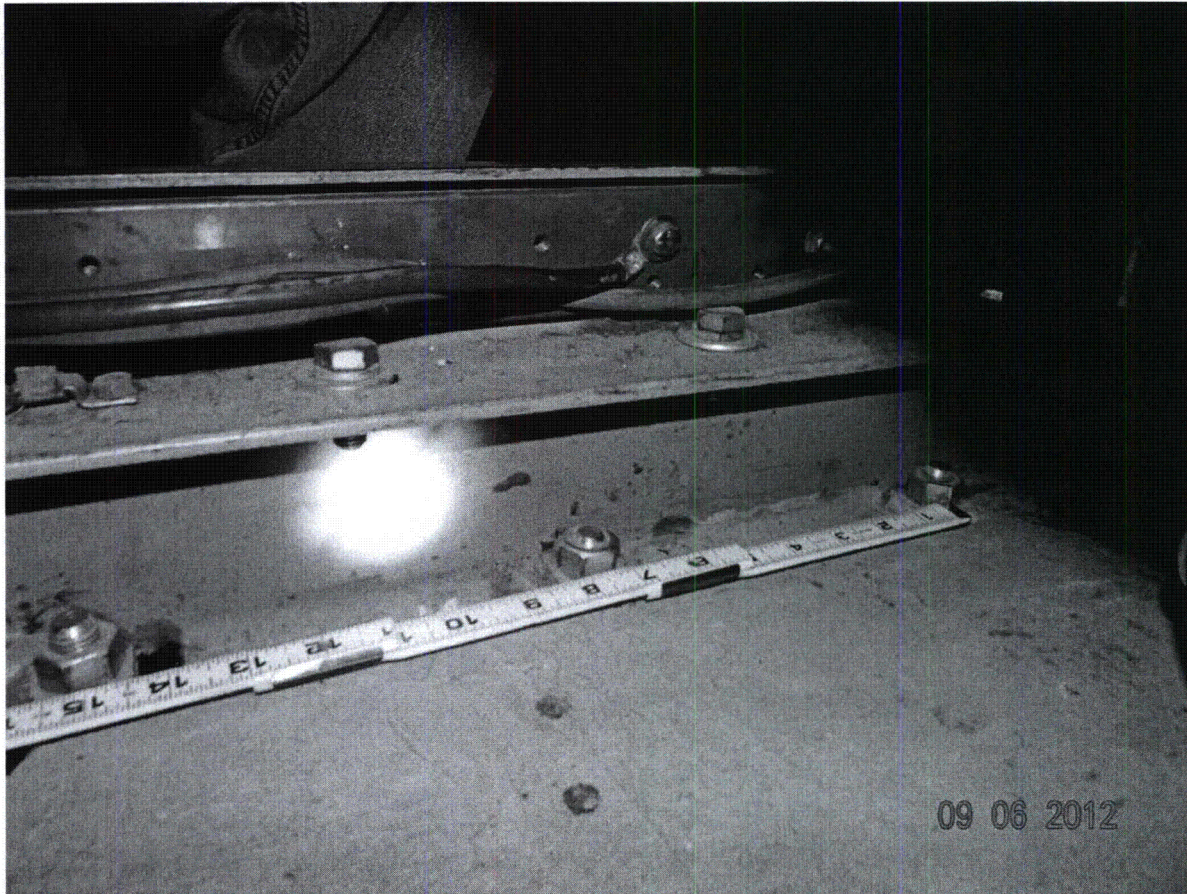
(DSC01090)

"Bolt Spacing and flat Round washer"

Seismic Walkdown Pictures

Equipment ID No. H21P087 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2



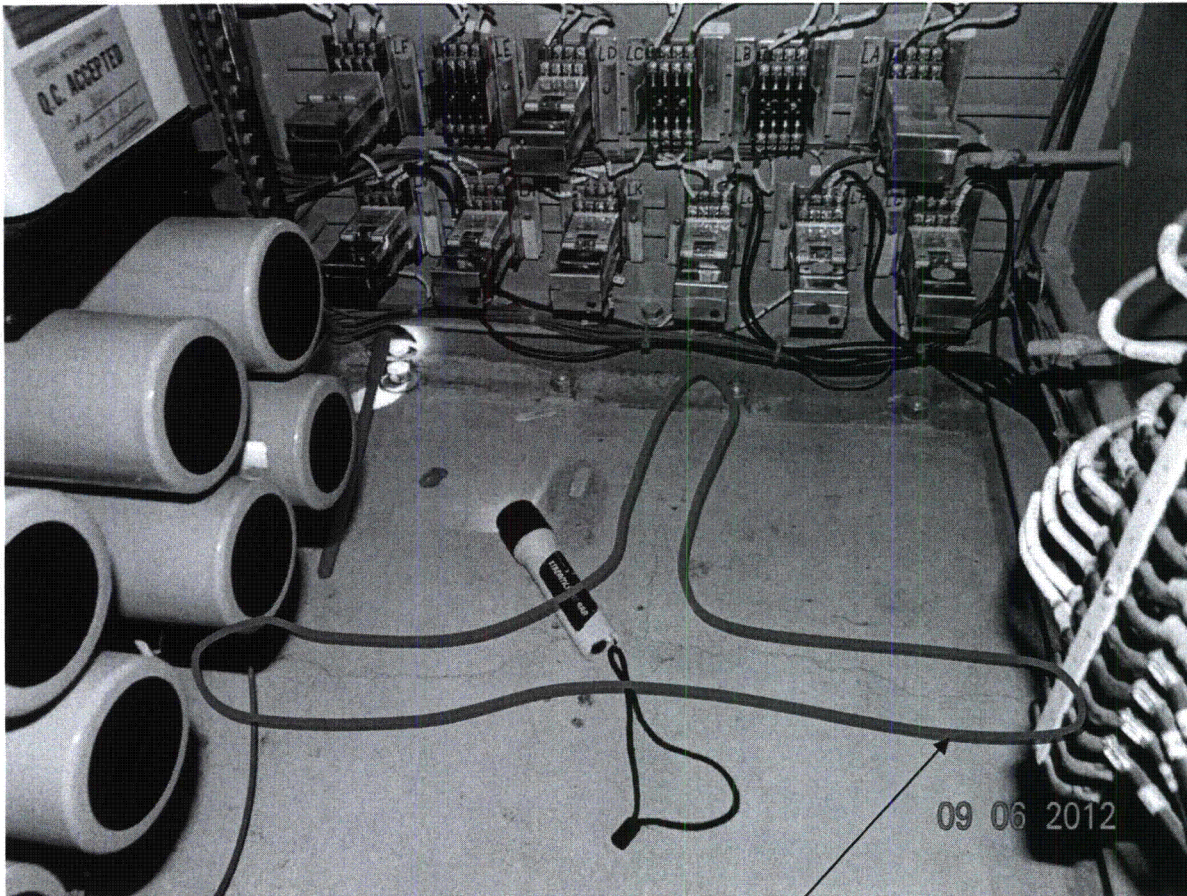
(DSC01097)

"Bolt Spacing"

Seismic Walkdown Pictures

Equipment ID No. H21P087 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2

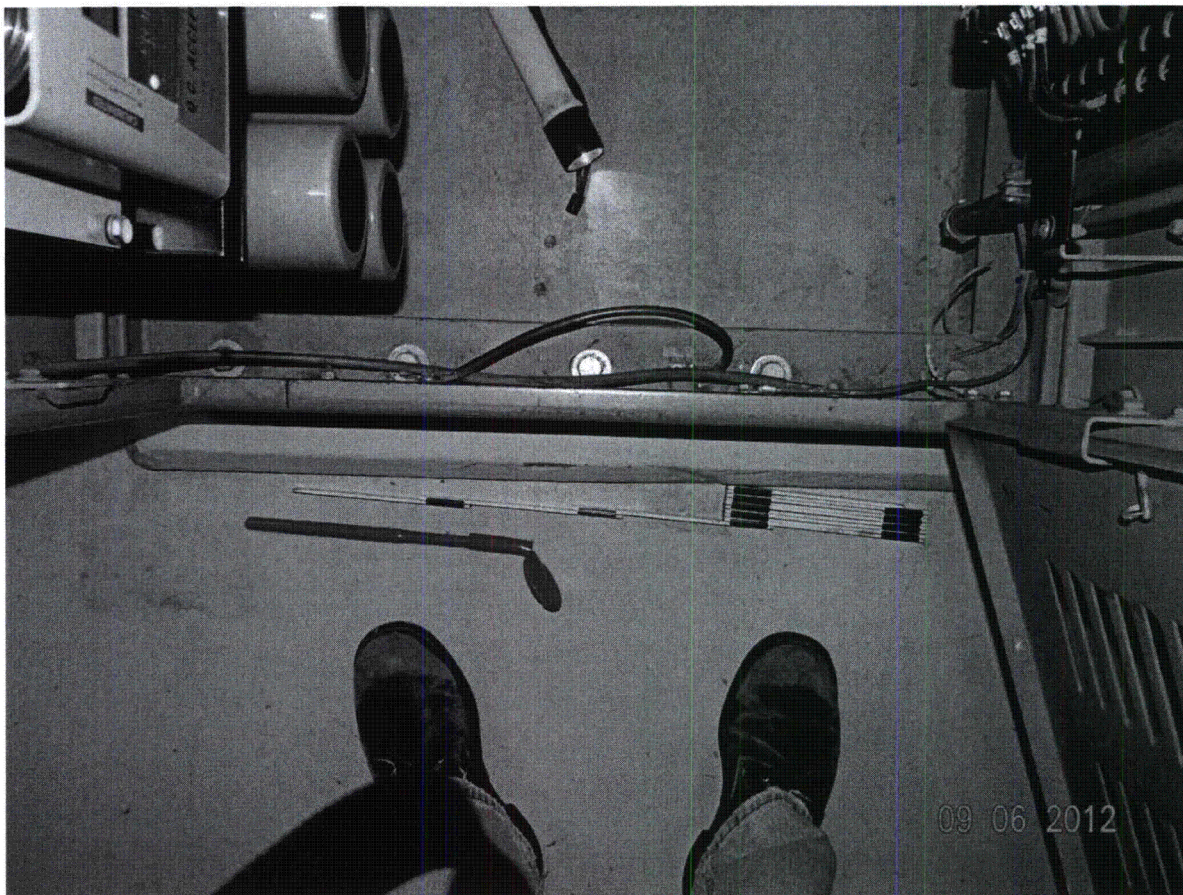


(DSC01092)
"Hairline Cracks"

Seismic Walkdown Pictures

Equipment ID No. H21P087 Equipment Class: 18, Instrument Racks

Equipment Description RPS Trip Unit Cabinet B2, Div 2



(DSC01099)

"Bolt Connection between Angle and Channel"

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 1 of 3
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P100 Equip. Class¹ 18, Instrument Racks

Equipment Description Remote Shutdown Panel

Location: Bldg. AB Floor El. 613'-6" Room, Area B-11, Col. F-10

Manufacturer, Model, Etc. (optional but recommended) Reliance Electric Company

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
Welded anchorage. No bent, broken or missing hardware.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Exterior welds painted. Interior plug welds at back of cabinet have mild surface oxidation and are acceptable.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Concrete around embedded plates is free of cracks (see Photo DSCN 0294).
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 conforms to Dwg. I-2798-03, Rev. B (No applicable postings).
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Welds on front side visible, about 6" at five locations. Five plug welds at rear of cabinet at 22" centers (see Photo H21P100 (2)). The welded anchorage is free of adverse seismic conditions.

¹ Enter the equipment class name from Appendix B: Classes of Equipment

JMc

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P100 Equip. Class¹ 18. Instrument Racks

Equipment Description Remote Shutdown Panel

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Transformers are seismically anchored to the wall or floor. Cable trays are mounted on seismic supports (see Photo DSCN 0301).
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
Lights are supported by cable and chains or unistrut brackets (see Photo DSCN 0318). There are no block walls close by.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Top entry cables are looped to provide flexibility (see Photo DSCN 0300).
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
Adjacent switchgear cabinets, 72B-2A and R3101S001, are welded front and rear to embedded plates. Therefore, separation is acceptable. Panel H21P628 is approximately 10" away. Per EPRI guidance for rigidly supported equipment, only 2" of separation is required. Therefore, 10" of seismic separation is acceptable.

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
Back of cabinet was opened, interior components were secure and no adverse conditions were identified.

JML

NJPR-12-0043

Seismic Walkdown Checklist (SWC)

Equipment ID No. H2IP100 Equip. Class B-INSTRUMENT RACK

Equipment Description REMOTE SHUTDOWN PANEL

Comments (Additional pages may be added as necessary)

*STAIN / WATER MARK ON FLOOR - RIGHT END - NO EVIDENCE OF
PROBLEMS INSIDE OF CABINET. CORRECTIVE ACTION NOT REQUIRED.*

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: David G. Dickson Date: 08/14/2012

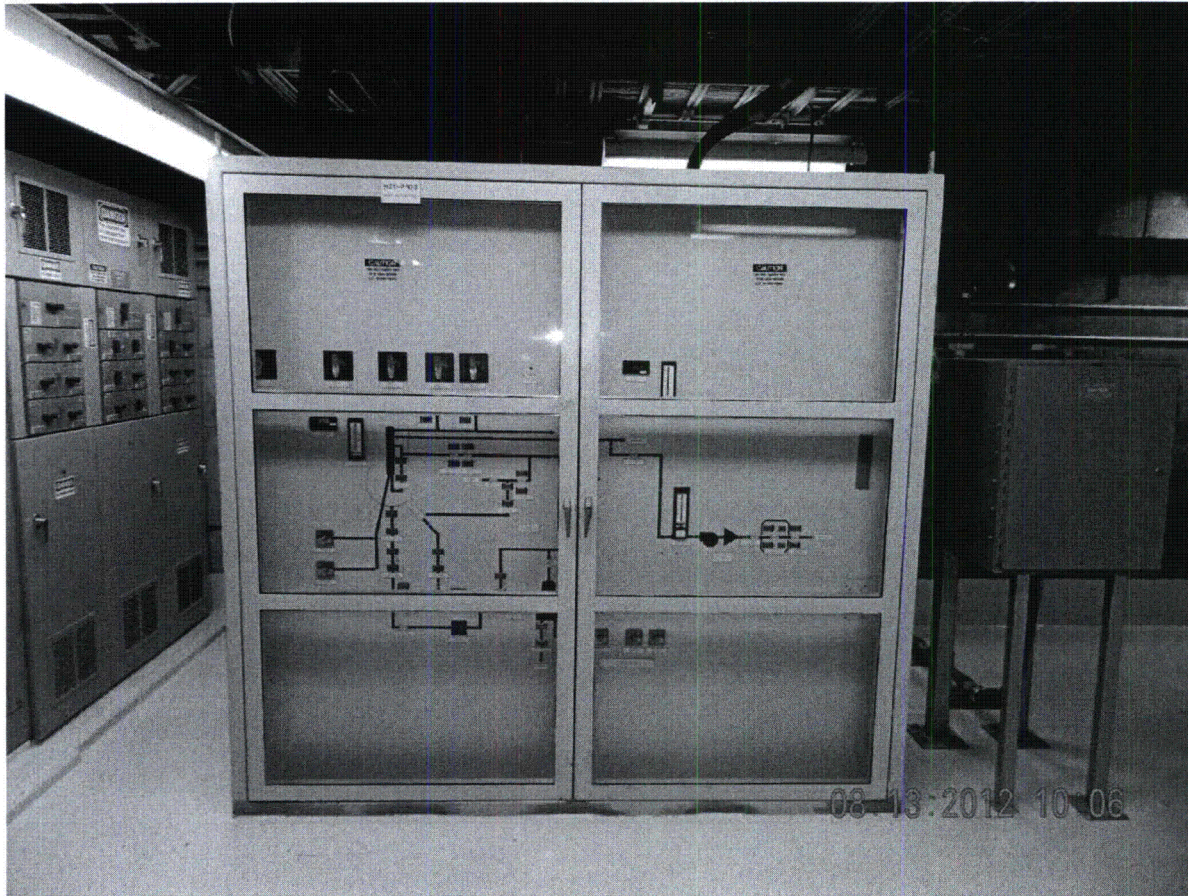
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: Joseph M. Falbre Date: 08/14/2012

Seismic Walkdown Pictures

Equipment ID No. H21P100 Equipment Class: 18, Instrument Rack

Equipment Description Remote Shutdown Panel



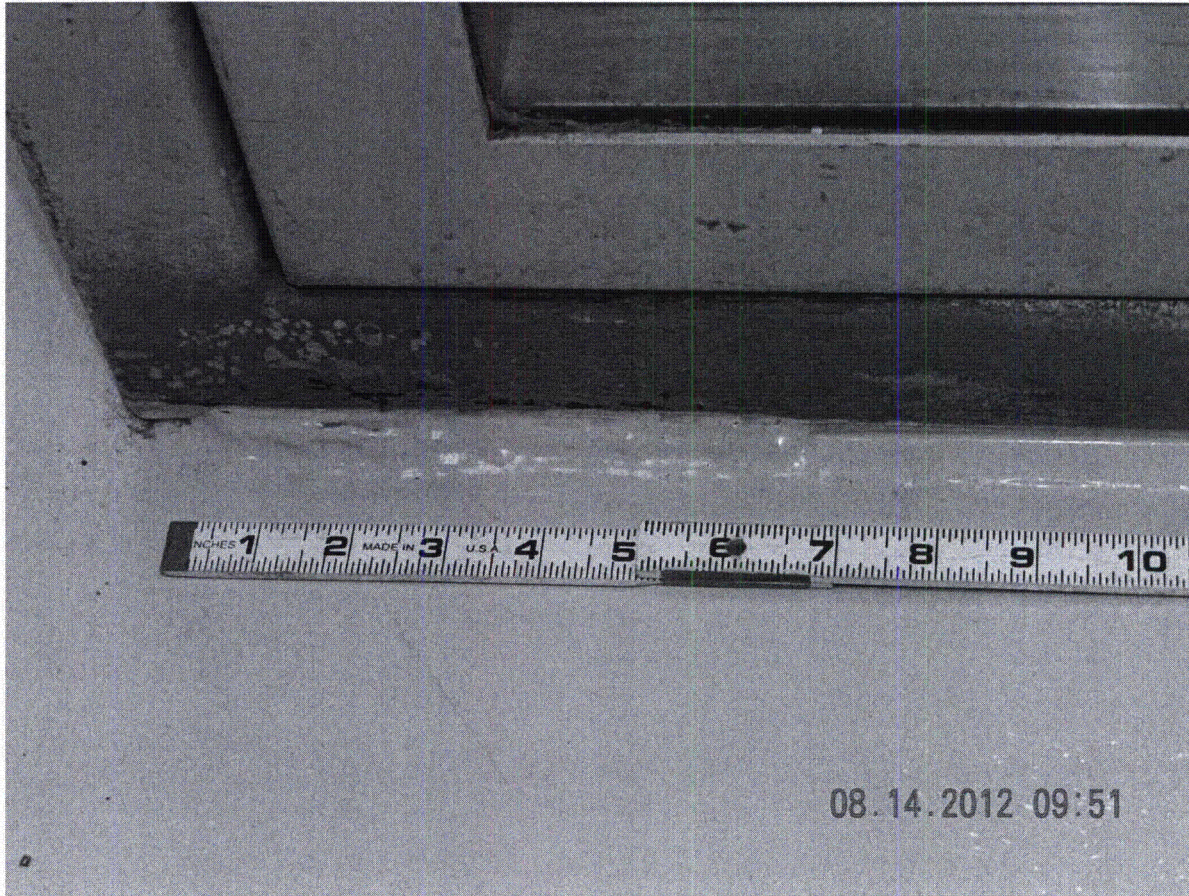
(Photo H21P100 (2))

Welds along Front Bottom Edge of Panel

Seismic Walkdown Pictures

Equipment ID No. H21P100 Equipment Class: 18, Instrument Rack

Equipment Description Remote Shutdown Panel



(Photo DSCN 0294)

Concrete Floor Adjacent to Welds to Embedded Plates

Seismic Walkdown Pictures

Equipment ID No. H21P100 Equipment Class: 18, Instrument Rack

Equipment Description Remote Shutdown Panel



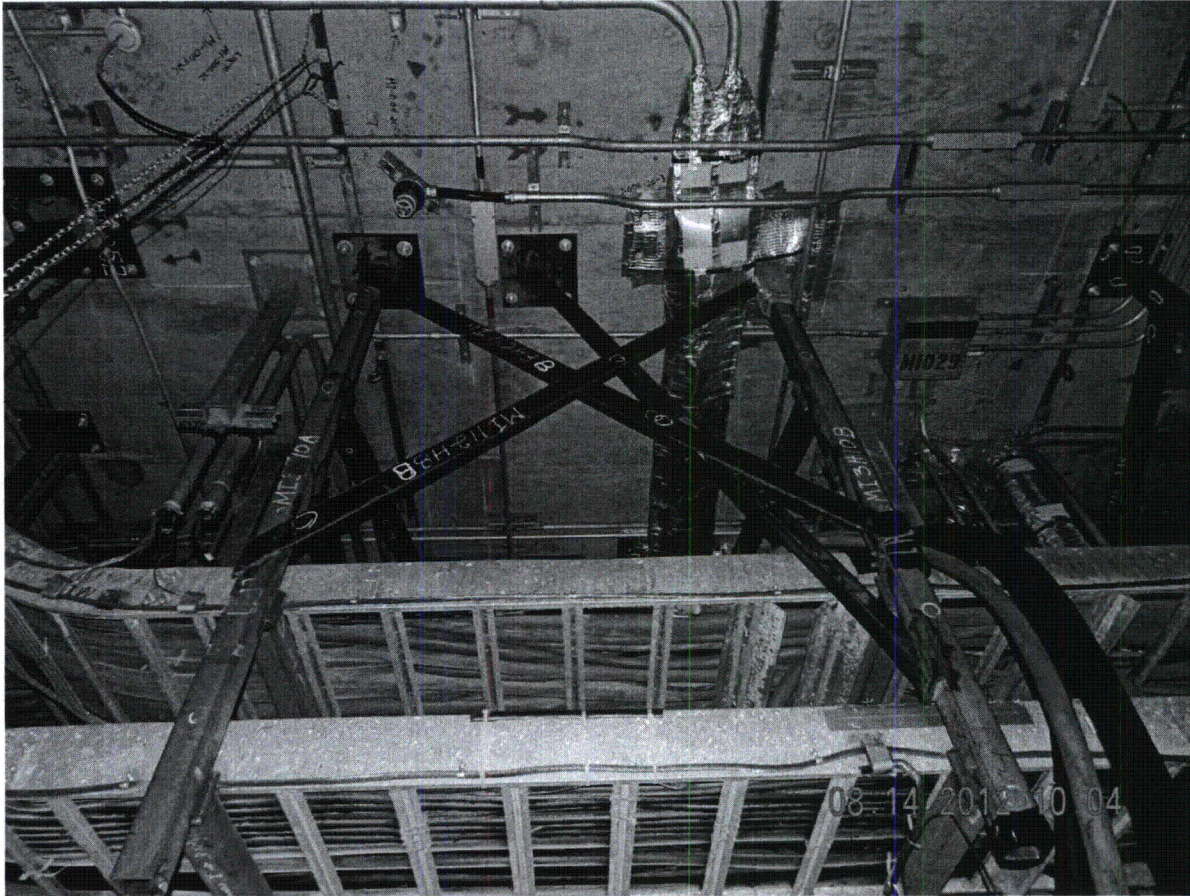
(Photo DSCN 0300)

Electrical Cables above Panel

Seismic Walkdown Pictures

Equipment ID No. H21P100 Equipment Class: 18, Instrument Rack

Equipment Description Remote Shutdown Panel



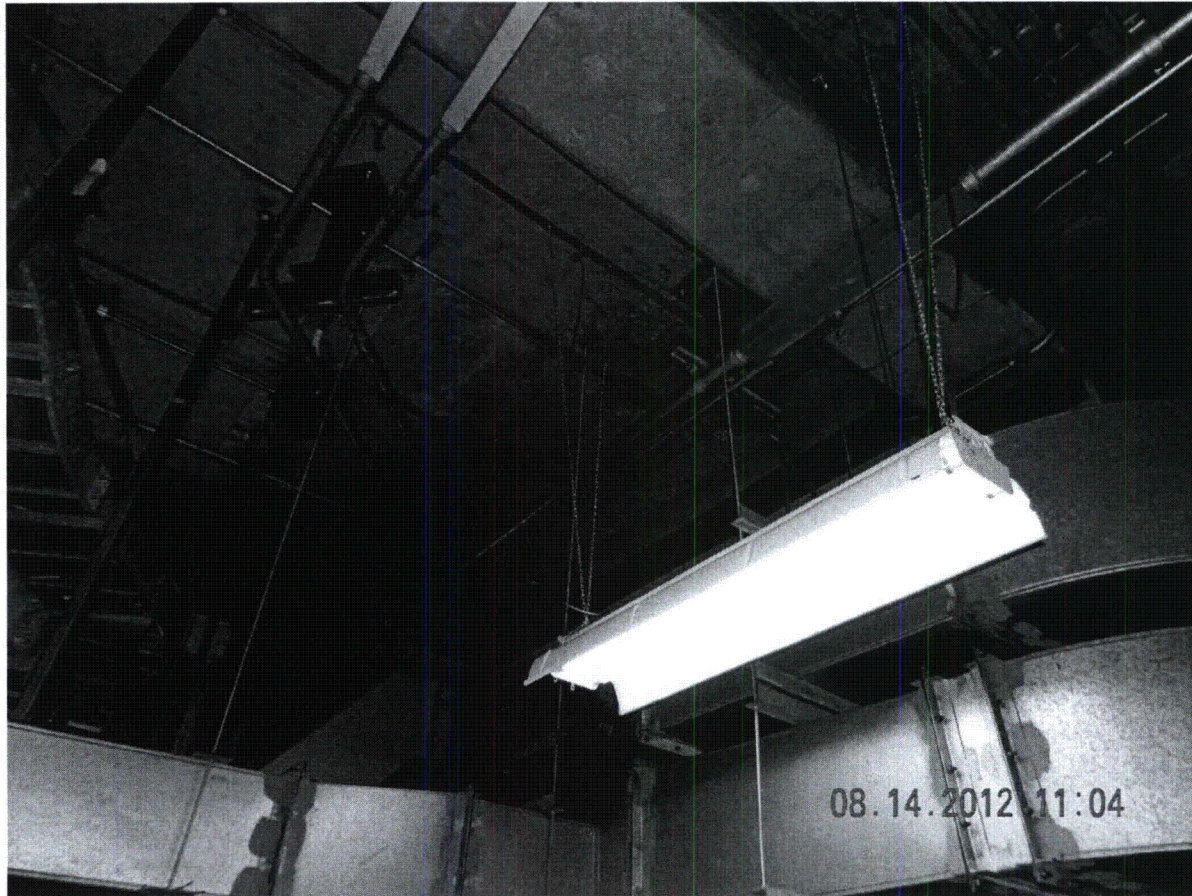
(Photo DSCN 0301)

Cable Tray Supports

Seismic Walkdown Pictures

Equipment ID No. H21P100 Equipment Class: 18, Instrument Rack

Equipment Description Remote Shutdown Panel



(Photo DSCN 0318)

Supports for Area Lighting

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P296A Equip. Class¹ 20- Instrumentation and Control Panel

Equipment Description Control Center HVAC Div 1 Instrument Rack

Location: Bldg. AB Floor El. 677'-6" Room, Area HVAC Equipment Rm. (B-27A) Col. H-15

Manufacturer, Model, Etc. (optional but recommended) N/A

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 U N/A
All welding of cabinet to channel base are visible. The bolts on the floor are enclosed by a channel that is toed-down toward the floor and detailed as grouted solid, therefore verification of the anchorage is not possible
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
All welds are complete. No bent, broken, missing or loose hardware was observed, although anchor bolts to floor are enclosed in steel and not observable. (SEE PICTURE DSCN0466) ~ DJK 10/11/12
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
No corrosion observed
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
No cracks or concrete degradation observed (SEE PICTURE DSCN0470) ~ DJK 10/11/12
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 anchorage configuration verification is required.)
Welds are in accordance with drawing I-2612-77,* and DCN - DSN 0760, Rev G. CARD 12-26990 has been written to get drawing I-2612-77 revised. Anchor enclosed/unverifiable by design.* (SEE PICTURE DSCN0466) ~ DJK 10/11/12
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
No adverse seismic conditions were observed. Although the anchor bolts to the floor are enclosed by a channel, the shim plates & welds at anchor bolt locations indicate that the as-built matches the design, and there is no reason otherwise to suspect adverse seismic condition.

JML

¹ Enter the equipment class name from Appendix B: Classes of Equipment

* Dwg. I-2612-77, Rev G has NO POSTINGS ~ DJK 10/12/12

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P296A Equip. Class¹ 20- Instrumentation and Control Panel

Equipment Description Control Center HVAC Div 1 Instrument Rack

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Area is congested, but all equipment is seismically restrained or anchored. Pipe conduit, tubing and duct are all supported by robust structures and supports.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
No ceiling tiles or block walls are in the area. Lights are supported by chains with redundant wire cables. All overhead equipment is robustly supported and is not likely to collapse onto the equipment.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
All 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
Equipment is free from potential 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
No adverse seismic conditions were observed.

JML

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: Y N U

JMc
09/12/12

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21-P276A Equip. Class¹ 20-IFC PANEL

Equipment Description CONTROL CENTER - HVAC

Comments (Additional pages may be added as necessary)

NONE

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: David G. Dickson Date: 8/23/2012

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: Joseph M. Pallone Date: 8/23/2012

Seismic Walkdown Pictures

Equipment ID No. H21P269A Equipment Class: 20, Instrumentation and Control Panel

Equipment Description Control Center HVAC Div 1 Instrument Rack



(DSCN0465)

Seismic Walkdown Pictures

Equipment ID No. H21P269A Equipment Class: 20, Instrumentation and Control Panel

Equipment Description Control Center HVAC Div 1 Instrument Rack

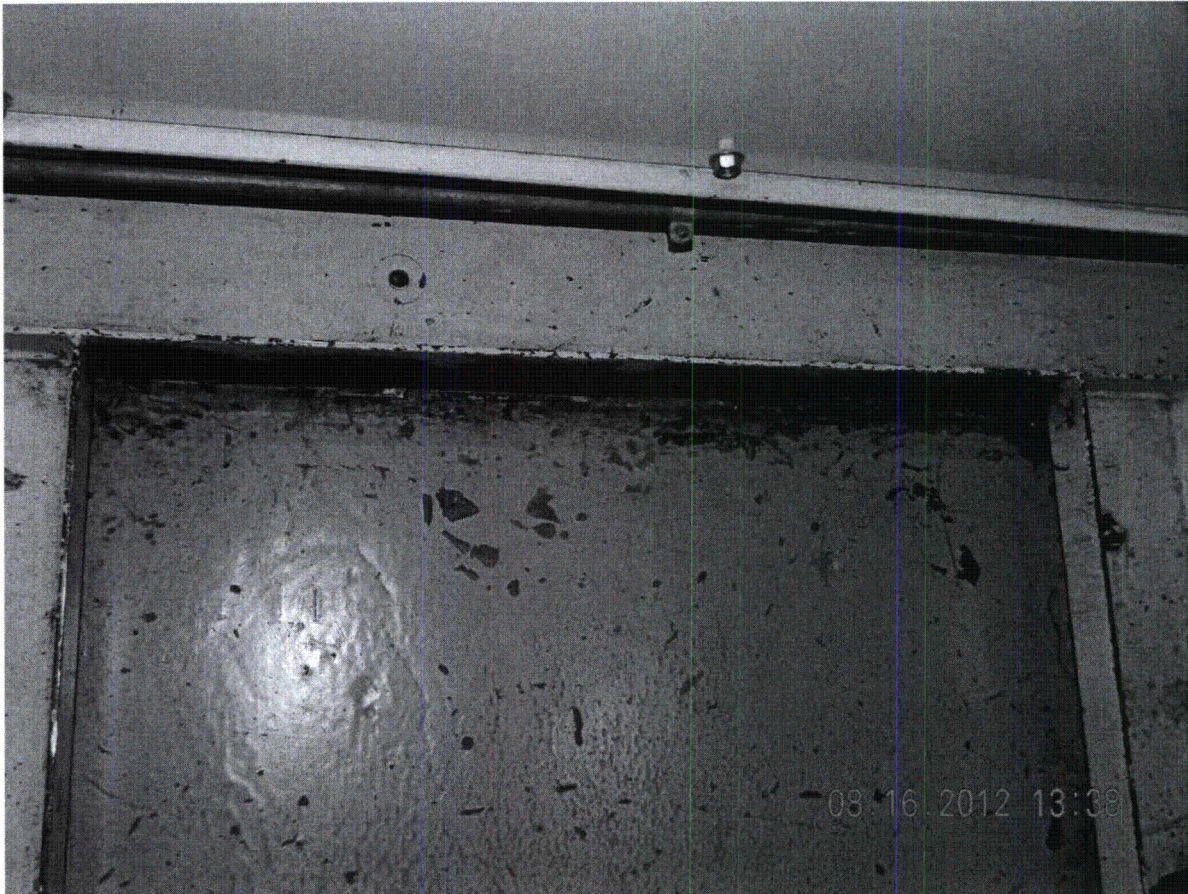


(DSCN0466)

Seismic Walkdown Pictures

Equipment ID No. H21P269A Equipment Class: 20, Instrumentation and Control Panel

Equipment Description Control Center HVAC Div 1 Instrument Rack



(DSCN0470)

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P420 Equip. Class¹ 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves

Location: Bldg. RB Floor El. 540'-0" Room, Area HPCI Room (B-01), Col. H-11

Manufacturer, Model, Etc. (optional but recommended) N/A

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 U

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
All four anchors present and secure.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
No corrosion. See picture 3.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
No cracks. See picture 3.

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.)
Configuration is correct must check anchor diameter. A 3/4" bolt head was measured and per AISC 9th Edition, this is for a 1/2" Ø bolt. Drawing I-2525-25 Section A-A calls for a 1/2" Ø bolt. Bolt size is verified as correct. Dwg. I-2525-25, Rev. G has no postings ~ DSK 10/12/12

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

¹ Enter the equipment class name from Appendix B: Classes of Equipment

MPS 10/9/12

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P420 Equip. Class¹ 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Nearby equipment is anchored and/or is shielded by an overhead concrete stairway. See picture 1.
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
All conduit/pipe nearby are structurally stable and restrained from movement. See pictures 1 & 5.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
The attached lines have adequate flexibility. See pictures 2, 4 & 6.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P420 Equip. Class¹ 18-Instrument RACKS

Equipment Description Instrumentation Rack for HPCI Div. 2 Turb and Pilot Valves

Comments (Additional pages may be added as necessary)

- N/A -

JAM
10/10/12

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1 : Michael P. Sasso Date: 8/7/12

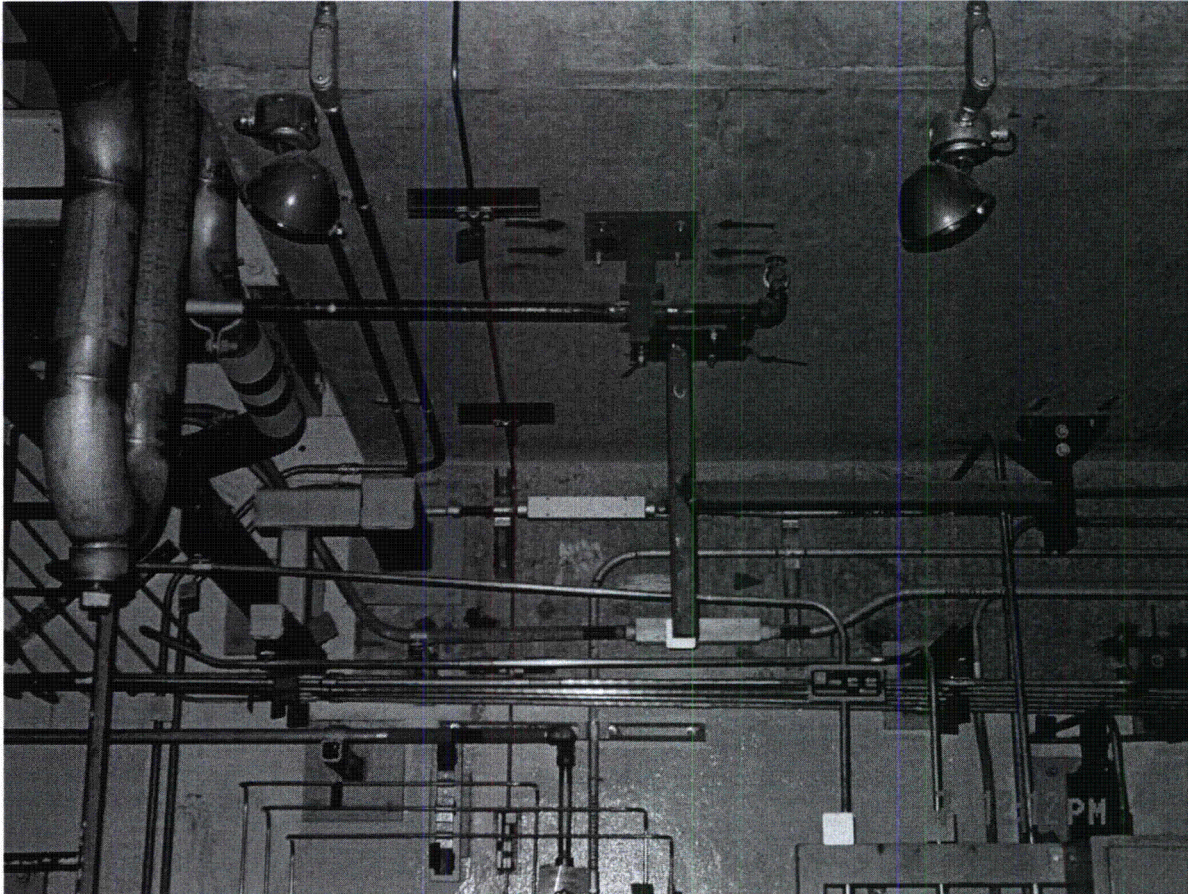
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2 : Scott Bauen Date: 8/7/12

Seismic Walkdown Pictures

Equipment ID No. H21P420 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves



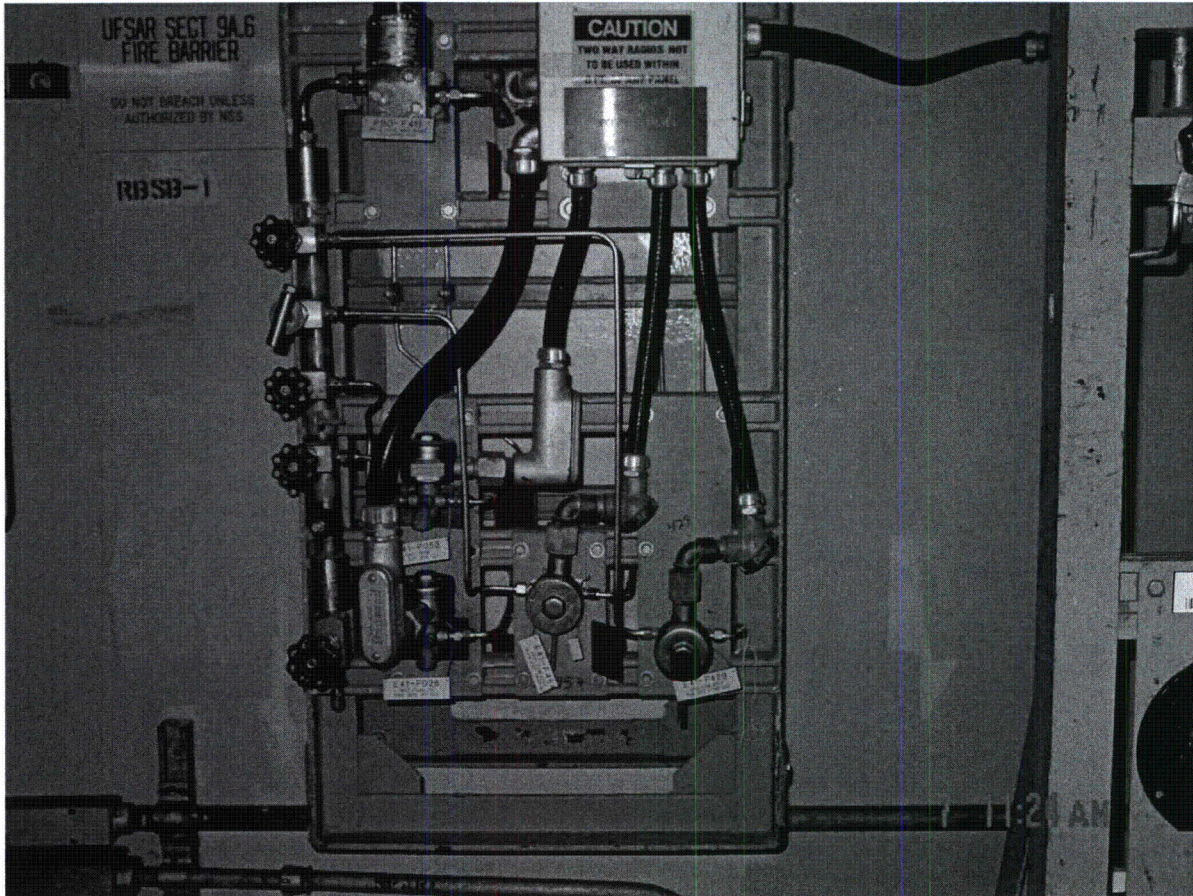
Overhead Lights, Piping and Conduits above Instrument Rack

(Picture 1)

Seismic Walkdown Pictures

Equipment ID No. H21P420 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves



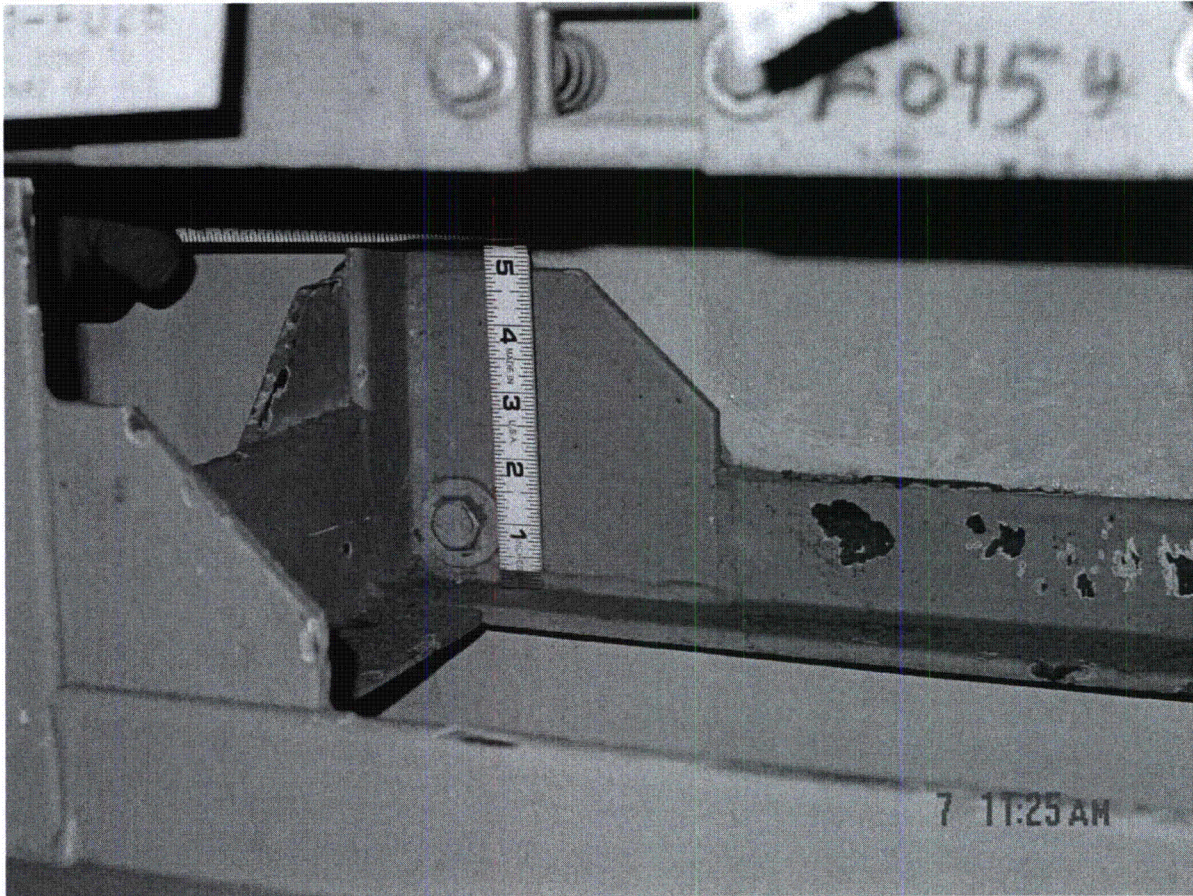
General View of Instrument Rack with Attached Flexible Conduit Lines

(Picture 2)

Seismic Walkdown Pictures

Equipment ID No. H21P420 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves



Bolt Configuration for Instrument Rack Framing to Concrete Wall

(Picture 3)

Seismic Walkdown Pictures

Equipment ID No. H21P420 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves



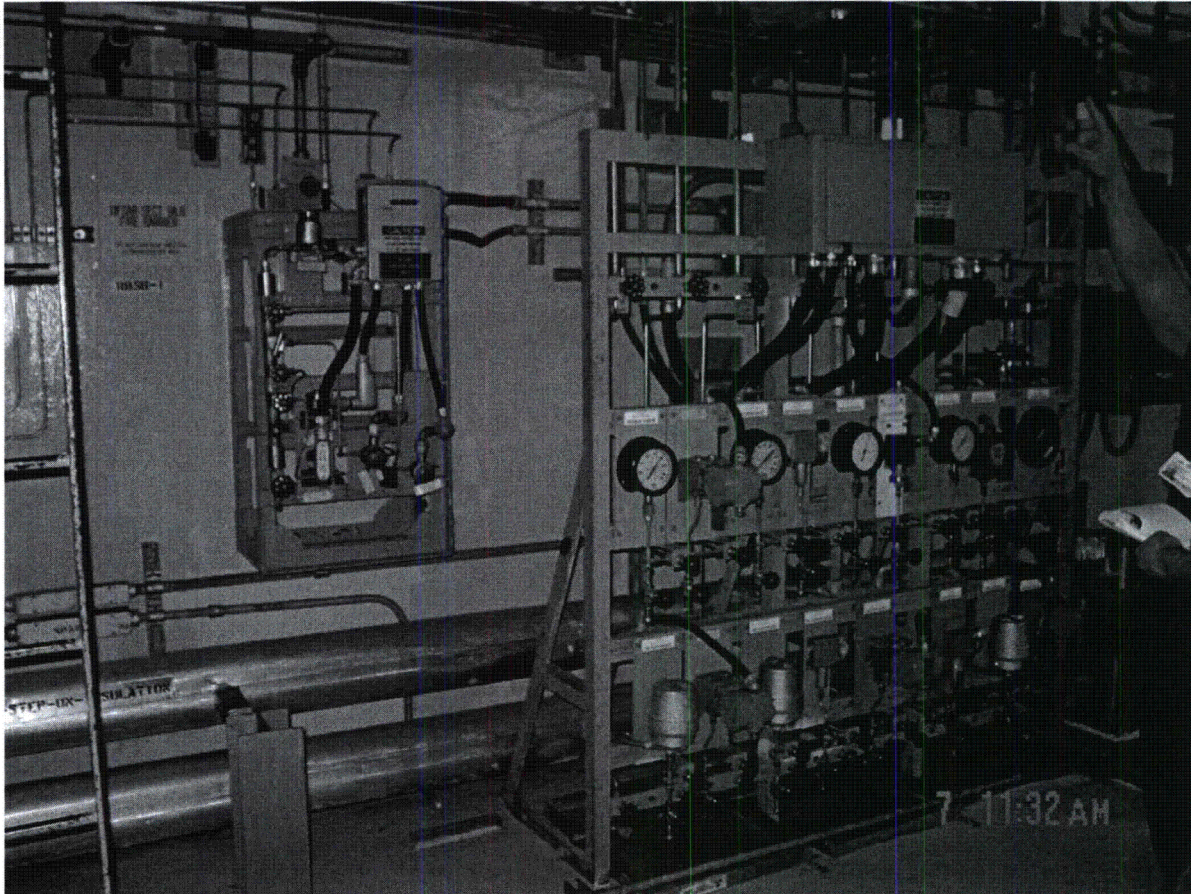
Attached Flexible Conduit Lines on Instrument Rack

(Picture 4)

Seismic Walkdown Pictures

Equipment ID No. H21P420 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves



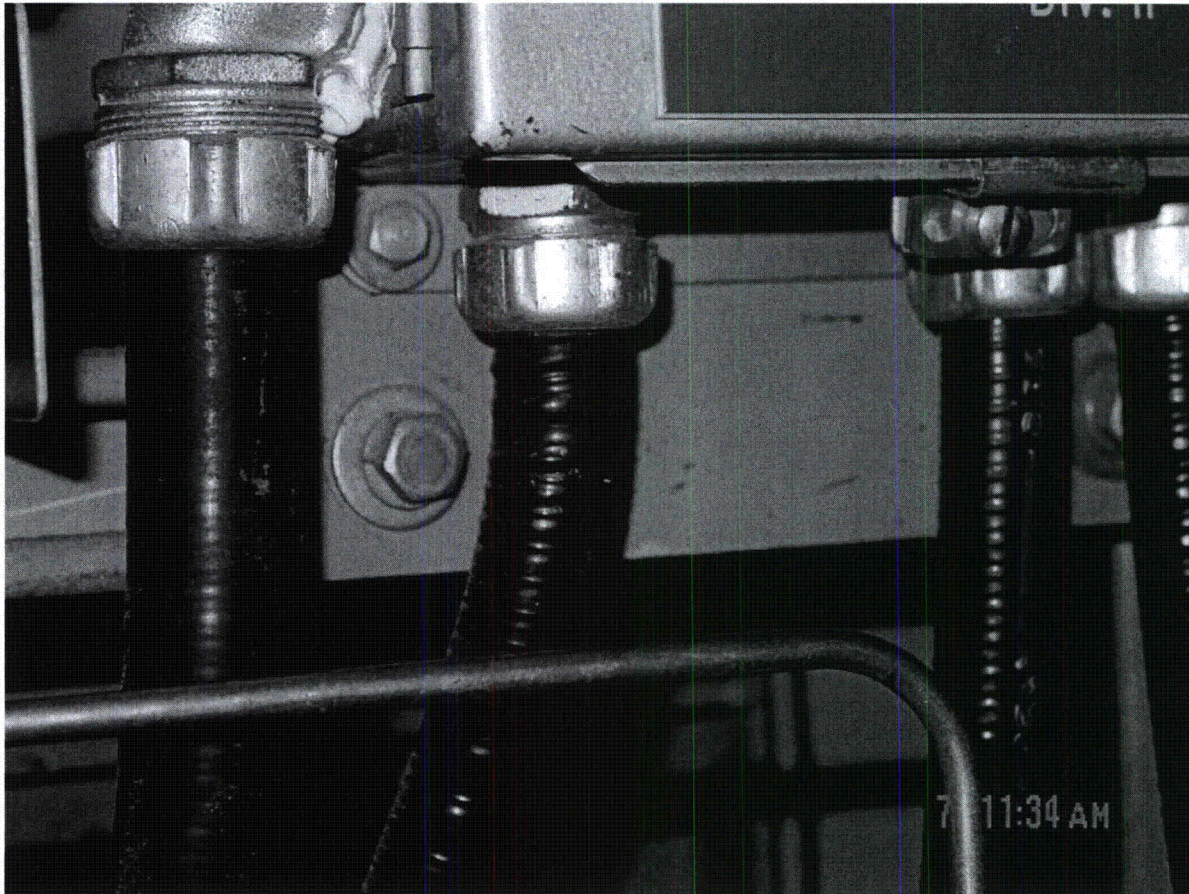
General View of Equipment around the Wall Mounted Instrument Rack

(Picture 5)

Seismic Walkdown Pictures

Equipment ID No. H21P420 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack for HPCI Div 2 Turb. and Pilot Valves



Attached Flexible Conduit Lines on the Instrument Rack

(Picture 6)

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 1 of 3
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P448 Equip. Class¹ 18, Instrument Racks

Equipment Description Instrument Rack – EECW System

Location: Bldg. RB Floor El. 613'-6" Room, Area A-17, Col. D-10

Manufacturer, Model, Etc. (optional but recommended) York, N/A.

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 U

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
No concerns. All bolts are present and in good condition.

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
No visible cracks in the concrete identified.

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.)
Anchor configuration is consistent with Dwg. I-2525-25, Rev. E. (See Photos DSC00275, 00279, 00280 and 00283) No postings ✓ DJK 10/12/12

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
No potential adverse seismic conditions. The instrument rack is also braced in the back.

¹ Enter the equipment class name from Appendix B: Classes of Equipment

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P448 Equip. Class¹ 18, Instrument Racks

Equipment Description Instrument Rack – EECW System

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Lighting conduit mounted on concrete beam above instrument rack is not secured to concrete at 8'-0" intervals as required by drawings. See Photo DSC00296. CARD 12-26852 was initiated.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
No block walls nearby or ceiling tiles or lights over top of this rack. (See Photos DSC00286 & 00287)
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Attached electrical lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
See Item 7 above and CARD 12-26852.

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
No other seismic conditions identified.

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: Y U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P448 Equip. Class¹ 18, Instrument Racks

Equipment Description Instrument Rack - EECW System

Comments (Additional pages may be added as necessary)

None

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: *R. Smalley* Date: 8/8/12

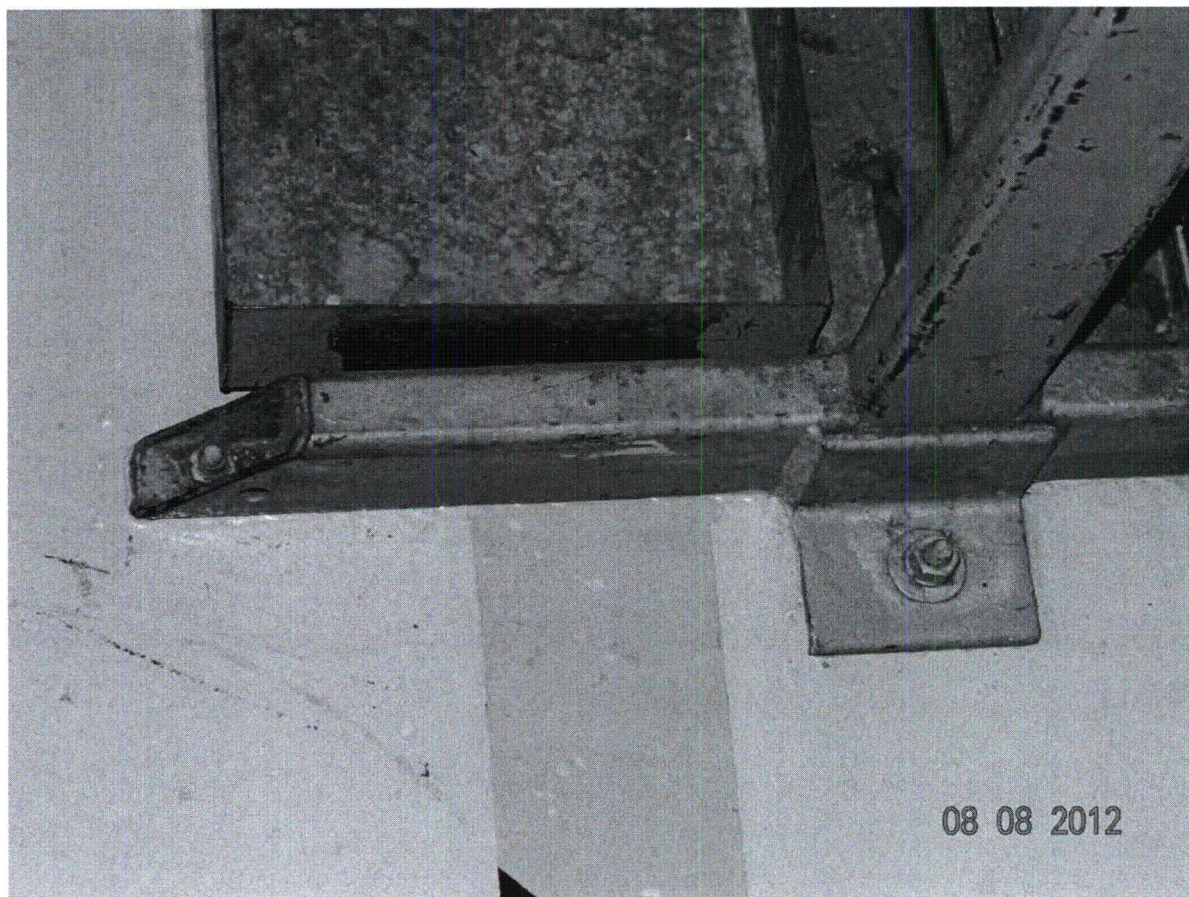
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: *[Signature]* Date: 08/08/12

Seismic Walkdown Pictures

Equipment ID No. H21P448 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack – EECW System



(DSC 00275)

Bolt Configuration

Seismic Walkdown Pictures

Equipment ID No. H21P448 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack – EECW System



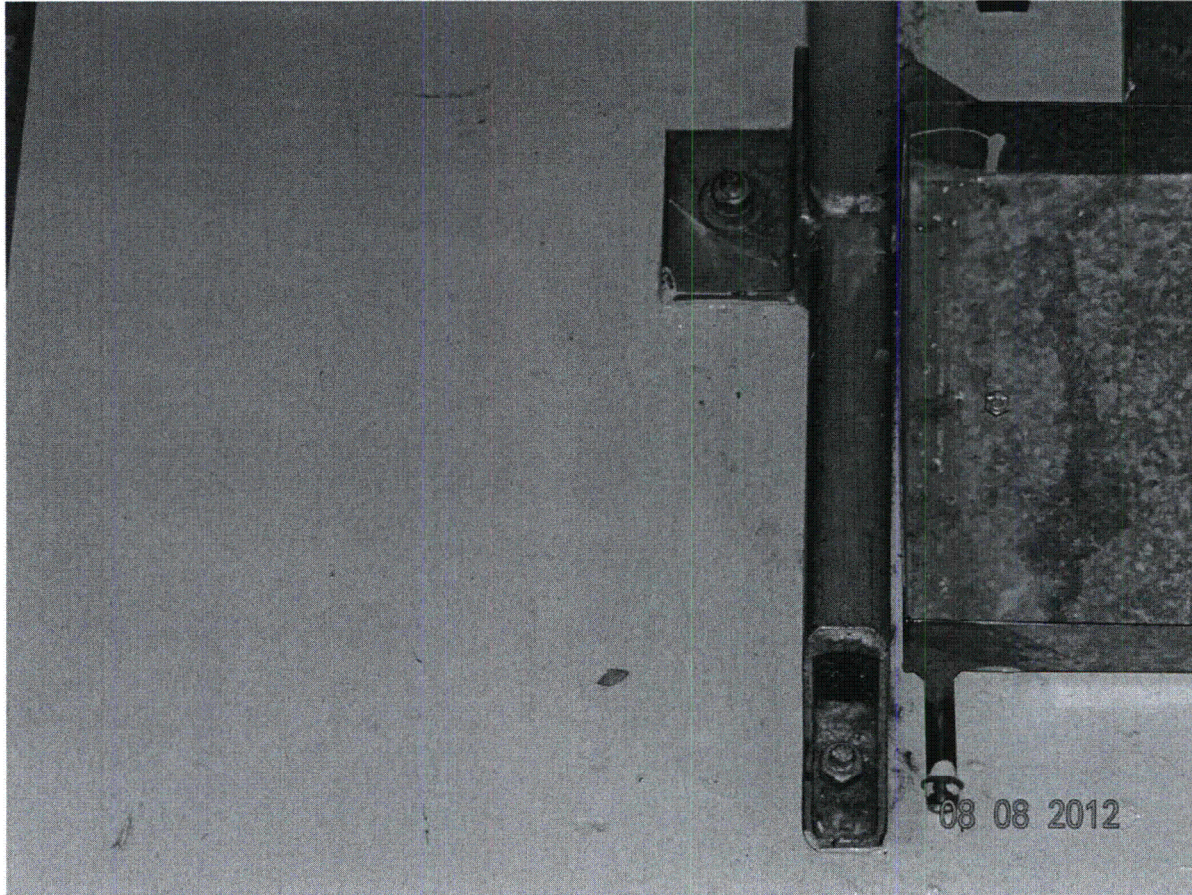
(DSC 00279)

Bolt Configuration

Seismic Walkdown Pictures

Equipment ID No. H21P448 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack – EECW System



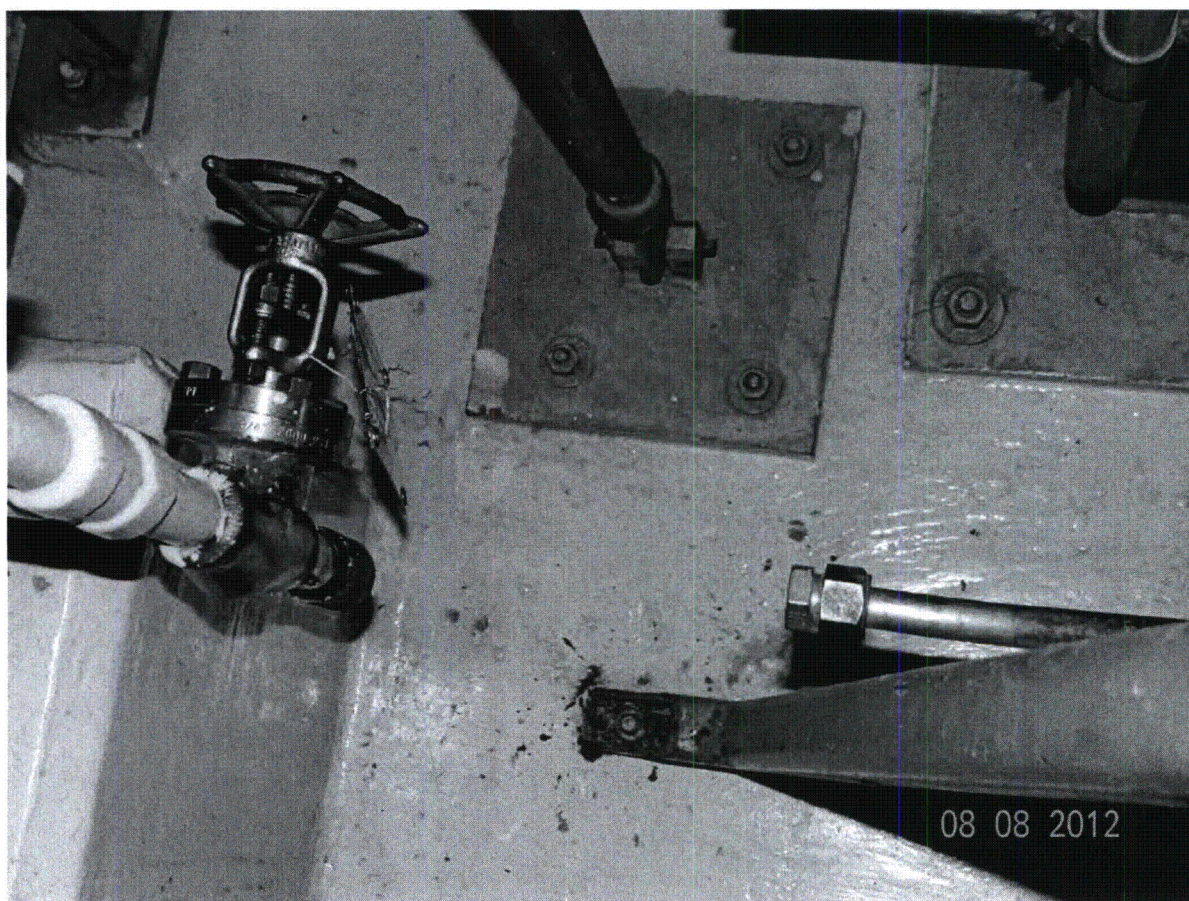
(DSC 00280)

Bolt Configuration

Seismic Walkdown Pictures

Equipment ID No. H21P448 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack – EECW System



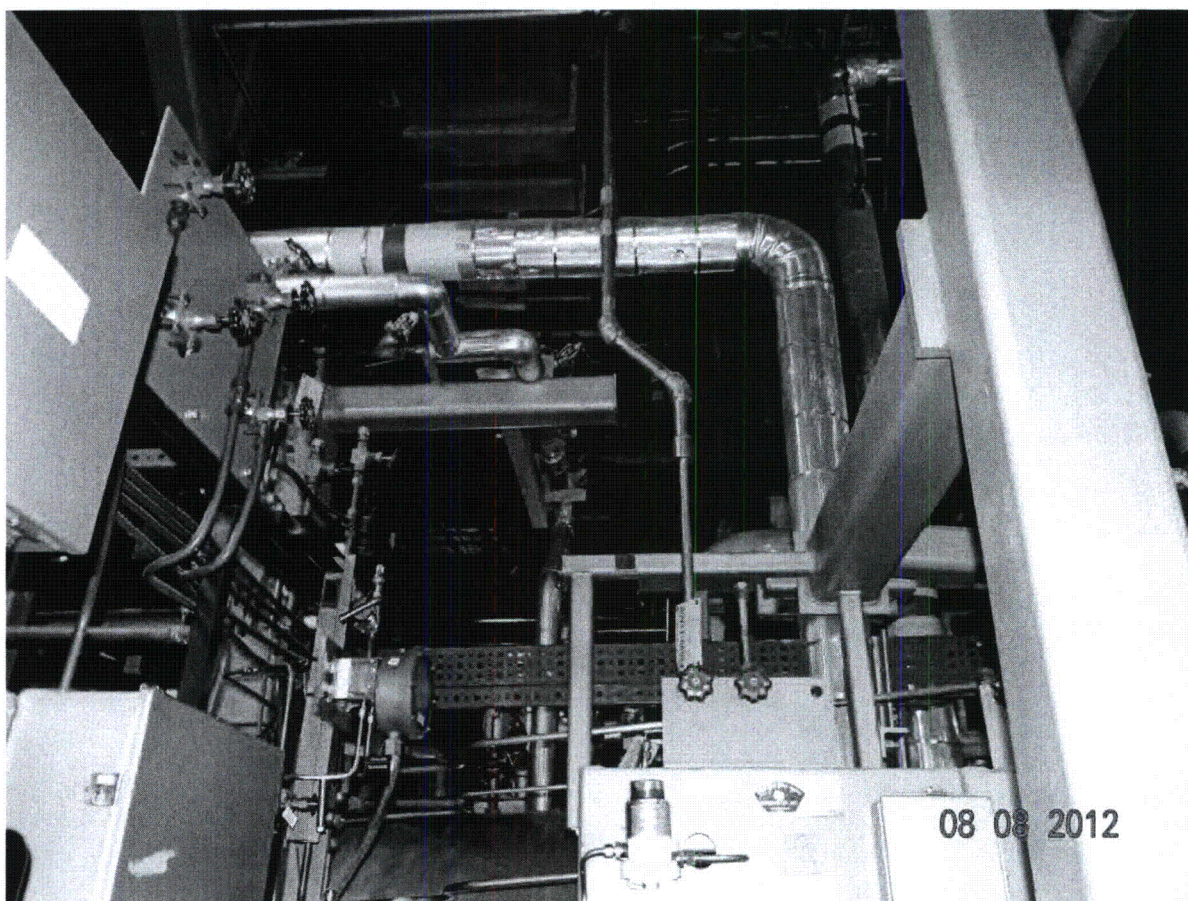
(DSC 00283)

Bolt Configuration

Seismic Walkdown Pictures

Equipment ID No. H21P448 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack – EECW System

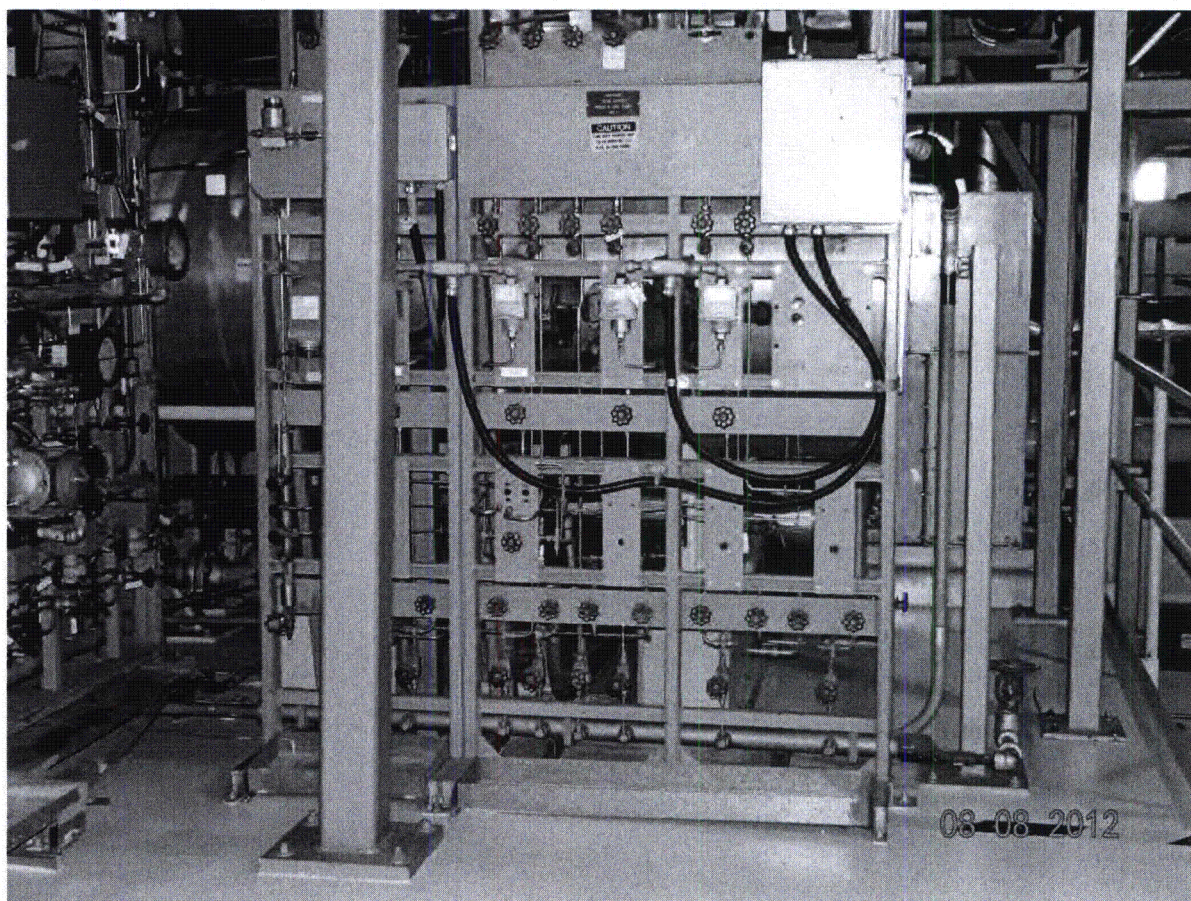


(DSC 00286)

Seismic Walkdown Pictures

Equipment ID No. H21P448 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack – EECW System

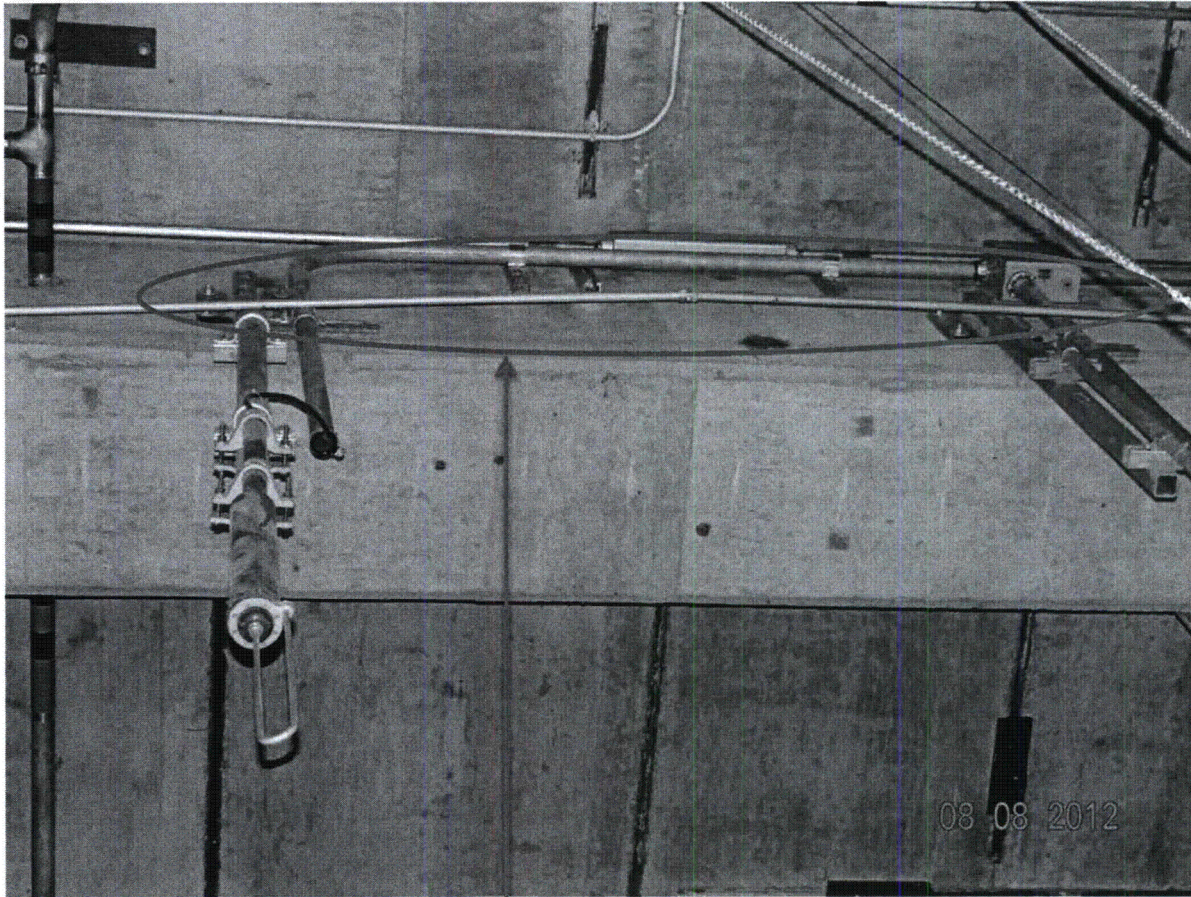


(DSC 00287)

Seismic Walkdown Pictures

Equipment ID No. H21P448 Equipment Class: 18, Instrument Racks

Equipment Description Instrument Rack – EECW System



(DSC 00296)

Conduit "Unsupported"

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P614B Equip. Class¹ 18, Instrumentation Racks

Equipment Description Torus Monitoring System Instrument Rack

Location: Bldg. RB Floor El. 540'-0" Room, Area A-02, Col B-9

Manufacturer, Model, Etc. (optional but recommended) DECO, N/A

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 was observed to be intact and secure. (See Picture 57.)

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
No corrosion was observed in the anchorage. (See Picture 57.)

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
No cracks in the concrete were observed.

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 anchorage configuration verification is required.)
Measurement of the anchorage configuration match what is shown in drawing I-2525-36 Rev E, Section C-C. (No Postings) ~ DWH 10/2/12

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
No adverse seismic conditions due to anchorage were observed.

¹ Enter the equipment class name from Appendix B: Classes of Equipment MPS 10/3/12

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P614B Equip. Class¹ 18, Instrumentation Racks

Equipment Description Torus Monitoring System Instrument Rack

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
There are no observed impact sources nearby. See pictures 66 & 67 for general area.
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
There are no ceiling tiles, masonry block or other realistic hazards in the area. Note the overhead view in Picture 65.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Attached lines are either made of flex conduit or are looped to provide adequate flexibility. (See Pictures 58 and 67)
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
No adverse seismic conditions due to interaction effects were observed.
-

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
No other seismic conditions identified.

MPS 10/3/12

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: Y N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P614B Equip. Class' 18, INSTRUMENT RACKS
Equipment Description TORUS MONITORING SYSTEM INSTRUMENT RACK

Comments (Additional pages may be added as necessary)

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: Mihel P. Sasso Date: 9/13/12

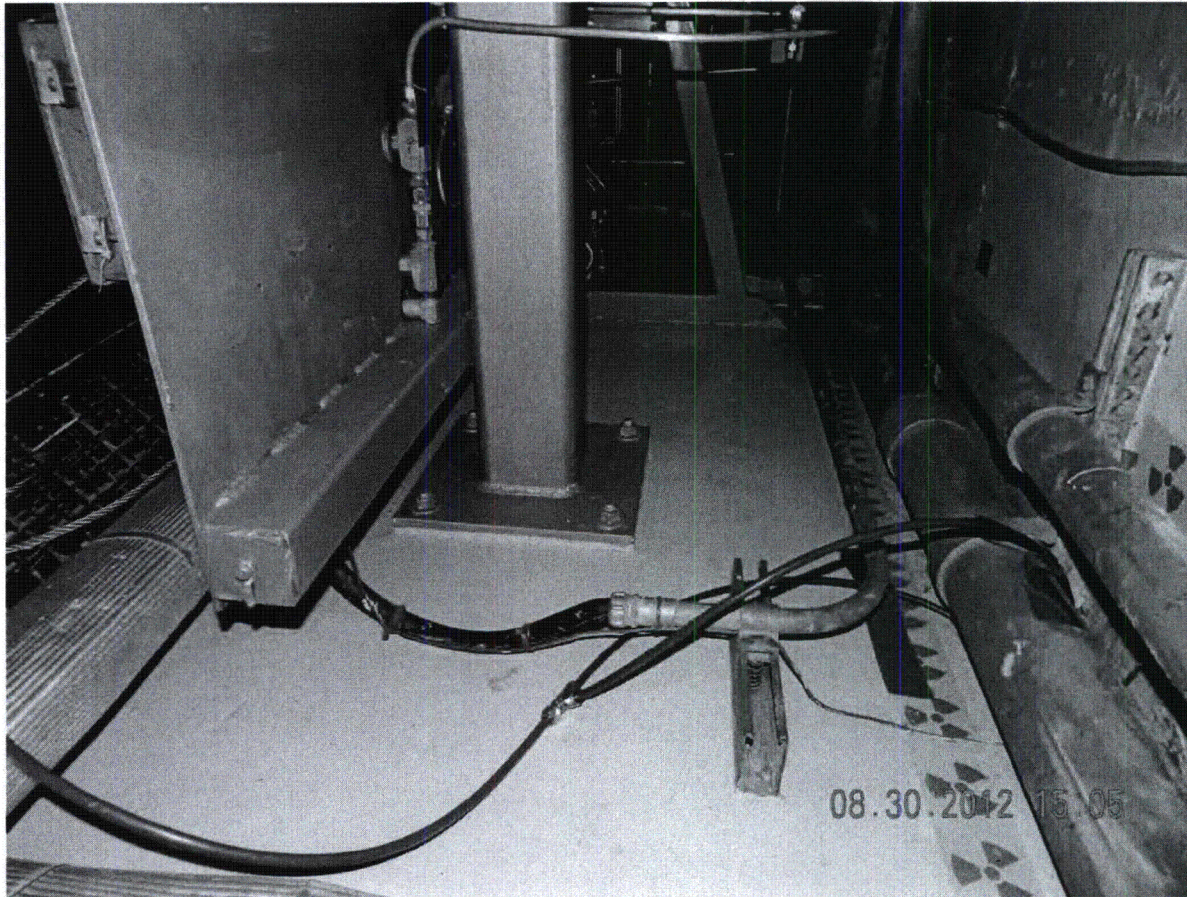
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: Scott Bauer Date: 9/12/12

Seismic Walkdown Pictures

Equipment ID No. H21P614B Equipment Class: 18, Instrument Racks

Equipment Description Torus Monitoring System Instrument Rack



(Picture 57)

Seismic Walkdown Pictures

Equipment ID No. H21P614B Equipment Class: 18, Instrument Racks

Equipment Description Torus Monitoring System Instrument Rack

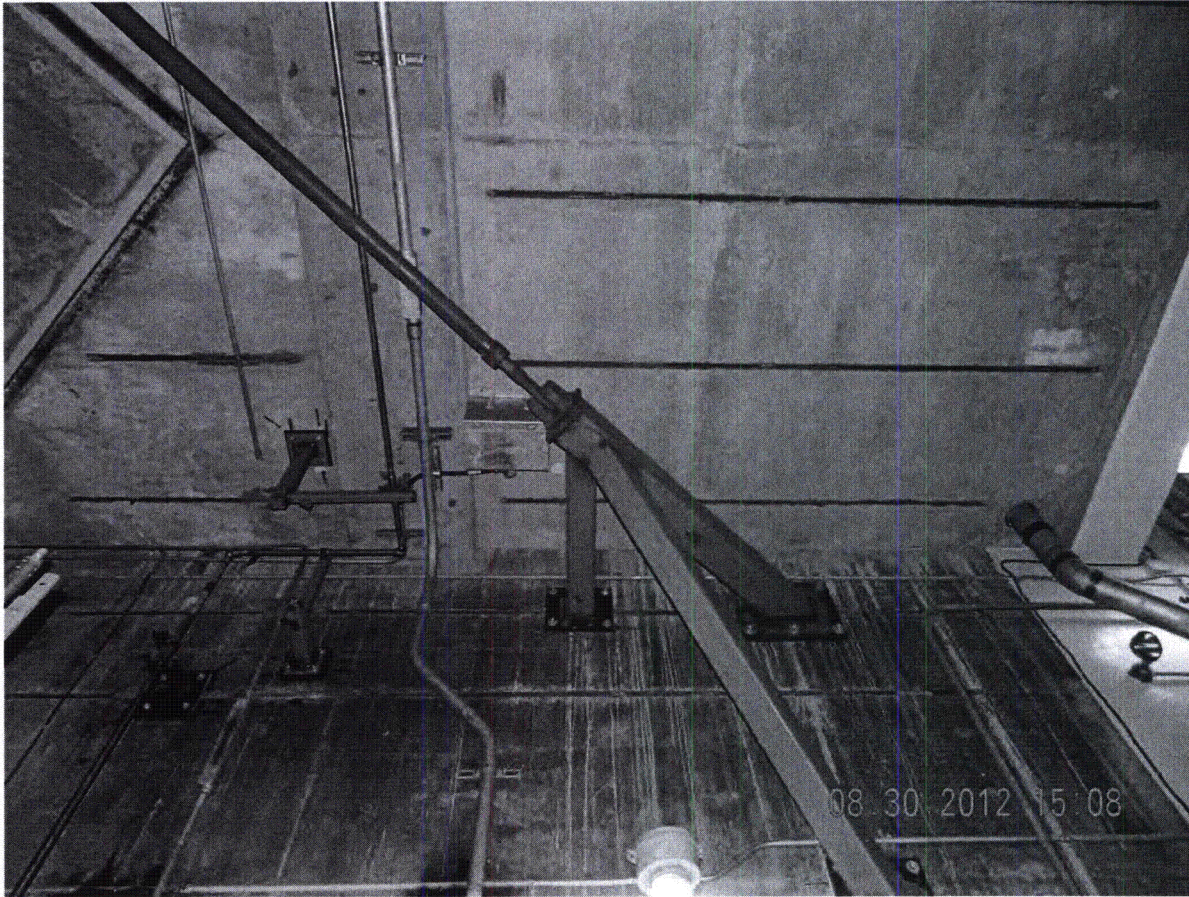


(Picture 58)

Seismic Walkdown Pictures

Equipment ID No. H21P614B Equipment Class: 18, Instrument Racks

Equipment Description Torus Monitoring System Instrument Rack

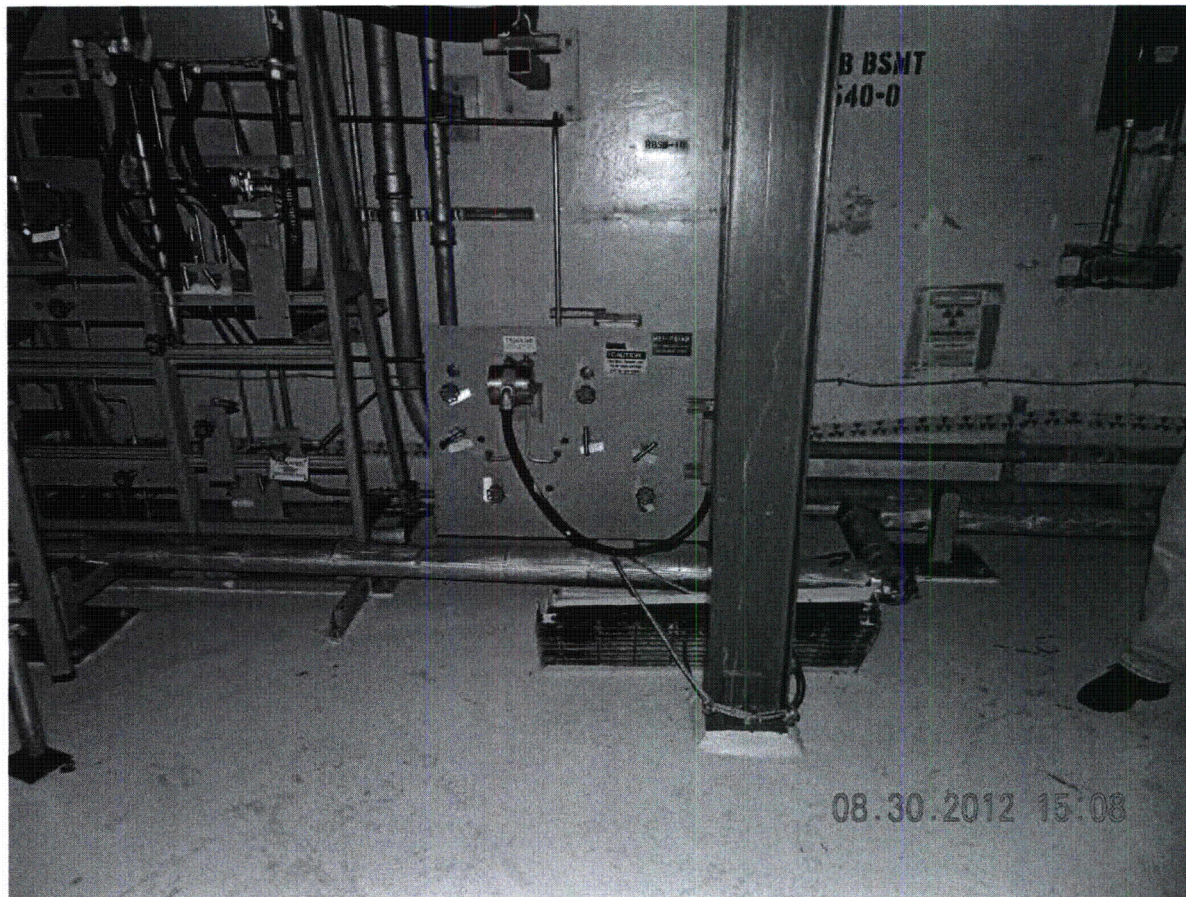


(Picture 65)

Seismic Walkdown Pictures

Equipment ID No. H21P614B Equipment Class: 18, Instrument Racks

Equipment Description Torus Monitoring System Instrument Rack

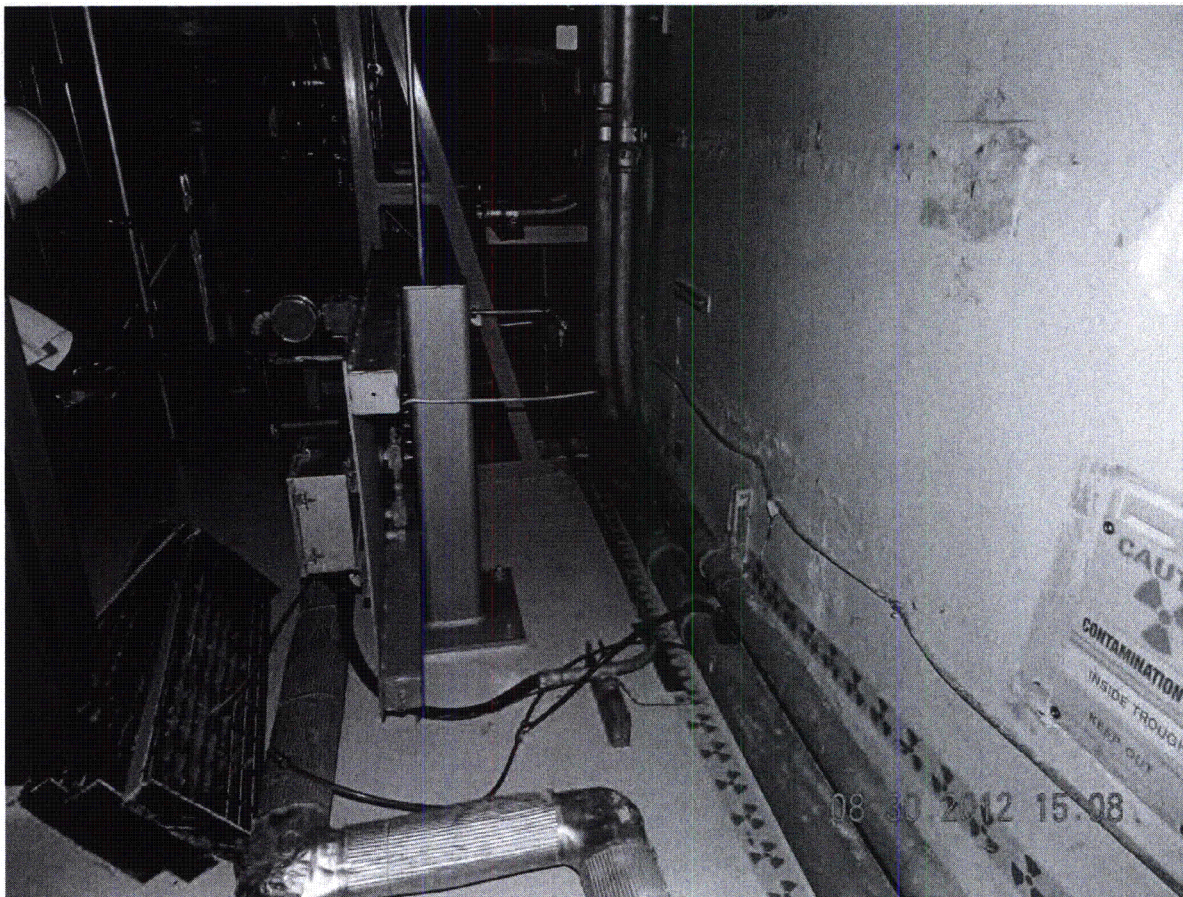


(Picture 66)

Seismic Walkdown Pictures

Equipment ID No. H21P614B Equipment Class: 18, Instrument Racks

Equipment Description Torus Monitoring System Instrument Rack



(Picture 67)

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P624 Equip. Class¹ 20, Instrumentation and Control Panels

Equipment Description H21-P624 DIV 1 BUS 64C Dedicated Shutdown Panel

Location: Bldg. AB Floor El. 613'-6" Room, Area B-11, Col G-10

Manufacturer, Model, Etc. (optional but recommended) HOFFMAN, A-30H30BLP

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
See Photos DSCN0728 & 0730

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
All anchorage is present and securely tightened.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
No corrosion observed.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
No concrete cracks observed.

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 conforms to Fermi Spec. 3071-128, STD-ED-P9-1, Calc. DC-5165 Vol I and Dwg. E-2838-22L, Note 5.
*ALL DOCUMENTS REFERENCED (LATEST REVISION) WERE REVIEWED AND / DSU
NO APPLICABLE POSTINGS WERE FOUND. 10/12/12*

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

DSU

¹ Enter the equipment class name from Appendix B: Classes of Equipment

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P624 Equip. Class¹ 20, Instrumentation and Control Panels

Equipment Description H21-P624 DIV 1 BUS 64C Dedicated Shutdown Panel

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
All nearby equipment is appropriately restrained. (See Photo DSCN0737)
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
Lights are on chains. No ceiling tiles or block walls. Other overhead items are adequately supported and anchored.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Conduits are looped and therefore have adequate flexibility. (See Photo DSCN0738)
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
See photo DSCN 0741
-

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
No other seismic conditions identified.

Rwj

Fermi 2 Seismic Walkdown Guidance Document
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3
Status: (Y) N U

Seismic Walkdown Checklist (SWC)

Equipment ID No. H21P624 Equip. Class¹ 20, INSTRUMENTATION & CONTROL PANELS

Equipment Description H21-P624 DIV 1 BUS 64C DEDICATED SHUTDOWN PANEL

Comments (Additional pages may be added as necessary)

~~NONE~~

Note: Per NEI Focus Group response to Frequently Asked Questions (FAQ) dated September 18, 2012, a supplemental seismic walkdown was conducted on October 8, 2012 to open the panel and visually inspect inside. The supplemental SWC follows this SWC.

JAM
10/22/12

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: Scott Baren Date: 8/22/12

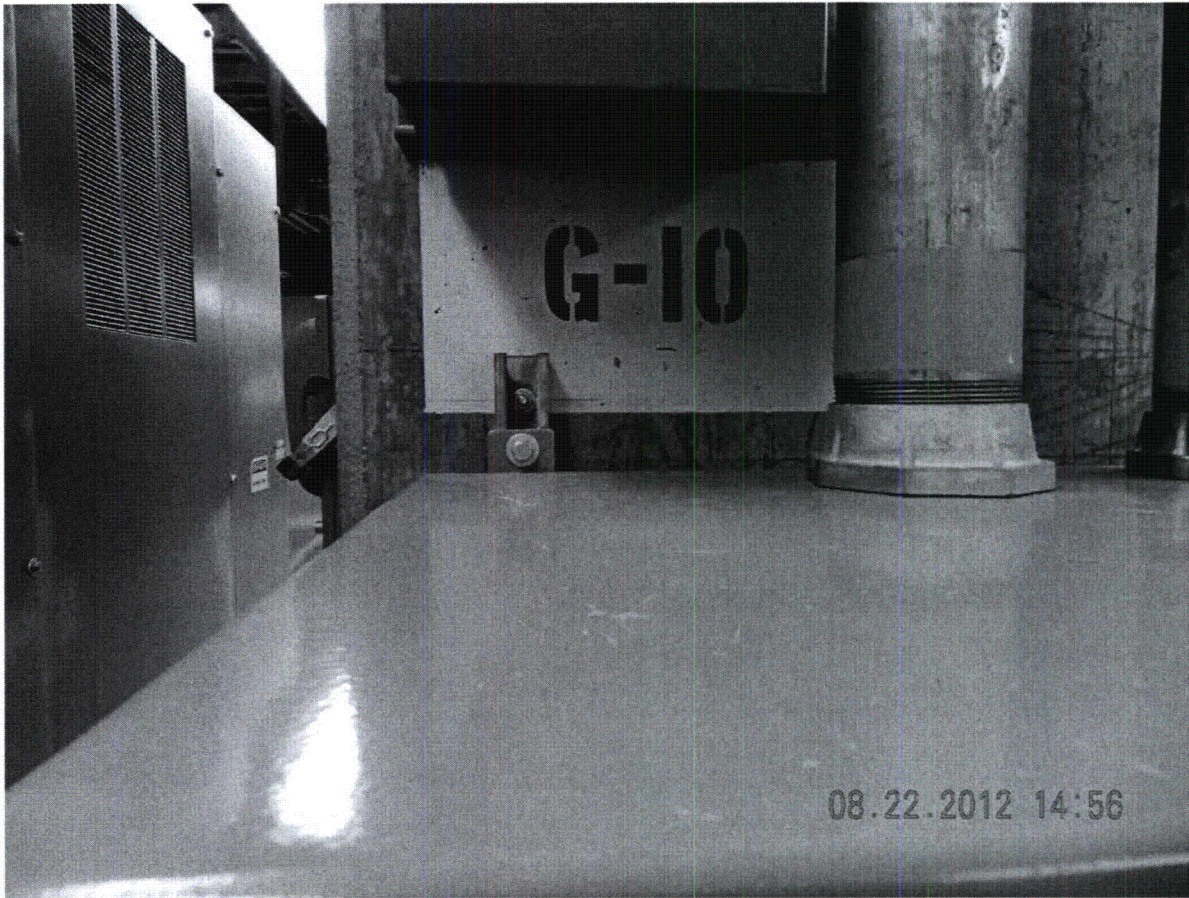
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: Rymondorf Date: 8/22/12

Seismic Walkdown Pictures

Equipment ID No. H21P624 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description DIVI Bus 64C Dedicated Shutdown Panel



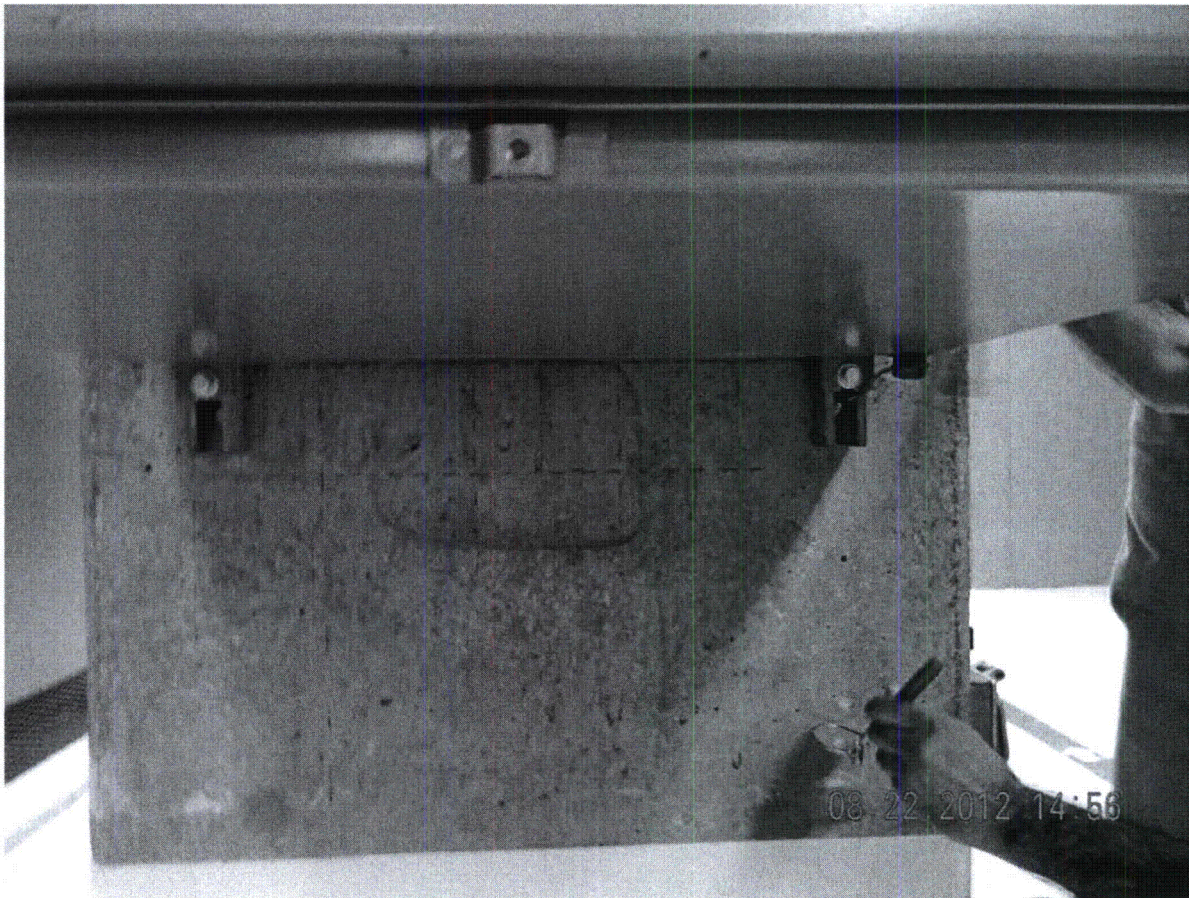
"Bolt Configuration"

(DSCN0728)

Seismic Walkdown Pictures

Equipment ID No. H21P624 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description DIVI Bus 64C Dedicated Shutdown Panel



"Bolt Configuration"

(DSCN0730)

Seismic Walkdown Pictures

Equipment ID No. H21P624 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description DIV1 Bus 64C Dedicated Shutdown Panel



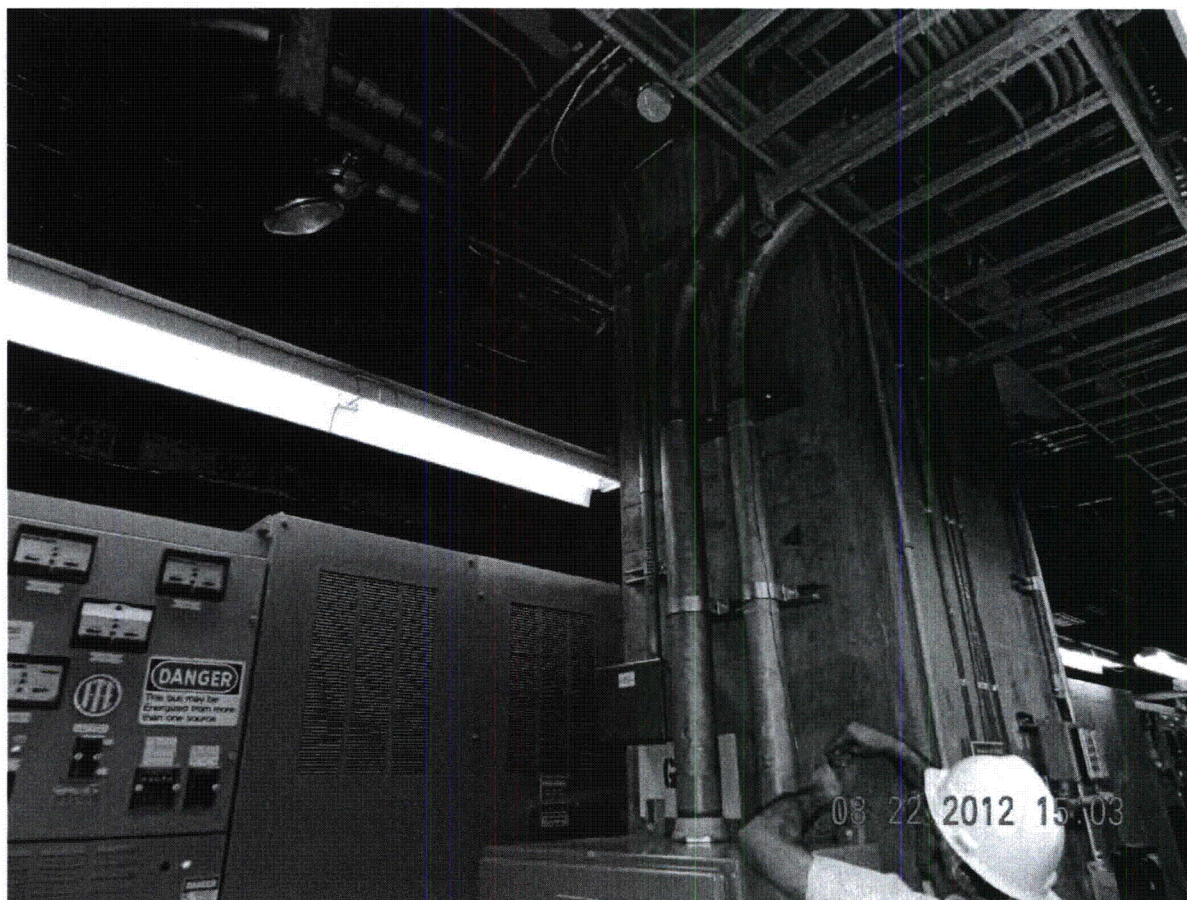
"Overhead Equipment or SSC"

(DSCN0737)

Seismic Walkdown Pictures

Equipment ID No. H21P624 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description DIVI Bus 64C Dedicated Shutdown Panel



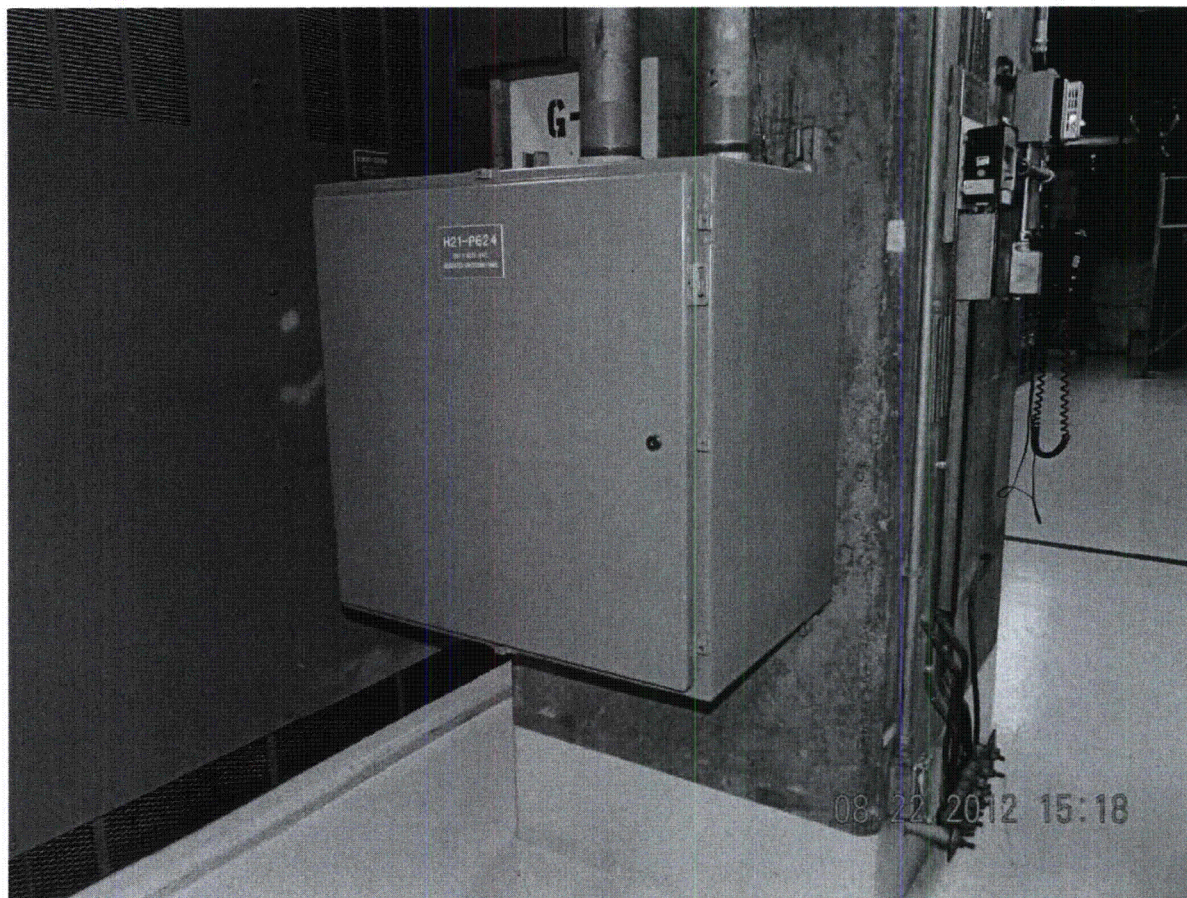
"Overhead Equipment or SSC"

(DSCN0738)

Seismic Walkdown Pictures

Equipment ID No. H21P624 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description DIV1 Bus 64C Dedicated Shutdown Panel



(DSCN0741)