

Fermi 2 Seismic Walkdown Guidance Document  
Seismic Walkdown Checklist

Sheet 1 of 3  
Status:  Y  N  U

NJPR-12-0043

Seismic Walkdown Checklist (SWC)

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

Equipment ID No. H21P624 Equip. Class<sup>1</sup> 20, Instrumentation & Control Panels

Equipment Description H21-P624 Div. 1 Bus 64C Dedicated Shutdown Panel

Location: Bldg. AB2 Floor El. 613'-6" Room, Area Room B-11, Col. G-10

Manufacturer, Model, Etc. (optional but recommended) Hoffman, Model 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   
*Not applicable. See August 22, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*
2. Is the anchorage free of bent, broken, missing or loose hardware? Y  N  U  N/A   
*See August 22, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*See response to Question 2 above.*
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*See response to Question 2 above.*
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.)  
*See response to Question 2 above.*
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y  N  U   
*Not applicable. See August 22, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*

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

NJPR-12-0043

Seismic Walkdown Checklist (SWC)

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

Equipment ID No. H21P624 Equip. Class<sup>1</sup> 20, Instrumentation & 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  
*See August 22, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*
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  
*See response to Question 7, above.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*See response to Question 7, above.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*Not applicable. See August 22, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*

**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  
*The door on the instrument panel was opened to permit evaluating the adequacy of fasteners securing components mounted inside. None of the components weighed more than two pounds. No adverse conditions were identified. See Photo 1, attached.*



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Sheet 3 of 3  
Status: Y N U

Seismic Walkdown Checklist (SWC)

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

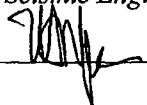
Equipment ID No. H21P624 Equip. Class<sup>1</sup> 20, Instrumentation & Control Panels

Equipment Description H21-P624 Div. 1 Bus 64C Dedicated Shutdown Panel

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

*Anchorage and Interaction Effects were evaluated during an August Walkdown and results reported in a Seismic Walkdown Checklist dated August 22, 2012. However, during the Walkdown, the door on the instrument panel was not opened to afford Seismic Walkdown Engineers an opportunity to inspect anchorage on components inside the panel. A September 18, 2012, NEI Focus Group response to Frequently Asked Questions about opening cabinet doors led to consider increasing the scope of the August 22 Walkdown. Therefore, the scope of this Walkdown included unlocking and opening the panel door and evaluating fasteners securing components mounted inside.*

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1:  Date: 10/08/12

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: Michael P. Sasso Date: 10/9/12

**Seismic Walkdown Pictures**

Equipment ID No. H21P624 Equipment Class: 20, Instrument and Control Panels

Equipment Description H21-P624 Div. 1 Bus 64C Dedicated Shutdown Panel

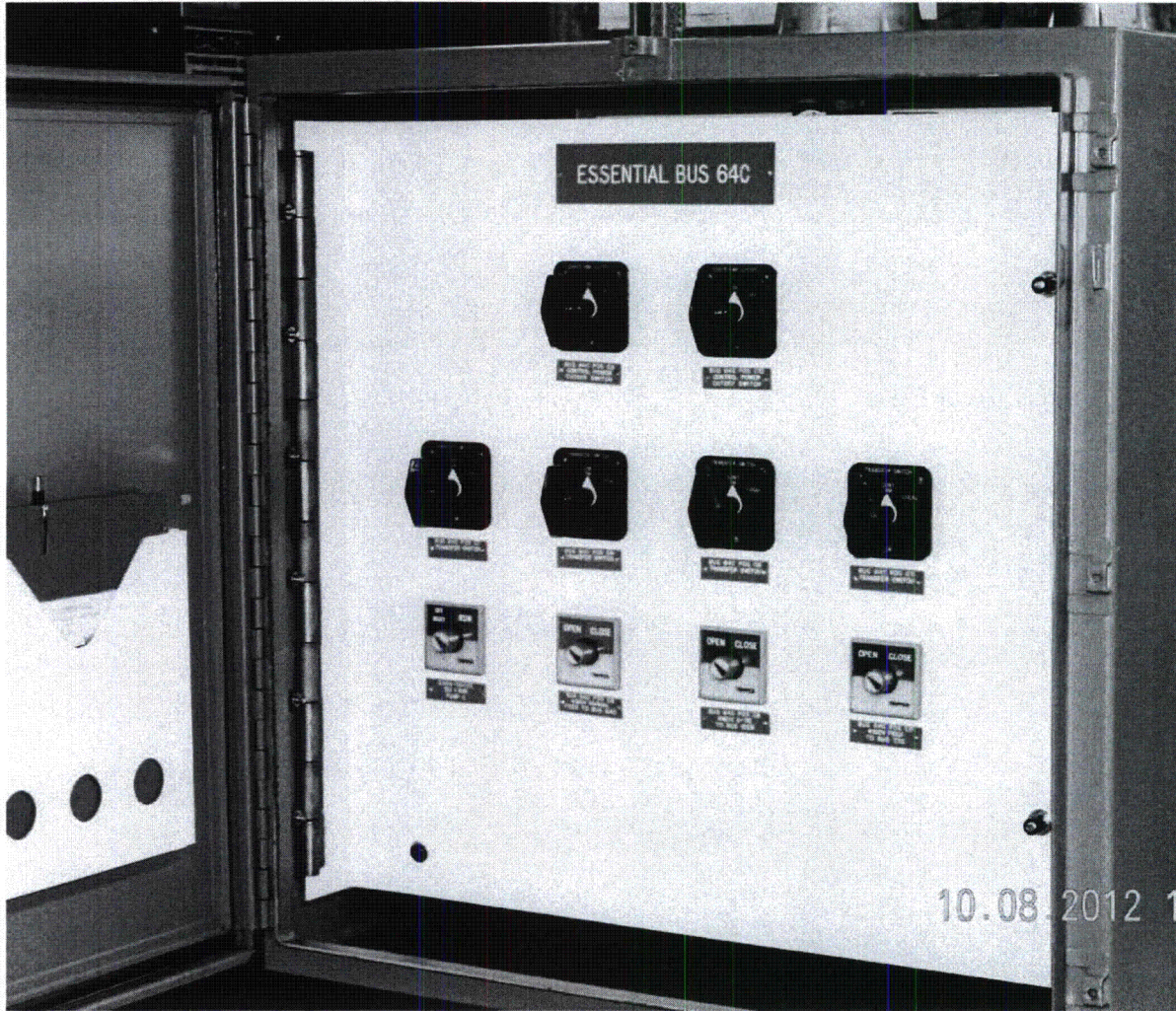


Photo 1, Close-Up View of Inside of Shutdown Panel

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. H21P628 Equip. Class<sup>1</sup> 20, Instrument Panel

Equipment Description Dedicated Shutdown Local Control Panel Div I

Location: Bldg. AB Floor El. 613'-6" Room, Area Switchgear Room (B-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  N/A  
*1 welded to embedded plate and 3 welded to bolted base plate.  
(SEE PICTURES DSCN0303, DSCN0305, DSCN0306, DSCN0309) ~ DJK 10/9/12*
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A  
*All base anchorage connections complete. See question No. 5 for configuration control issue.  
(SEE PICTURES DSCN0303, DSCN0305, DSCN0306, DSCN0309) ~ DJK 10/9/12*
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*Welds painted. Anchor bolts free of corrosion.  
(SEE PICTURE DSCN0303) ~ DJK 10/9/12*
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*Concrete at anchor bolts and embedded plate free of corrosion and cracks in concrete.*
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.)  
Drawing has configuration error – Section G-G is incorrect for the front right leg – As-built condition is as shown on section D-D from H21P626. Verification and drawing update required (ref. Dwg. E-2998-05). CARD 12-26837 has been issued to track drawing configuration error. Welds of unistrut are consistent with drawing and welding of front legs to equipment is consistent with drawing. SEE COMMENTS ~ DJK 10/12/12  
(SEE PICTURES DSCN0303, DSCN0305, DSCN0306, DSCN0309) ~ DJK 10/9/12*
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
~~Need to verify configuration control issue above~~ JAM 10/18/12

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. H21P628 Equip. Class<sup>1</sup> 20, Instrument Panel

Equipment Description Dedicated Shutdown Local Control Panel Div I

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Phone and speaker robustly mounted. Operations green box anchored to the wall with 6 3/8" Ø concrete expansion anchors.*
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 on cable and wire. Cable tray seismically supported*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Bottom entry to cabinet flex in 12" radius approx. (See Picture DSCN0303)  
Lines have adequate flexibility.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U

JAM  
10/18/12

**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  
~~Cabinet not opened.~~

Note: This asset is locked and would require an operator to be unlock, therefore panel was not opened. Base anchorage was exterior and verifiable.

JAM  
10/18/12

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Sheet 3 of 3  
Status: Y ~~N~~ ~~D~~ JML  
08.30.2012

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. H21P628 Equip. Class<sup>1</sup> 20 INSTRUMENT PANEL

Equipment Description DEDICATED SHUTDOWN LOCAL CONTROL PANEL DIV I

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

Dwg. E-2998-05, REV. B HAS NO POSTINGS v DJK 10/12/12

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: David O'Decker Date: 08/14/2012

Seismic Engineer Walkdown PSE-53 Qualified

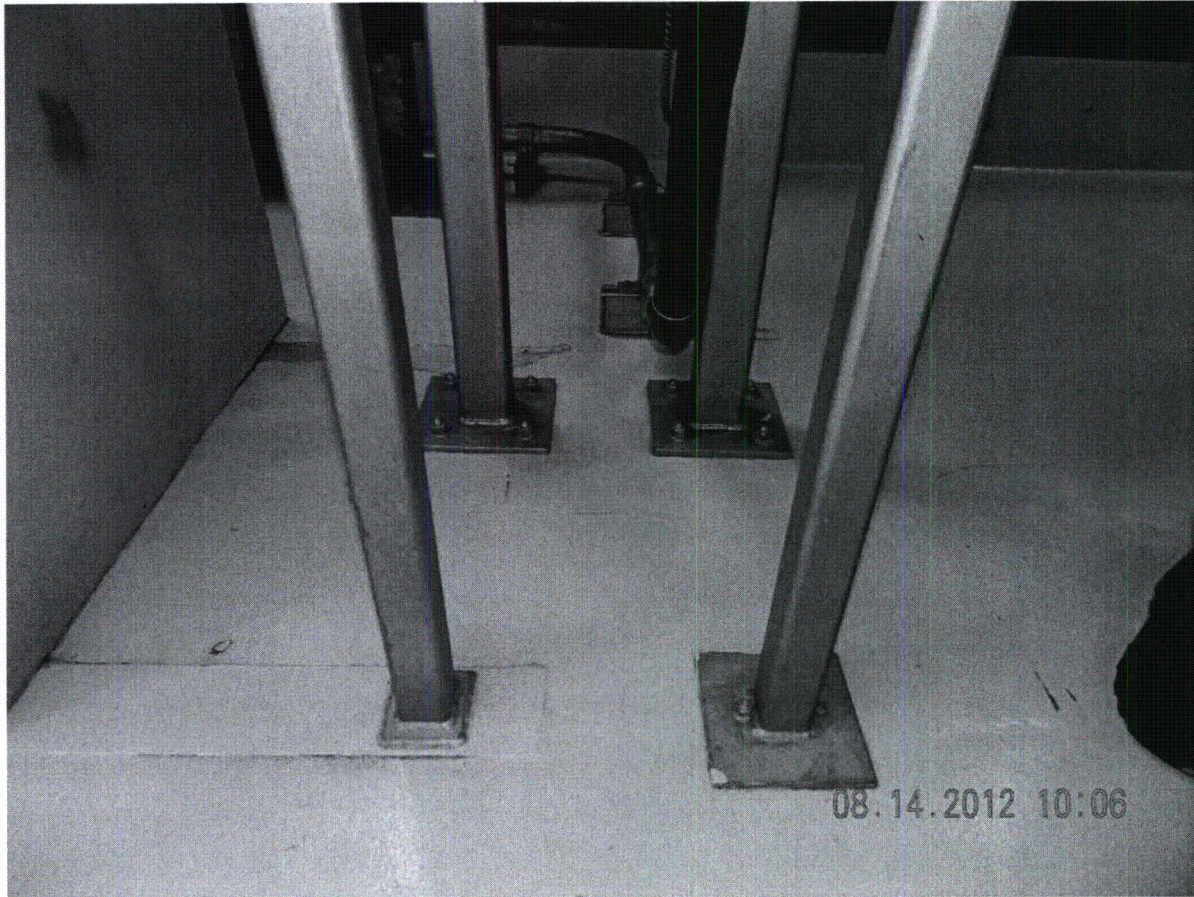
Evaluator #2: Joseph M. Ballone Date: 08/14/2012



**Seismic Walkdown Pictures**

Equipment ID No. H21P628 Equipment Class: 20, Instrument & Control Panel

Equipment Description Dedicated Shutdown Local Control Panel DIV1



(DSCN0303)

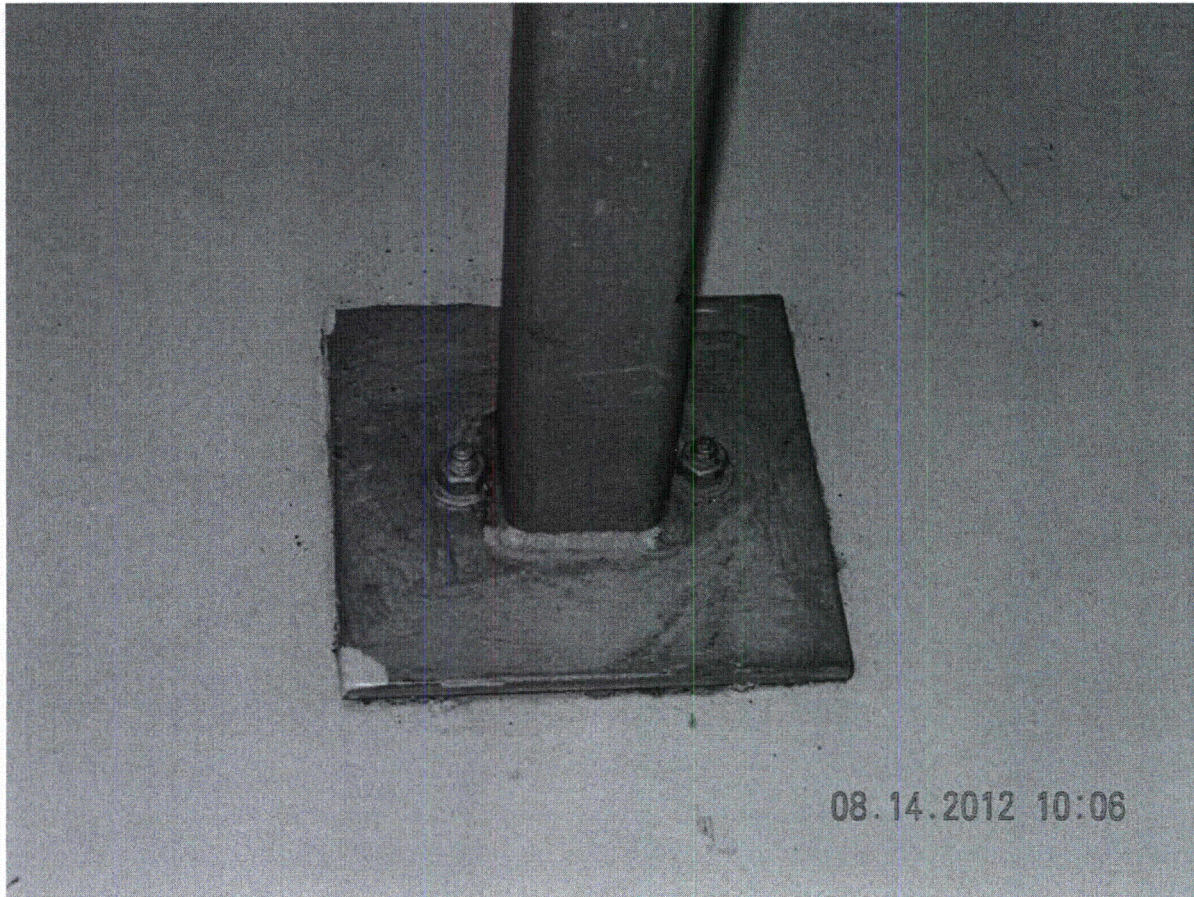
General Mounting Configuration



**Seismic Walkdown Pictures**

Equipment ID No. H21P628 Equipment Class: 20, Instrument & Control Panel

Equipment Description Dedicated Shutdown Local Control Panel DIV1



(DSCN0305)

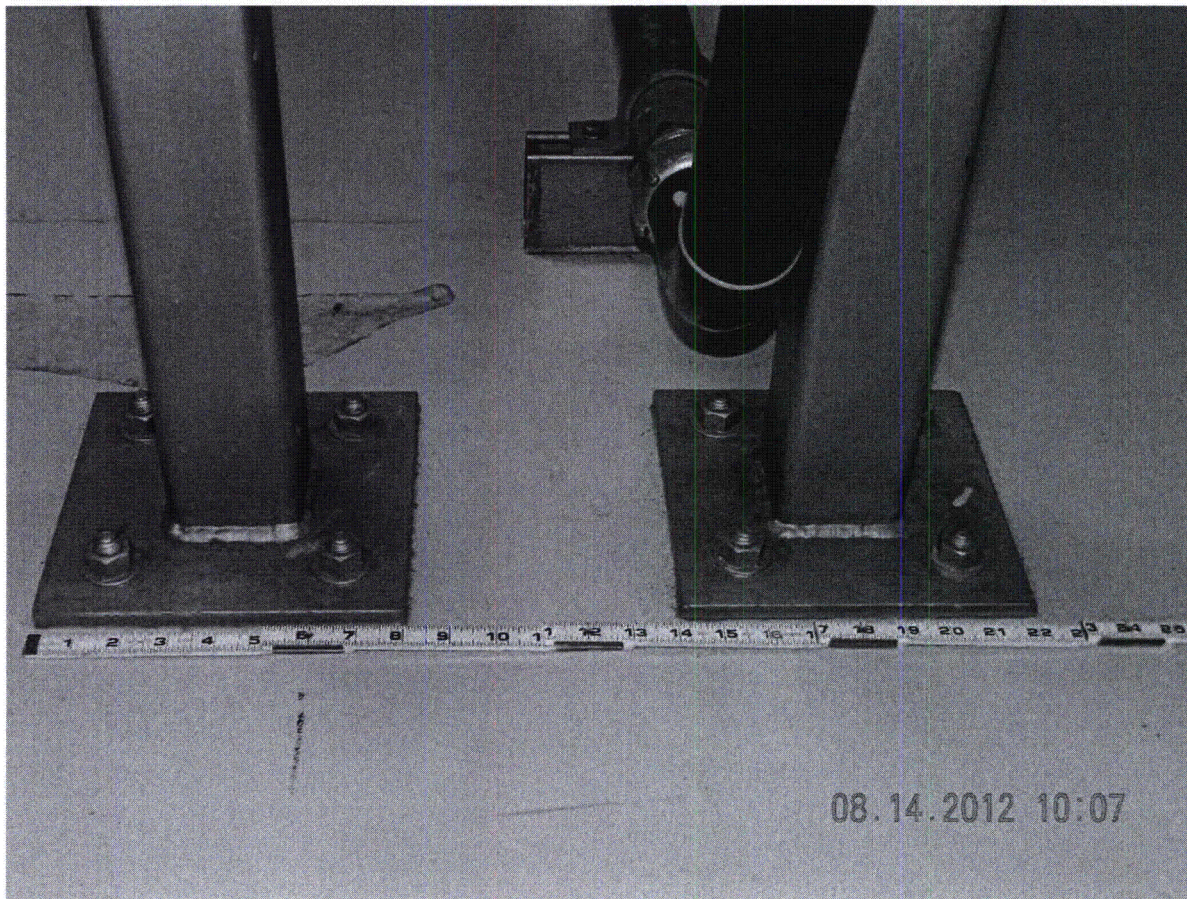
Bolting Configuration to Concrete Floor



**Seismic Walkdown Pictures**

Equipment ID No. H21P628    Equipment Class: 20, Instrument & Control Panel

Equipment Description Dedicated Shutdown Local Control Panel DIV1



(DSCN0306)

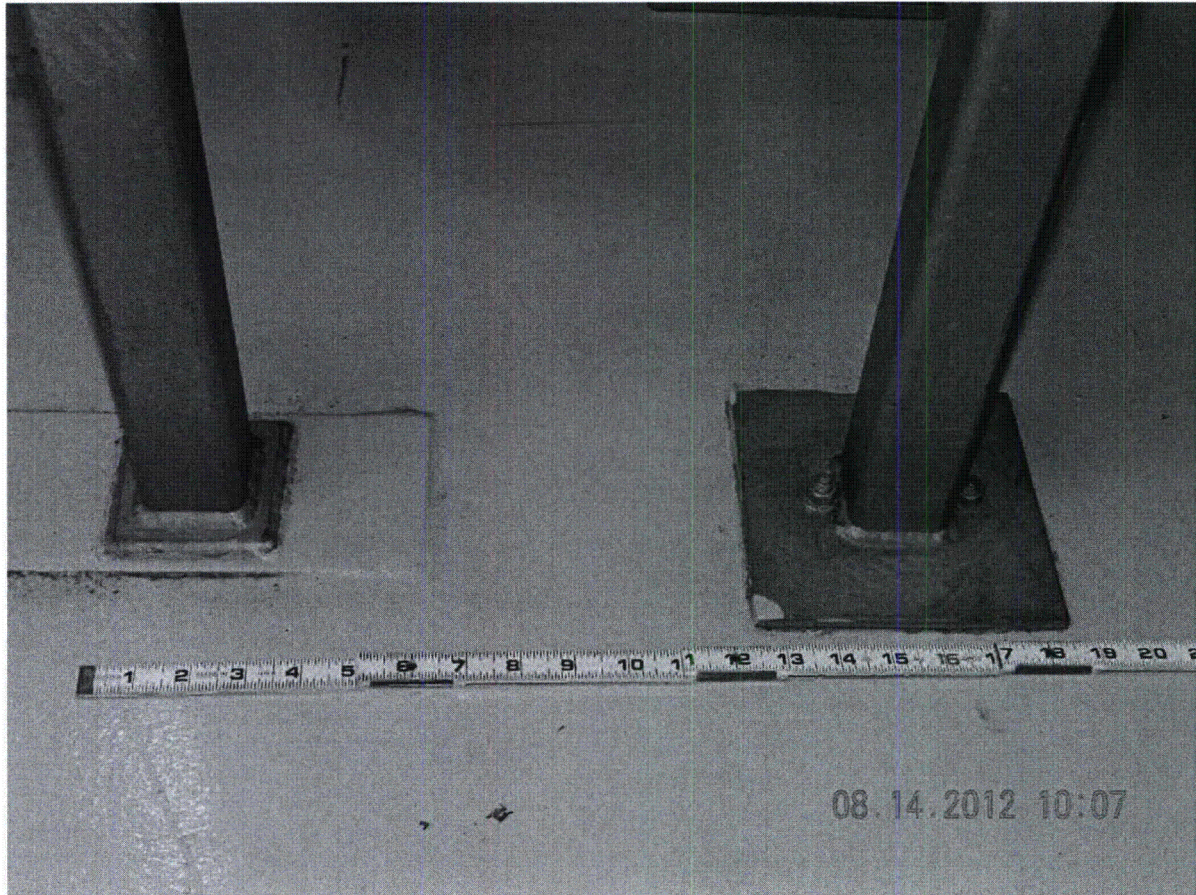
Bolting Configuration to Concrete Floor (Rear)



**Seismic Walkdown Pictures**

Equipment ID No. H21P628 Equipment Class: 20, Instrument & Control Panel

Equipment Description Dedicated Shutdown Local Control Panel DIV1



(DSCN0309)

Bolting Configuration to Concrete Floor (Front)

**Seismic Walkdown Checklist (SWC)**

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

Equipment ID No. H21P628 Equip. Class<sup>1</sup> 20, Instrument Panel

Equipment Description Dedicated Shutdown Panel, Local Control Panel Div. 1

Location: Bldg. AB2 Floor El. 613'-6" Room, Area Switchgear Room B-11, Col. G-10

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  
*Not applicable. See August 14, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A  
*See August 14, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*See response to Question 2, above.*
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*See response to Question 2, above.*
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)  Y  N  U  N/A  
*See response to Question 2, above.*
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
*Not applicable. See August 14, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*

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

**Seismic Walkdown Checklist (SWC)**

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

Equipment ID No. H21P628 Equip. Class<sup>1</sup> 20, Instrument Panel

Equipment Description Dedicated Shutdown Panel, Local Control Panel Div. 1

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*See August 14, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*
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  
*See response to Question 7, above.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*See response to Question 7, above.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*Not applicable. See August 14, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 8, 2012.*

**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  
*The door on the instrument panel was opened to permit evaluating the adequacy of fasteners securing components mounted inside. None of the components weighed more than two pounds. No adverse conditions were identified. See Photos 1, 2 & 3 attached.*

**Seismic Walkdown Checklist (SWC)**

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

Equipment ID No. H21P628 Equip. Class<sup>1</sup> 20, Instrument Panel

Equipment Description Dedicated Shutdown Panel, Local Control Panel Div. 1

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

*Anchorage and Interaction Effects were evaluated during an August Walkdown and results reported in a Seismic Walkdown Checklist dated August 14, 2012. However, during the Walkdown, the door on the instrument panel was not opened to afford Seismic Walkdown Engineers an opportunity to inspect anchorage on components inside the panel. A September 18, 2012, NEI Focus Group response to Frequently Asked Questions about opening cabinet doors led to consider increasing the scope of the August 14 Walkdown. Therefore, the scope of this Walkdown included unlocking and opening the panel door and evaluating fasteners securing components mounted inside.*

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1:  Date: 10/08/12

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: Michael P. Sasso Date: 10/08/12



**Seismic Walkdown Pictures**

Equipment ID No. H21P628 Equipment Class: 20, Instrument Panel

Equipment Description Dedicated Shutdown Local Control Panel Div. 1

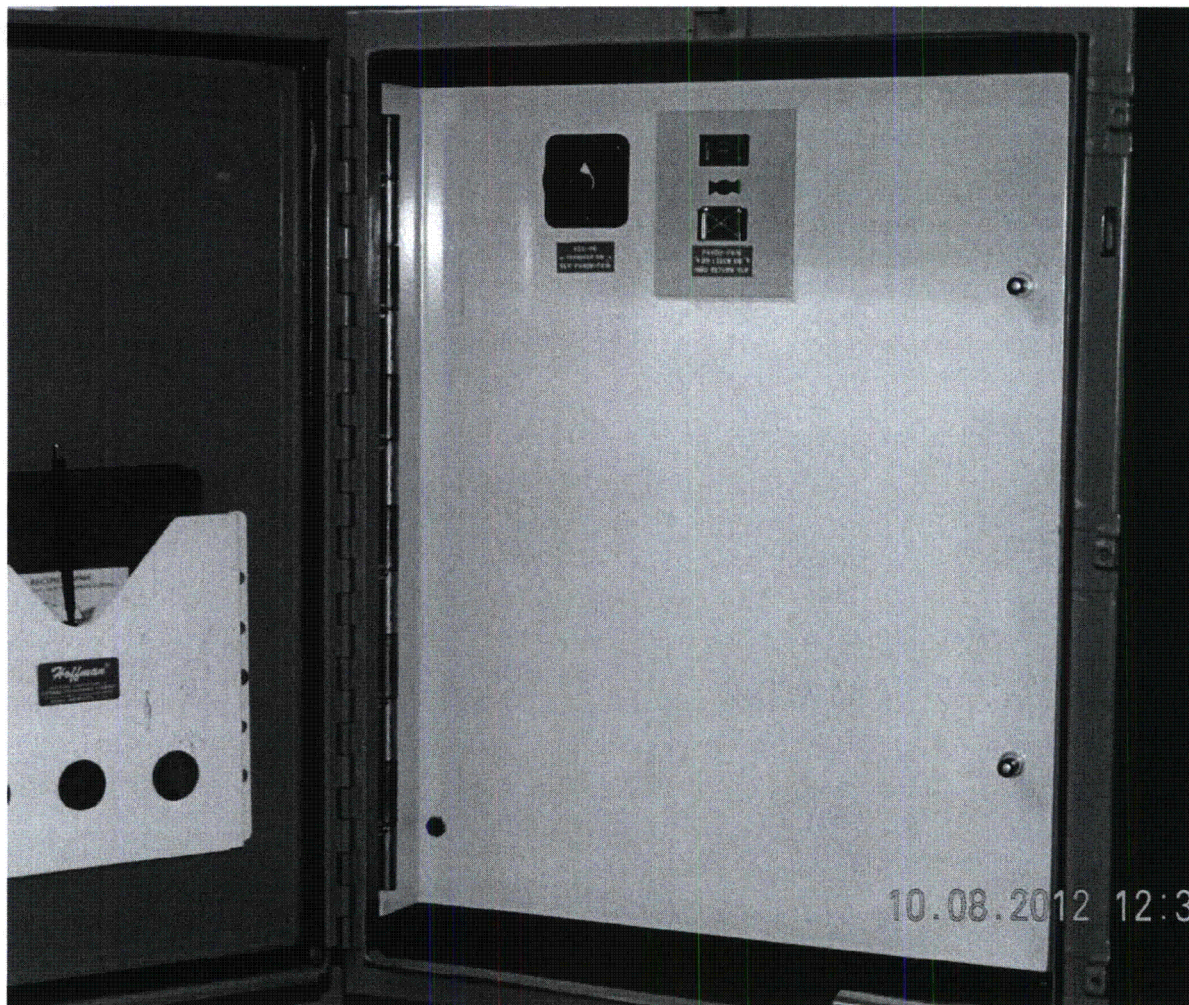


Photo 1, Close-Up View of Inside of Panel



**Seismic Walkdown Pictures**

Equipment ID No. H21P628 Equipment Class: 20, Instrument Panel

Equipment Description Dedicated Shutdown Local Control Panel Div. 1



Photo 2, Close-Up View of Hinge on Left Side of Mounting Plate



**Seismic Walkdown Pictures**

Equipment ID No. H21P628 Equipment Class: 20, Instrument Panel

Equipment Description Dedicated Shutdown Local Control Panel Div. 1

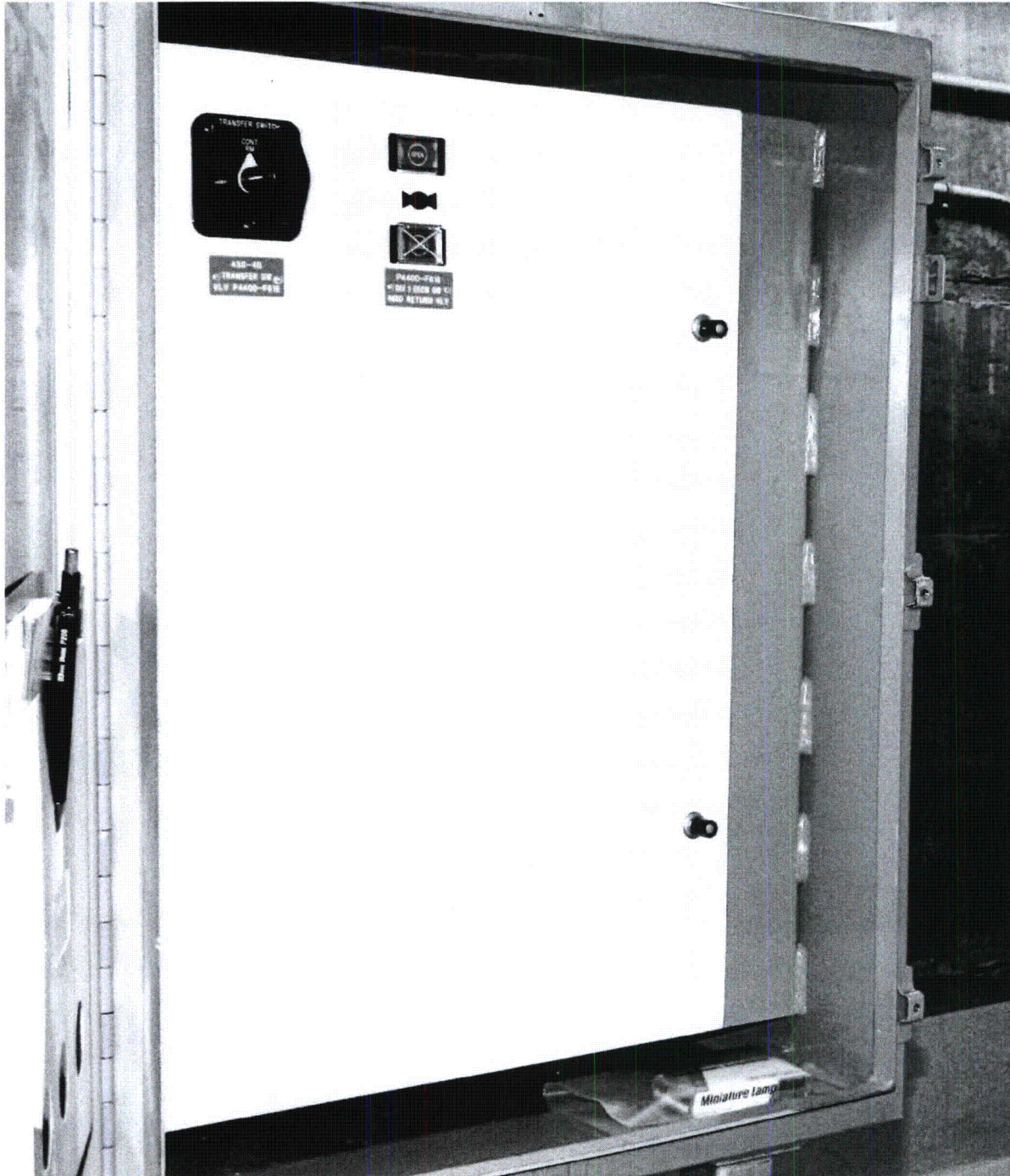


Photo 3, Close-Up View of Welds on Right Side of Mounting Plate

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. H21P632 Equip. Class<sup>1</sup> 20-Instrumentation and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

Location: Bldg. RB Floor El. 2 Room, Area A-17, Col C-10

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

**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 anchorage is present and secure. See pictures 11 and 19.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*The anchorage did not exhibit any corrosion or oxidation!*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*No concrete cracks 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.)  
*Anchorage configuration matches the sketches drawn on pages 11 and 14 of calculation DC-5869 Vol I Rev 0. (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

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

MPS 10/5/12



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. H21P632 Equip. Class<sup>1</sup> 20-Instrumentation and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

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**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*The panel is free from impact because all nearby equipment and structures are appropriately restrained*
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 overhead equipment, distribution systems, and lighting are adequately restrained. There are no ceiling tiles or masonry block walls in the vicinity. See pictures 13 and 18*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Attached lines are looped to provide adequate flexibility. See picture 21. In addition, the unistrut will absorb some energy*
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

MPS 10/5/12

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. H21PG32 Equip. Class 20-Instrumentation and Ctrl. Panels  
Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl. Panel

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

Note: Per NEI Focus Group response to Frequently Asked Questions (FAQ) dated September 18, 2012, a supplemental seismic walkdown was conducted on October 1, 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: Michel P. Sasso Date: 9/5/12

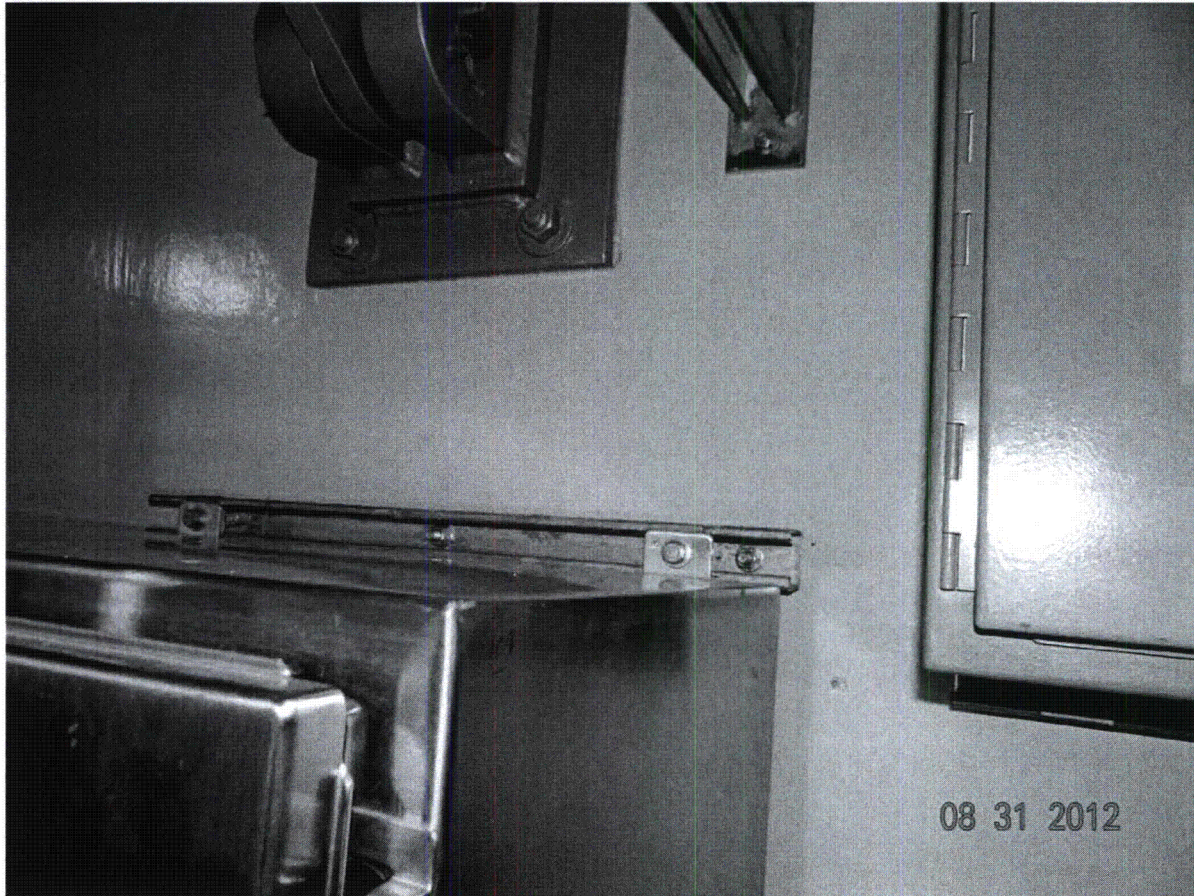
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: Scott Bauer Date: 9/5/12

**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel



(PICTURE # 11)



**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

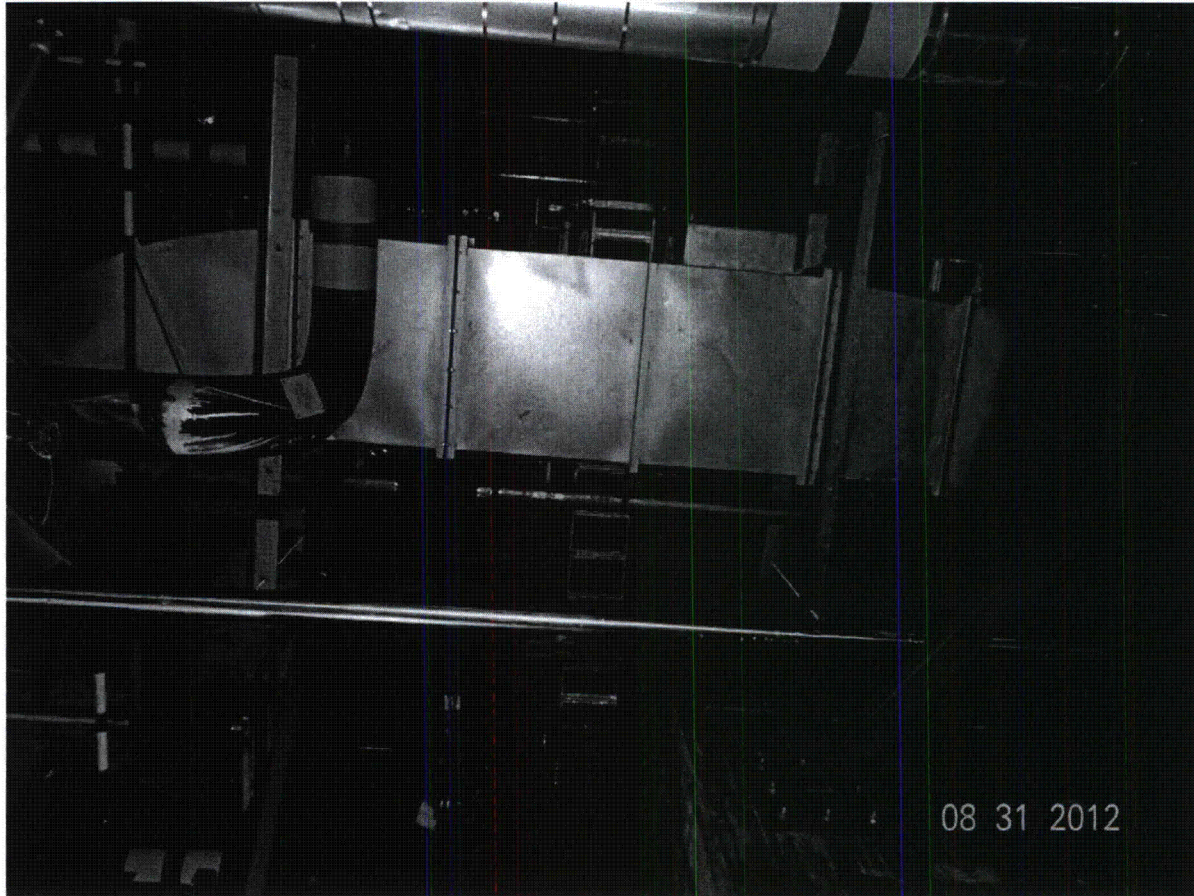


(PICTURE # 13)

**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel



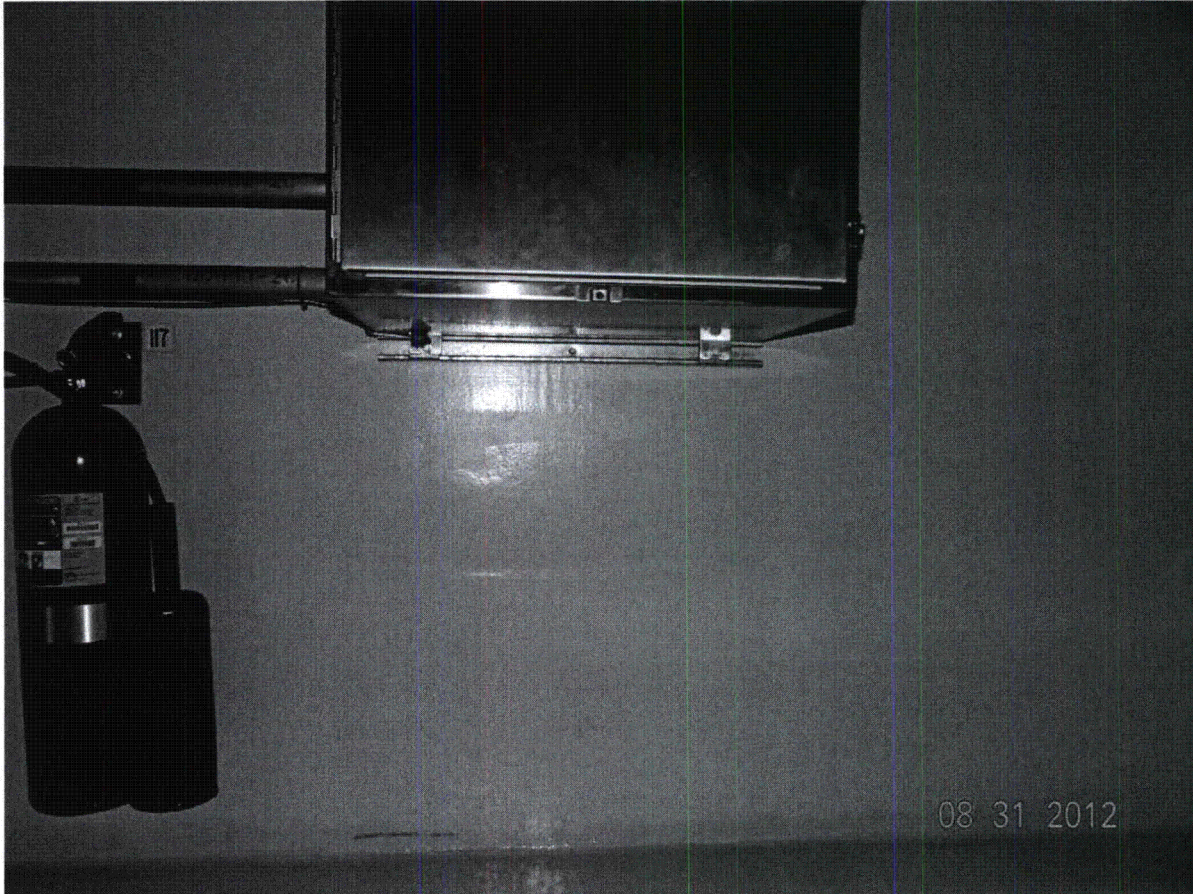
(PICTURE # 18)



**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

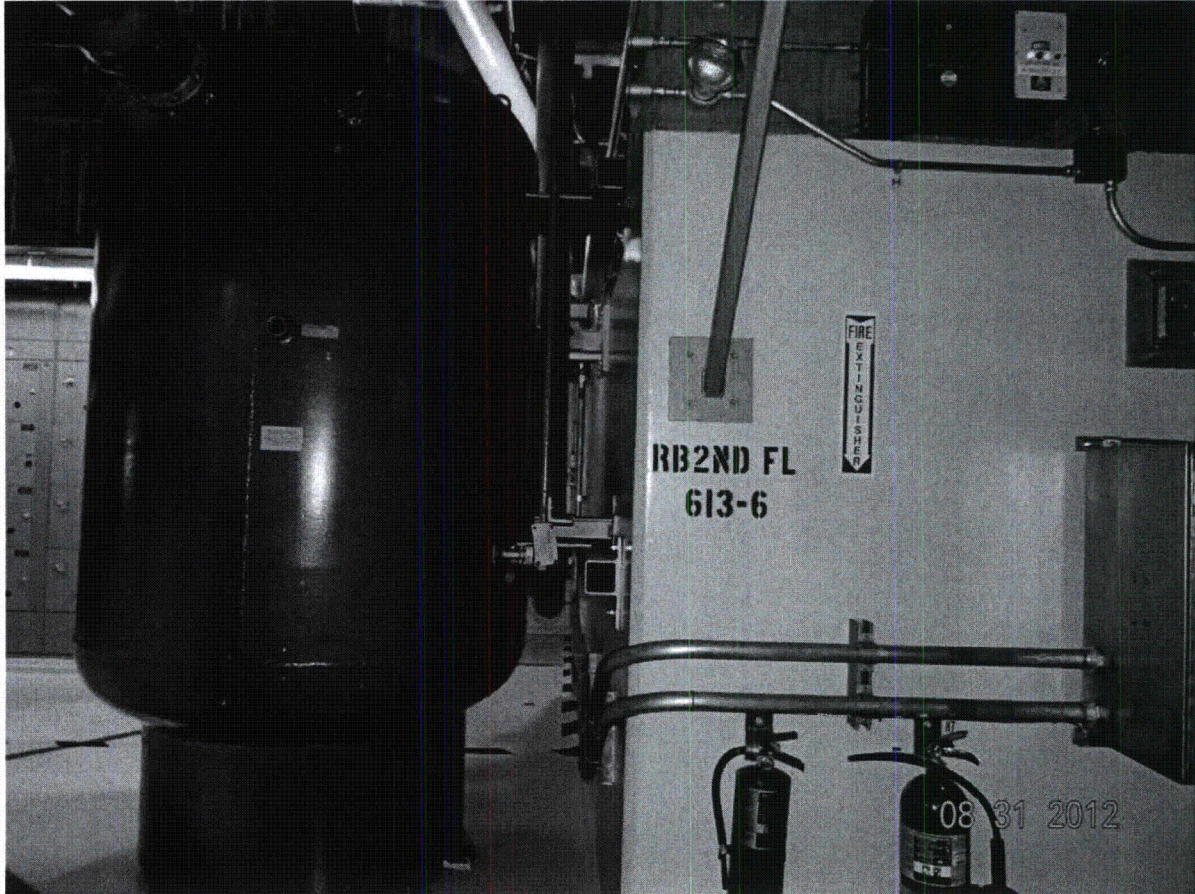


(PICTURE # 19)

**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20, Instrumentation & Control Panel

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel



(PICTURE # 21)



**Seismic Walkdown Checklist (SWC)**

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

Equipment ID No. H21P632 Equip. Class<sup>1</sup> 20 – Instrument and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

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

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

**Instructions for Completing Checklist**

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**Anchorage**

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y  N   
*Not applicable. See September 5, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 1, 2012.*
  
2. Is the anchorage free of bent, broken, missing or loose hardware? Y  N  U  N/A   
*See above.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*See above.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*See above.*
  
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.)  
*See September 5, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 1, 2012.*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y  N  U   
*Not applicable. See September 5, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 1, 2012.*

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



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. H21P632 Equip. Class<sup>1</sup> 20 – Instrument and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*See September 5, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 1, 2012.*
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  
*See above.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*See above.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*Not applicable. See September 5, 2012, Seismic Walkdown Checklist and comment on page 3 on this checklist dated October 1, 2012.*

**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  
*The door on the instrument panel was opened to permit evaluating the adequacy of fasteners securing components mounted inside. Only one of the components weighed more than two pounds. No adverse conditions were identified. See Photos 1, 2 & 3 attached.*

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Seismic Walkdown Checklist

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Sheet 3 of 3  
Status:  N  U

**Seismic Walkdown Checklist (SWC)**

[Note: This Walkdown's scope was limited to cabinet internals per 9/18/12 NEI Focus Group response to Frequently Asked Questions.]

Equipment ID No. H21P632 Equip. Class<sup>1</sup> 20 – Instrument and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

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

*Anchorage and Interaction Effects were evaluated during a September Walkdown and results reported in a Seismic Walkdown Checklist dated September 5, 2012. However, during the September 5 Walkdown, the door on the instrument panel was not opened to afford Seismic Walkdown Engineers an opportunity to inspect anchorage on components inside the panel. A September 18, 2012, NEI Focus Group response to Frequently Asked Questions about opening cabinet doors led to consider increasing the scope of the September 5 Walkdown. Therefore, the scope of this Walkdown included unlocking and opening the panel door and evaluating fasteners securing components mounted inside.*

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1 :  Date: 10/01/12

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2 : Michael P. Dasso Date: 10/01/12

**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20 – Instrument and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

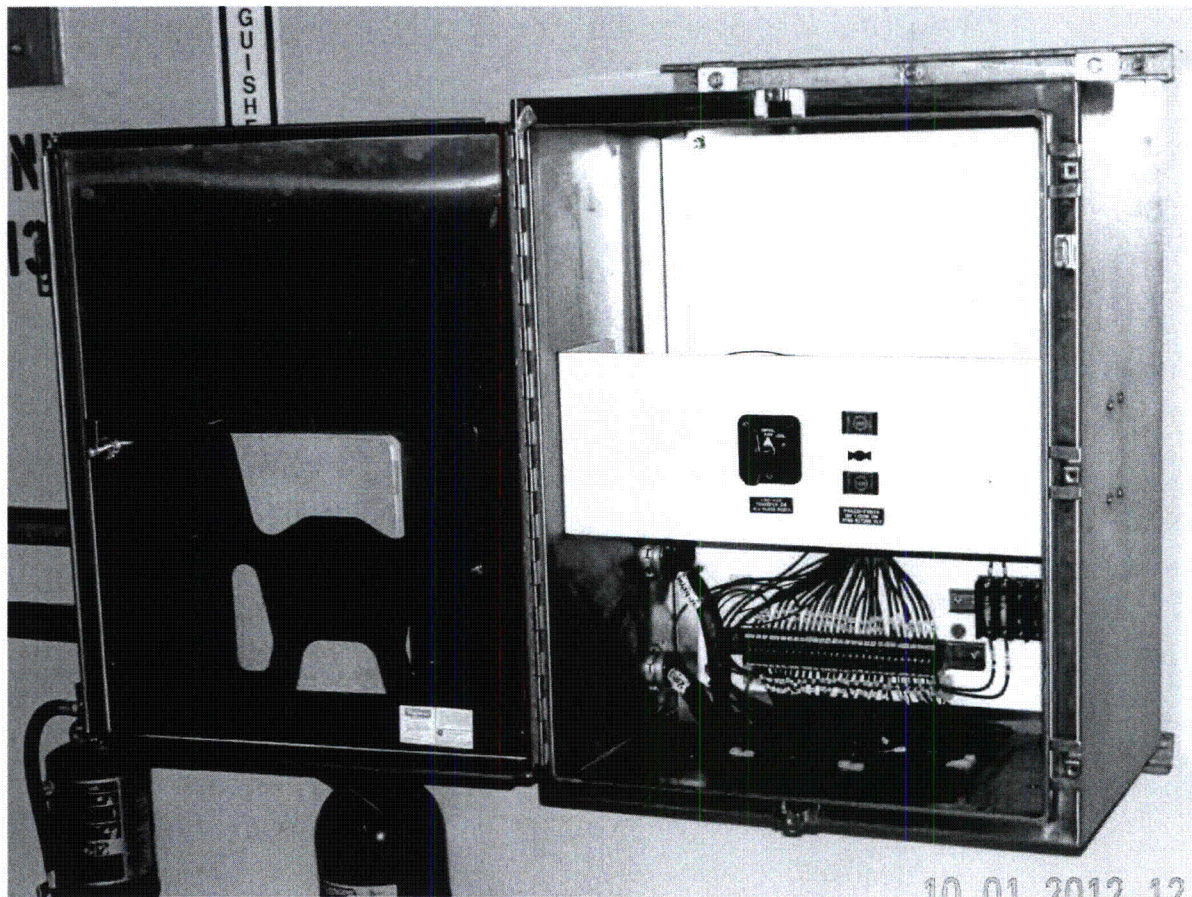


Photo 1, *Components Mounted Inside Instrument Panel*



**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20 – Instrument and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

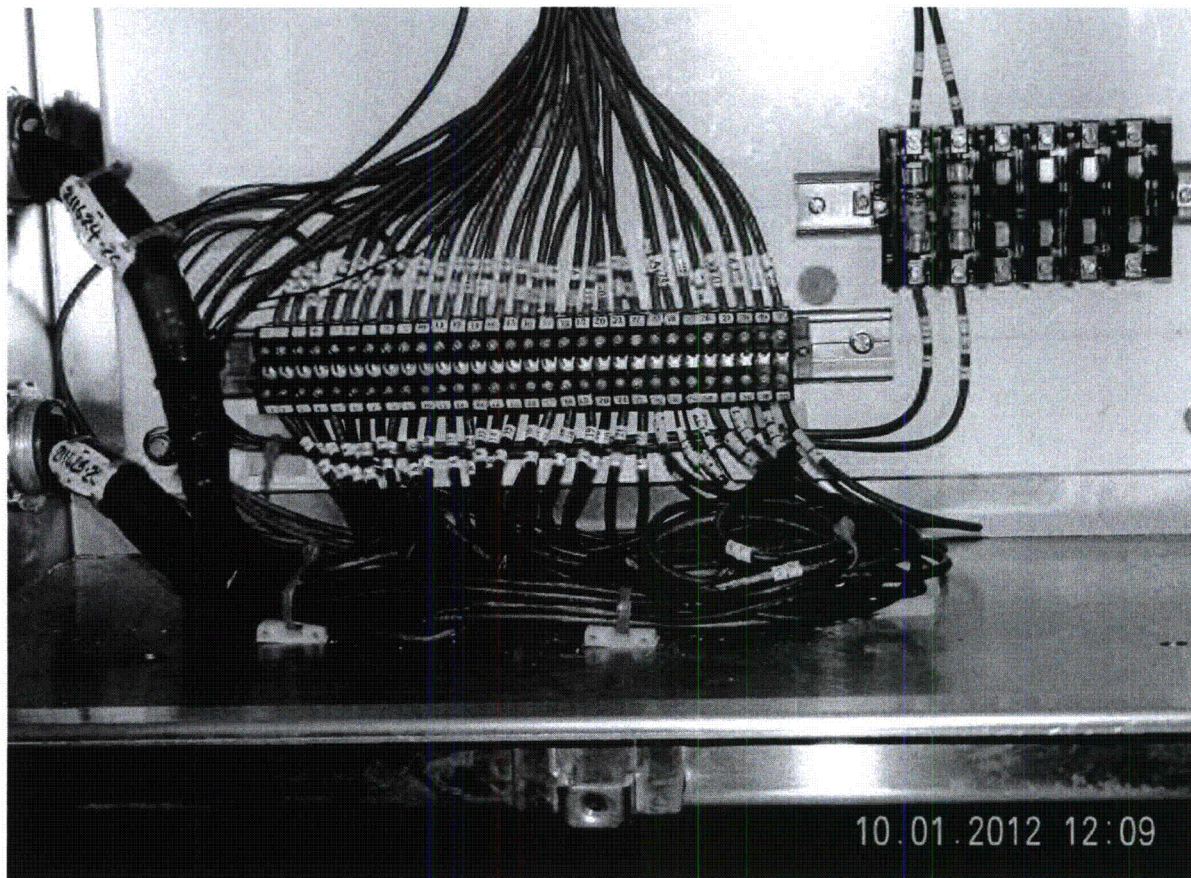


Photo 2, Close-Up of Termination Strips on Panel's Back Mounting Plate



**Seismic Walkdown Pictures**

Equipment ID No. H21P632 Equipment Class: 20 – Instrument and Control Panels

Equipment Description Dedicated Shutdown MCC 72F-4A Local Ctrl Panel

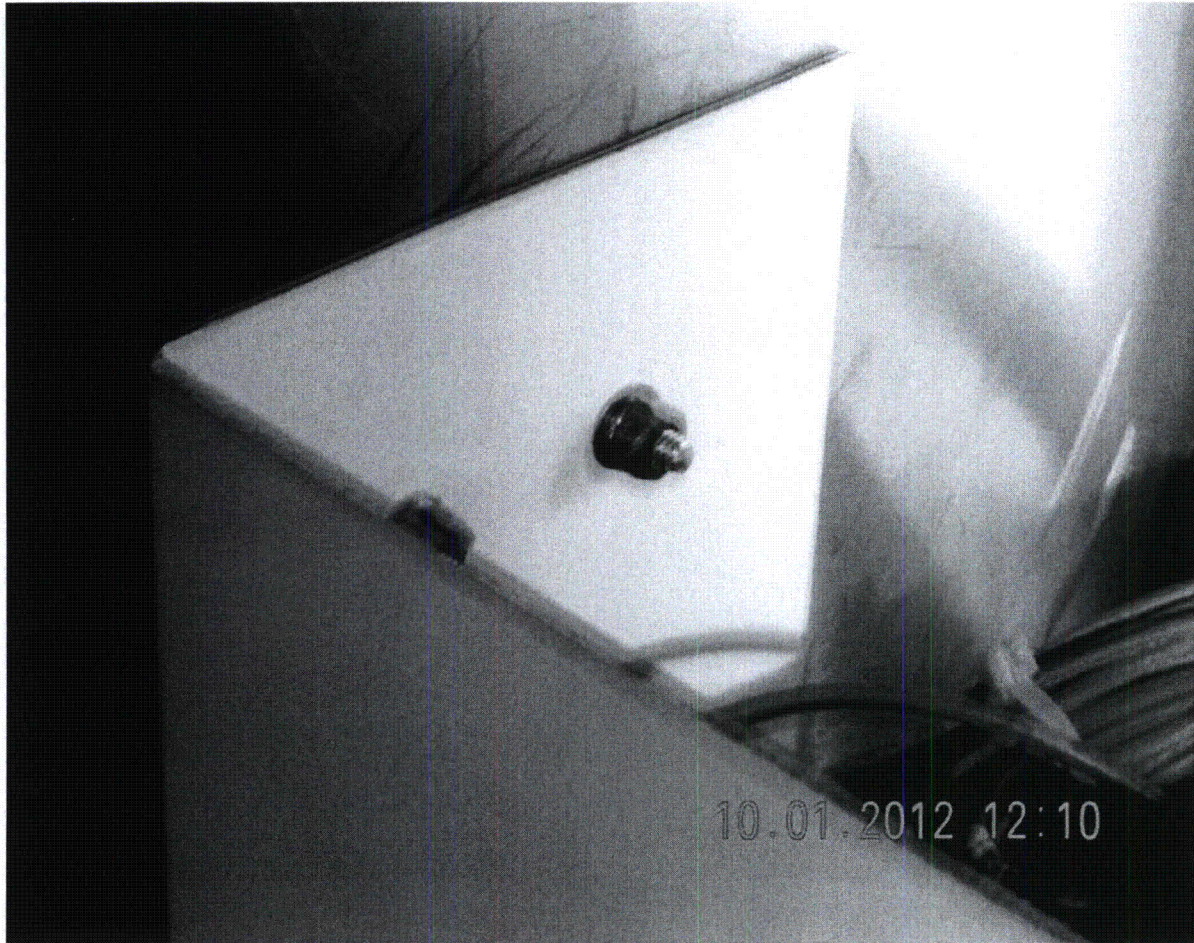


Photo 3, *Close-Up of Bolts Supporting Panel's Front Mounting Plate*

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400B001B Equip. Class<sup>1</sup> 21, Tanks and Heat Exchangers

Equipment Description EECW Div 2 Plate Frame Hx

Location: Bldg. RB Floor El. 613'-6" Room, Area A-17A, Col. E-9

Manufacturer, Model, Etc. (optional but recommended) Alfa-Laval, MX25-BFD

**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   
*Anchorage is complete and in good condition.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*Surface oxidation on some bolts is very minor and acceptable. (see Photos DSC0035 & DSC0043)*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*Anchored to steel plate, no cracks in concrete*
  
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.)  
*Bolt material on Dwg. C-4889,\*Rev. O, does not match field condition. Initiated CARD # 12-26590 to revise drawing. Per Vendor Dwg. # 32299-1862,\*Rev 1, bolts, including material, are acceptable.* DJK 10/12/12
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y  N  U   
*Anchorage is not consistent with Dwg. C-4889.\* | DJK 10/12/12*

*\* ALL DOCUMENTS REFERENCED (LATEST REVISION) HAVE BEEN REVIEWED AND NO APPLICABLE POSTINGS FOUND. ~ DJK 10/12/12*

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400B001B Equip. Class<sup>1</sup> 21, Tanks and Heat Exchangers

Equipment Description EECW Div 2 Plate Frame Hx

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*None identified. Heat exchanger is not a soft target.*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?  Y  N  U  N/A  
*No ceiling tiles or masonry block walls. All other equipment is adequately supported.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Attached lines have adequate flexibility.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*Equipment is free of potentially adverse seismic interaction.*

**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  
*1/2" ~ 3/4" clearance between heat exchanger and TubeTrack was evaluated and found not to be a concern. Because TubeTrack is well supported and the heat exchanger is rigid, during a seismic event there will not be enough movement to cause the two components to come into contact with each other. See Photos DSC0046 & DSC0048.*

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. P4400B001B Equip. Class<sup>1</sup> 21, Tanks and Heat Exchangers

Equipment Description EECW Div 2 Plate Frame Hx

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

*None.*

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*Seismic Engineer Walkdown PSE-53 Qualified*

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

*Seismic Engineer Walkdown PSE-53 Qualified*

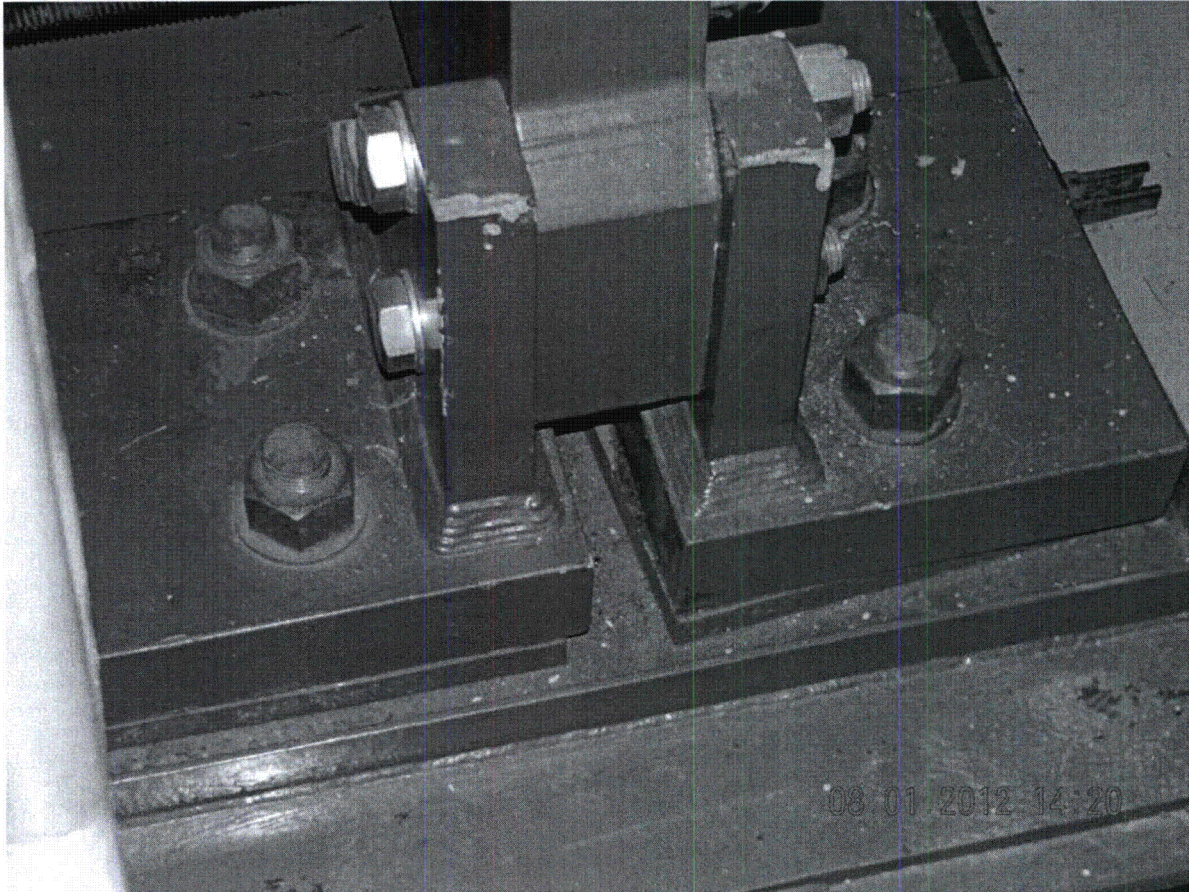
Evaluator #2 : *[Signature]* Date: *08/08/12*



**Seismic Walkdown Pictures**

Equipment ID No. P4400B001B Equipment Class: 21, Tanks and Heat Exchangers

Equipment Description EECW DIV2 Plate Frame HX



"Bolt Configuration"

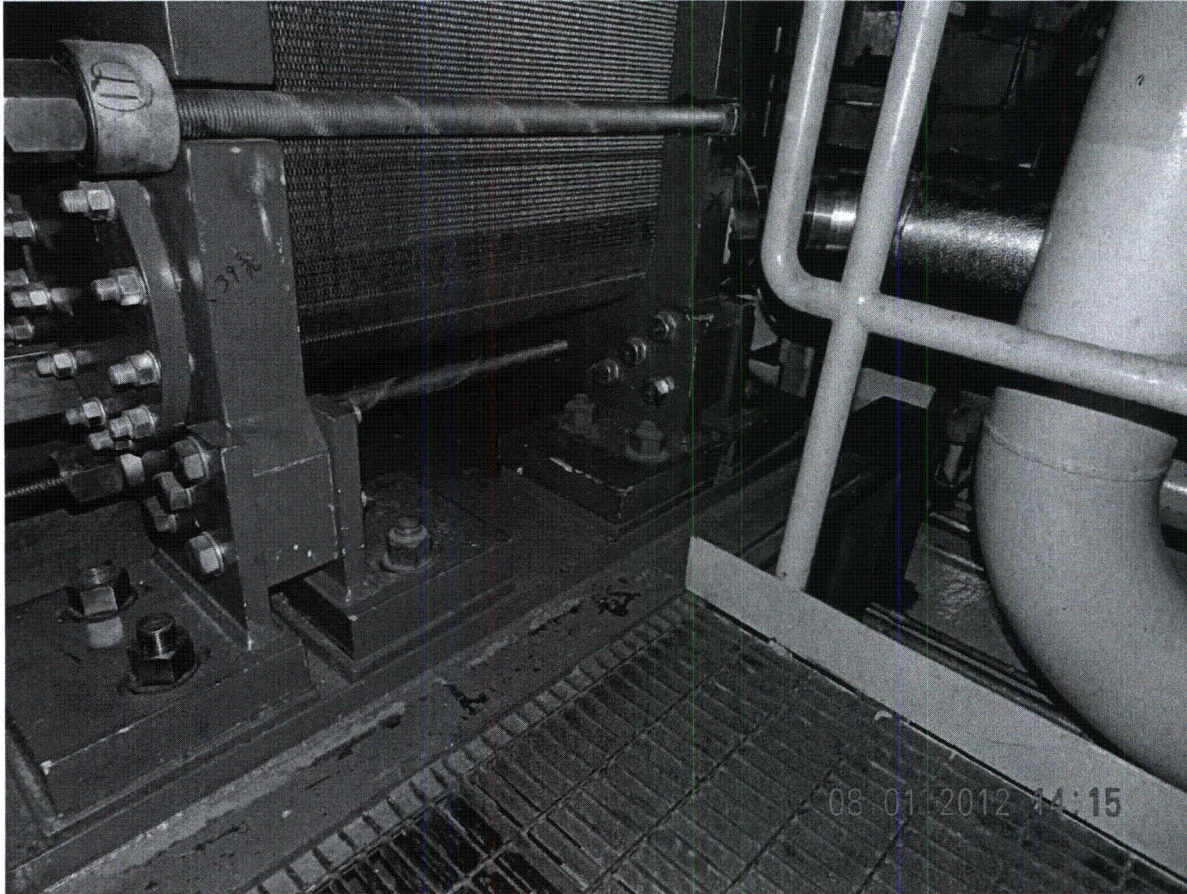
(DSCN 0043)



**Seismic Walkdown Pictures**

Equipment ID No. P4400B001B Equipment Class: 21, Tanks and Heat Exchangers

Equipment Description EECW DIV2 Plate Frame HX

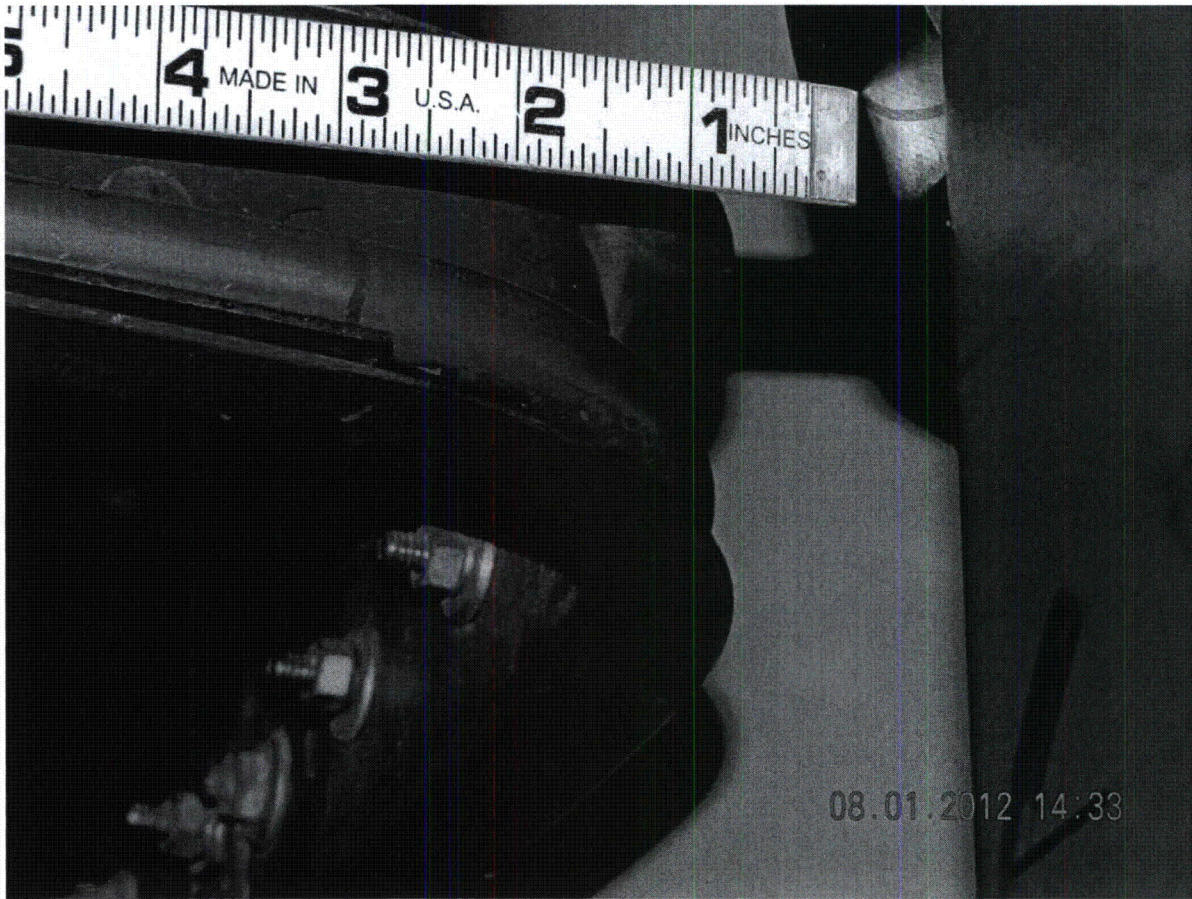


(DCSN 0035)

**Seismic Walkdown Pictures**

Equipment ID No. P4400B001B Equipment Class: 21, Tanks and Heat Exchangers

Equipment Description EECW DIV2 Plate Frame HX



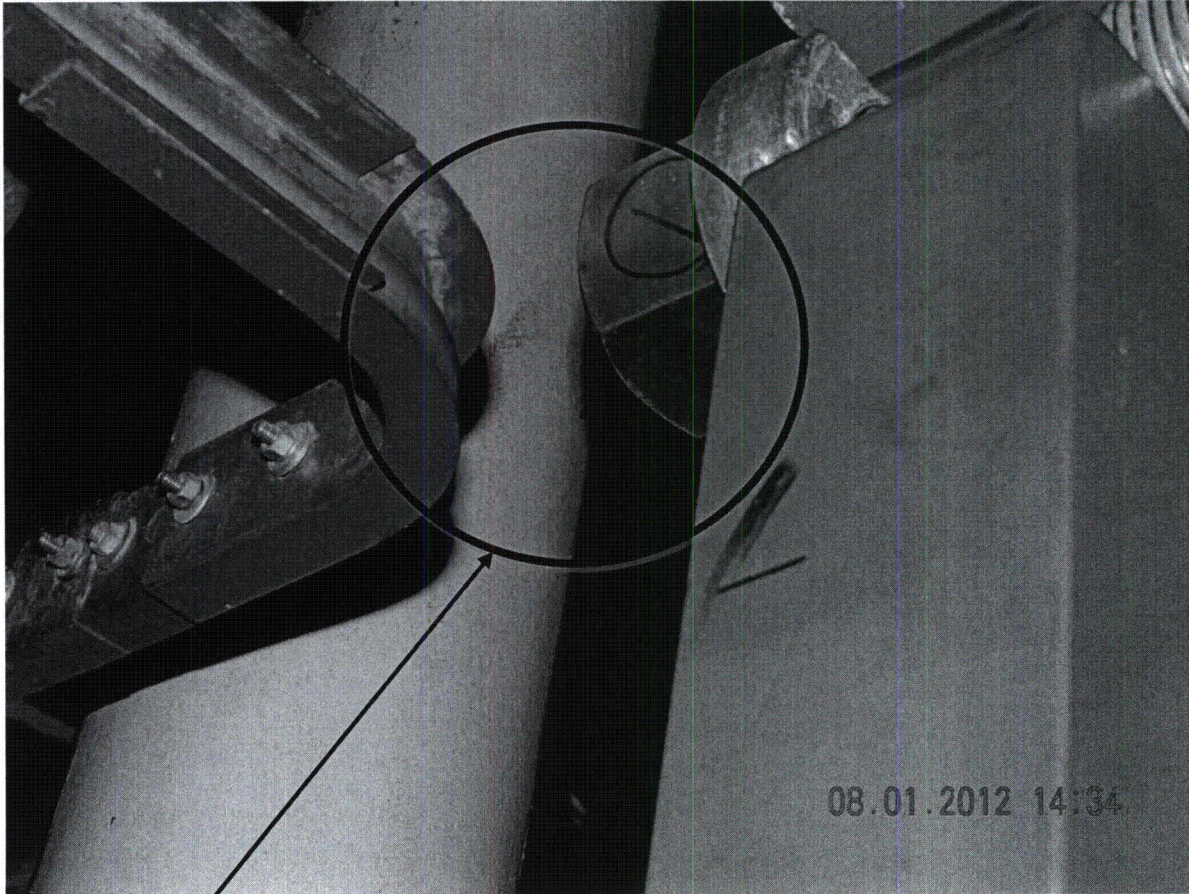
(DSCN 0046)



**Seismic Walkdown Pictures**

Equipment ID No. P4400B001B Equipment Class: 21, Tanks and Heat Exchangers

Equipment Description EECW DIV2 Plate Frame HX



(DSCN 0048)

Clearance

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400B001C Equip. Class<sup>1</sup> 21, Tanks & Heat Exchangers

Equipment Description EECW Div. I Plate Frame Backup Heat Exchanger

Location: Bldg. RB Floor El. 613'-6" Room, Area Room A-17, Col. A-12

Manufacturer, Model, Etc. (optional but recommended) Alfa-Laval, MX25-BFD

**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  
*Anchorage is in good condition.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*Some anchorage has mild surface oxidation, see photo DSC 01345.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*No cracks in the concrete.*
  
5. Is the anchorage configuration consistent with plant documentation?  
(Note: This question only applies if the item is one of the 50% for which anchorage configuration verification is required.)  
*Anchorage configuration is consistent with Dwg C-4888, Rev. A; Vendor Dwg. 32299 1862, Rev. 1; and Index Items 35556.A002, Rev. 0, & 35556.B003, Rev. 0. NO APPLICABLE POSTINGS WERE FOUND AGAINST REFERENCED DOCUMENTS.*  Y  N  U  N/A  
*/ DJK 10/12/12*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
*The anchorage is free of potentially adverse seismic conditions, see photo DSC 01348.*

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400B001C Equip. Class<sup>1</sup> 21, Tanks & Heat Exchangers

Equipment Description EECW Div. I Plate Frame Backup Heat Exchanger

---

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*No soft targets identified on heat exchanger. Nearby piping, conduits are adequately supported.*
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, lighting or masonry block walls over this equipment. All other commodities are adequately supported.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Attached lines to heat exchanger have adequate flexibility.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*The equipment is free of potentially adverse seismic interaction. See photo DSC 01346.*
- 

**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  
*None identified.*



Fermi 2 Seismic Walkdown Guidance Document  
Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3  
Status:  N  U

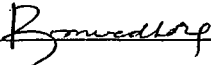
**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400B001C Equip. Class<sup>1</sup> 21, Tanks & Heat Exchangers

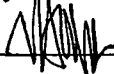
Equipment Description EECW Div. I Plate Frame Backup Heat Exchanger

Comments (Additional pages may be added as necessary)

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 :  Date: 8/15/12

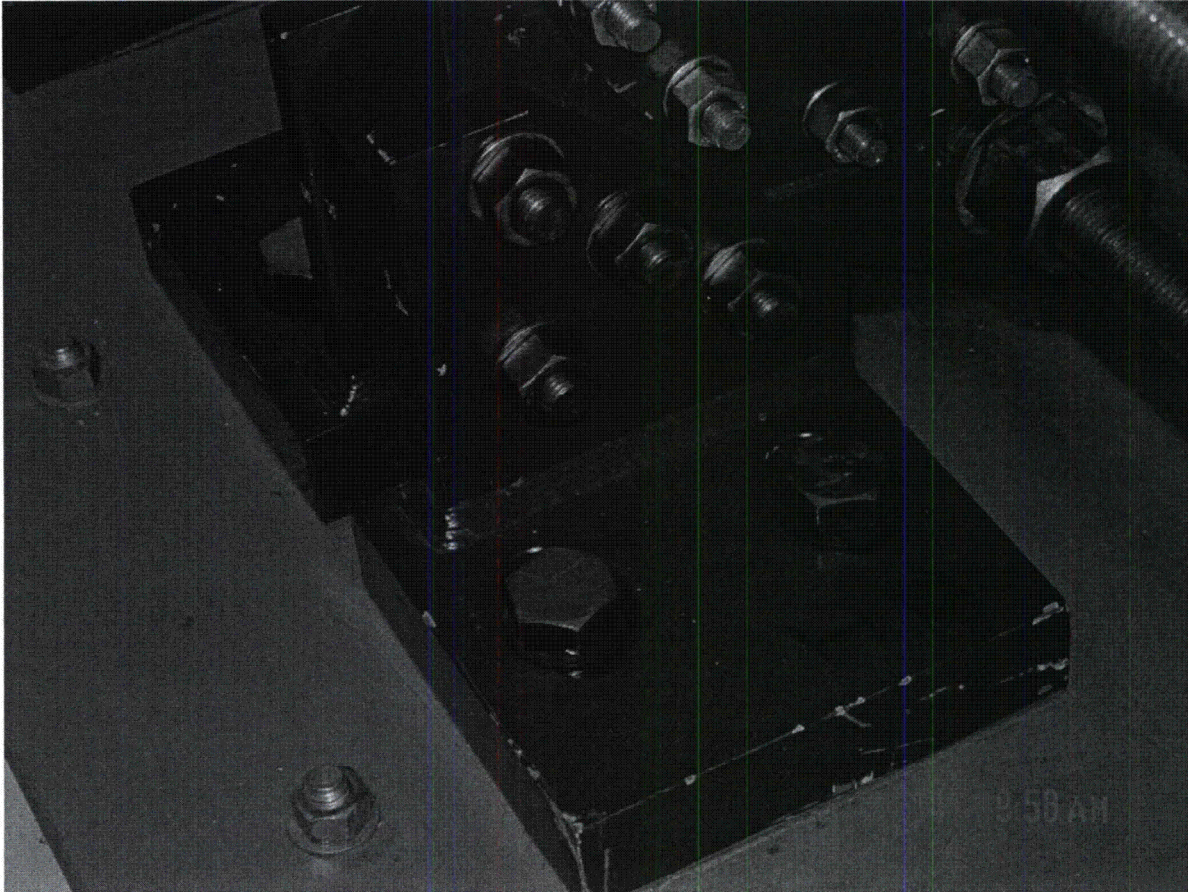
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2 :  Date: 08/15/12

**Seismic Walkdown Pictures**

Equipment ID No. P4400B001C Equipment Class: 21, Tanks and Heat Exchangers

Equipment Description EECW Div. I Plate Frame Heat Exchanger



(DSC 01345)

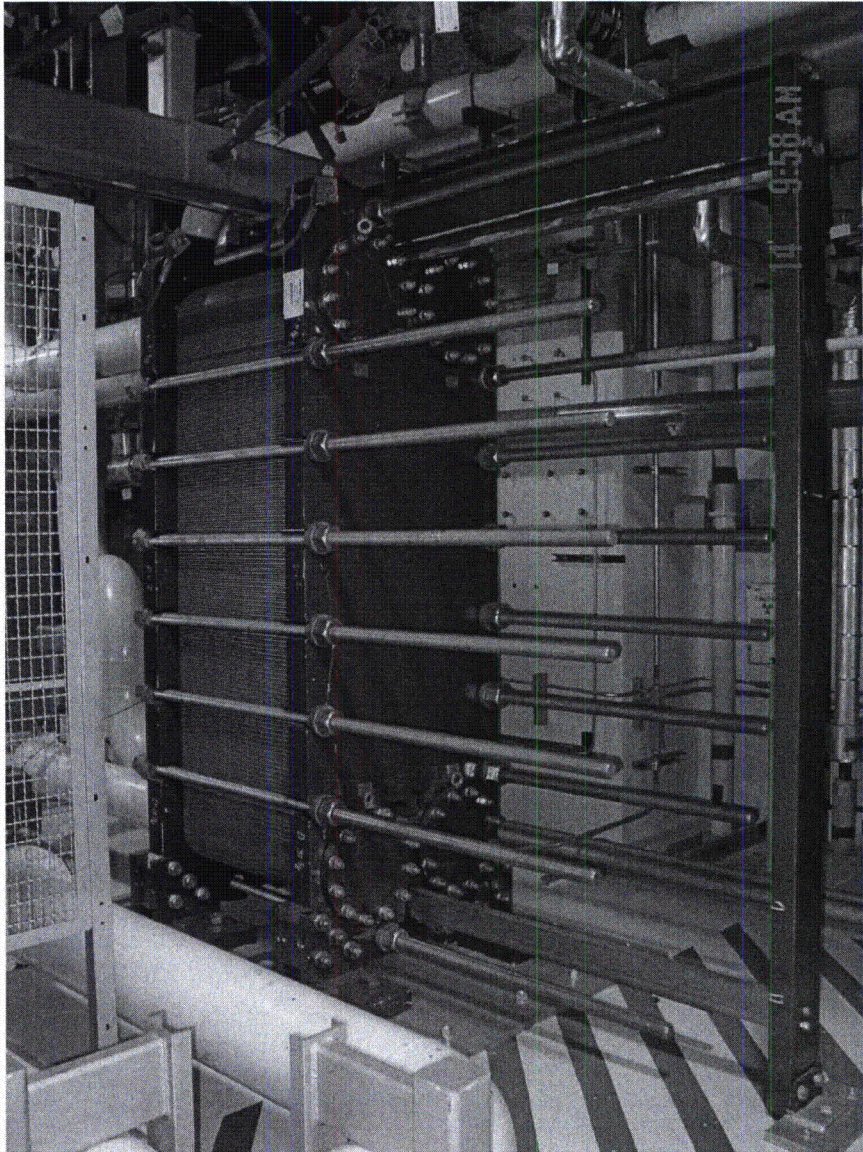
Bolt Configuration



**Seismic Walkdown Pictures**

Equipment ID No. P4400B001C Equipment Class: 21, Tanks and Heat Exchangers

Equipment Description EECW Div. I Plate Frame Heat Exchanger



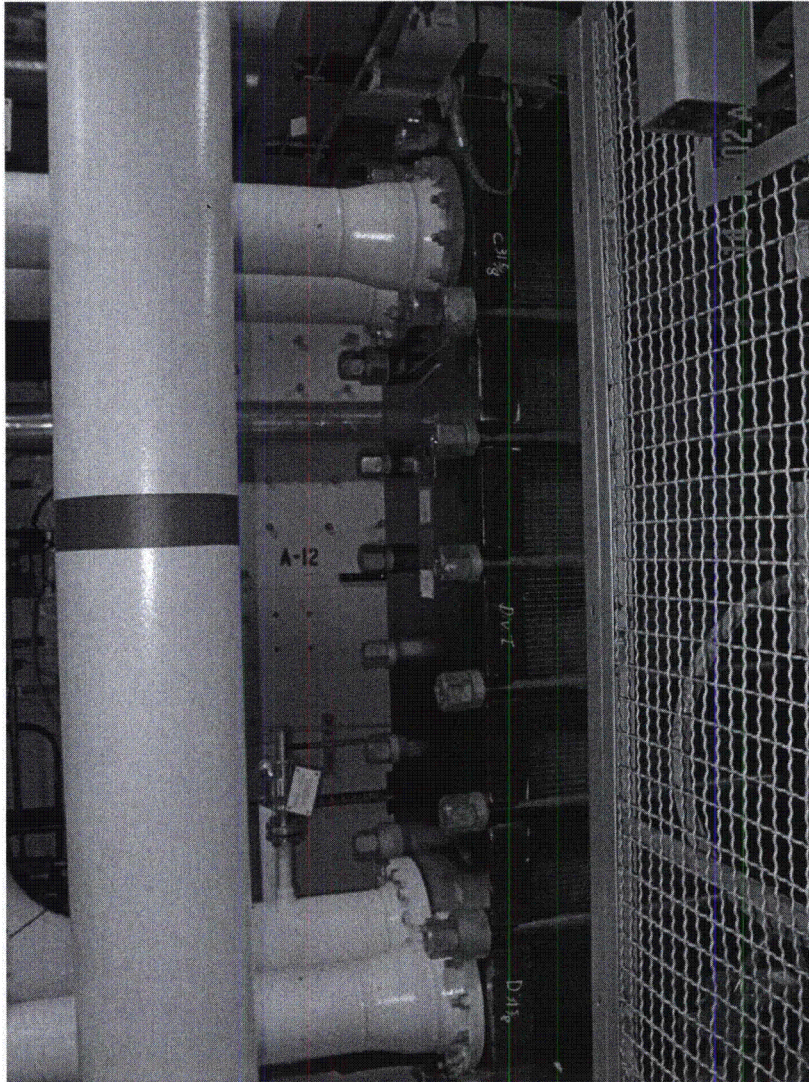
(DSC 01346)



**Seismic Walkdown Pictures**

Equipment ID No. P4400B001C Equipment Class: 21, Tanks and Heat Exchangers

Equipment Description EECW Div. I Plate Frame Heat Exchanger



(DSC 01348)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400C001A Equip. Class<sup>1</sup> 5, Horizontal Pumps

Equipment Description Emergency Equipment Cooling Water Div.I Pump

Location: Bldg. RB Floor El. 613'-6" Room, Area A-17, Col. A-15

Manufacturer, Model, Etc. (optional but recommended) Goulds, Model 3410M

**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  
*Anchorage is in good condition.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*No corrosion is present.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*No cracks in concrete pad or floor.*
  
5. Is the anchorage configuration consistent with plant documentation?  Y  N  U  N/A  
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)  
*Anchorage configuration is consistent with Dwg. M-2196, Rev. I (no postings); and Calc. DC-3076, Rev. A (postings Vol. II DCD, Rev. 0, and TCEDP 33703.003, Rev. 0).*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
*Anchorage is free of potentially adverse seismic conditions.*

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400C001A Equip. Class<sup>1</sup> 5, Horizontal Pumps

Equipment Description Emergency Equipment Cooling Water Div.I Pump

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Nearby equipment is adequately supported to avoid interaction with the pump as shown in Photo 015.JPG.*
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. Light is adequately supported.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Attached lines have adequate flexibility to avoid damage during seismic event. See Photo 016.JPG for condition of pump's flex hoses.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*Equipment and adjacent commodities are adequately supported and free of potentially adverse seismic interaction conditions. See Photo 017.JPG for overall view of nearby commodities.*

**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 conditions found that could adversely affect equipment safety functions.*



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. P4400C001A Equip. Class<sup>1</sup> 5, Horizontal Pumps

Equipment Description Emergency Equipment Cooling Water Div. I Pump

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

*N/A*

---

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1: *[Signature]* Date: 8-16-12

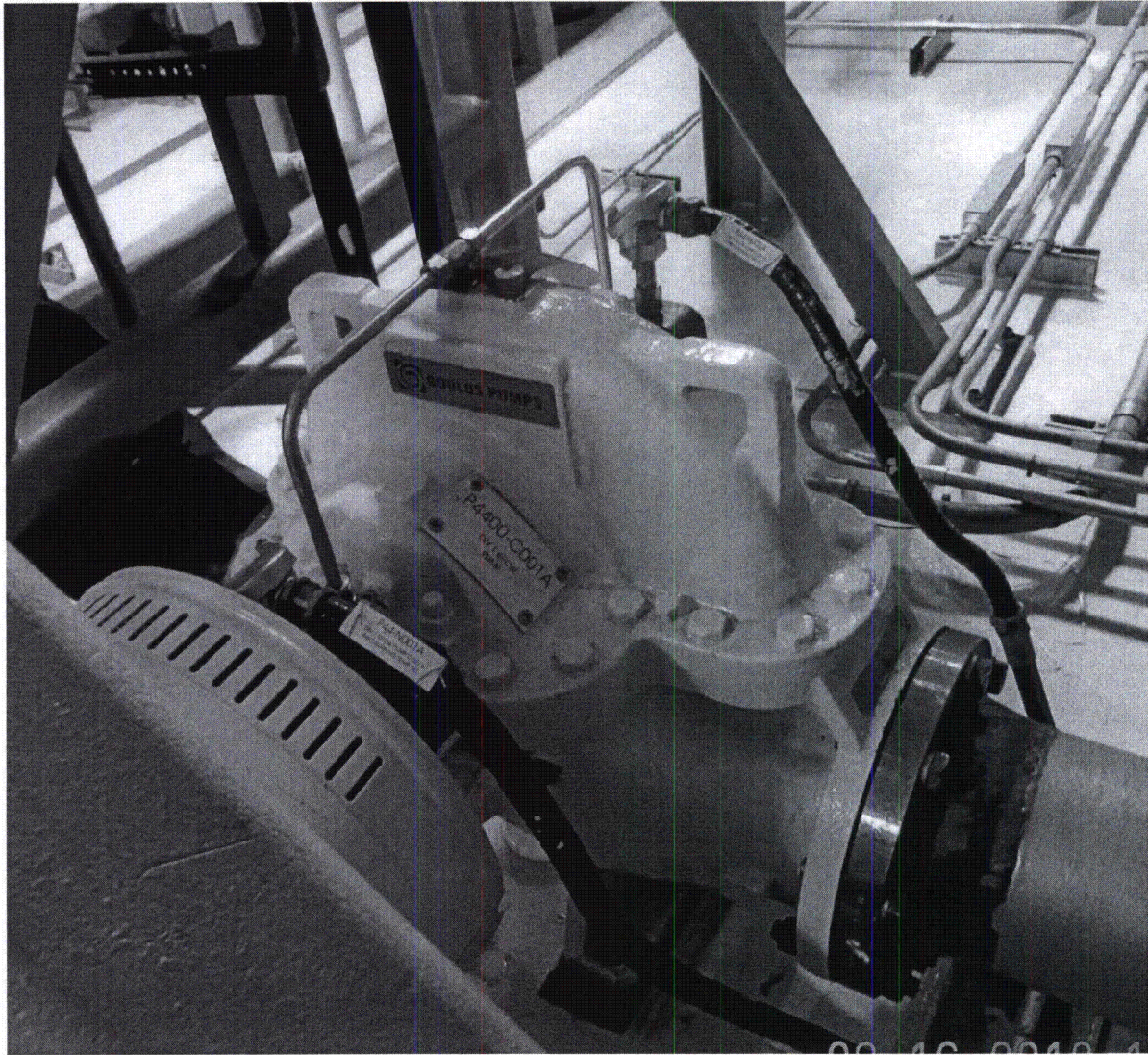
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: *[Signature]* Date: 08/16/12

**Seismic Walkdown Pictures**

Equipment ID No. P4400C001A Equipment Class: 5, Horizontal Pumps

Equipment Description Emergency Equipment Cooling Water DIV 1 Pump



(016.JPG)



**Seismic Walkdown Pictures**

Equipment ID No. P4400C001A Equipment Class: 5, Horizontal Pumps

Equipment Description Emergency Equipment Cooling Water DIV 1 Pump



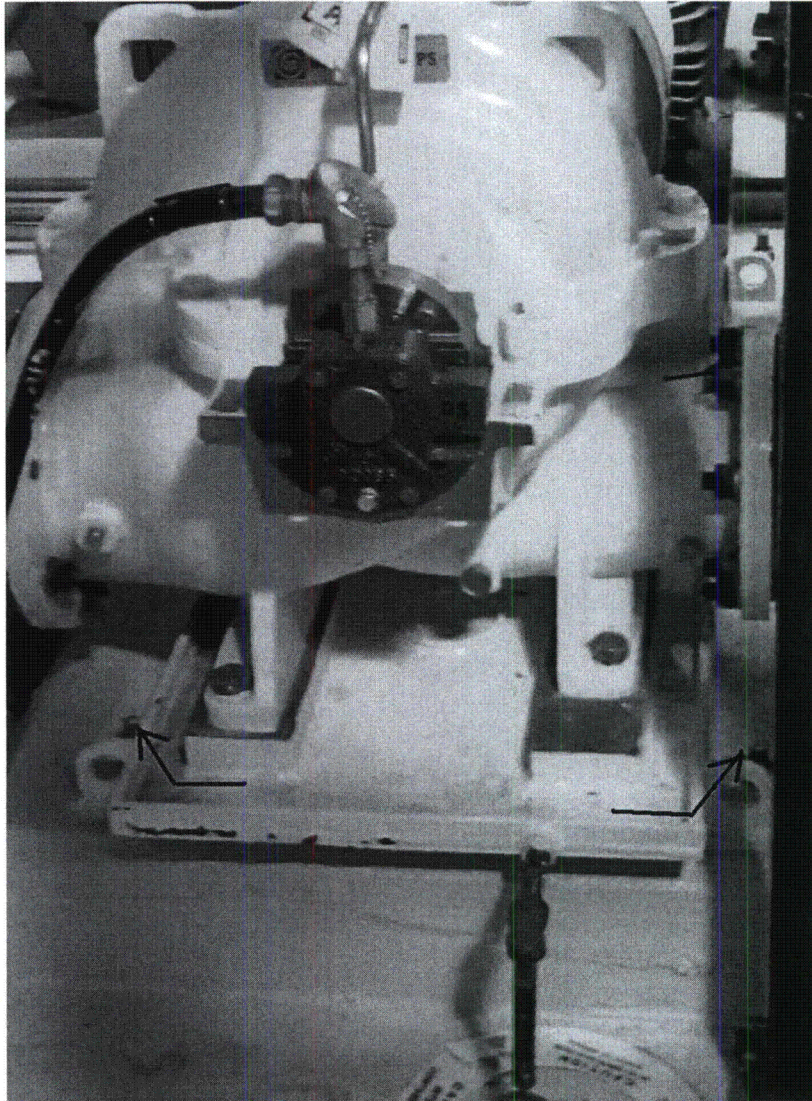
(017.JPG)



**Seismic Walkdown Pictures**

Equipment ID No. P4400C001A Equipment Class: 5, Horizontal Pumps

Equipment Description Emergency Equipment Cooling Water DIV 1 Pump



(015.JPG, Bolt to Concrete Pad)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400F601B Equip. Class<sup>1</sup> 8, Motor-Operated & Solenoid-Operated Valves

Equipment Description RBCCW Div 2, Rtrn ISO Mov (EL 600'-0")

Location: Bldg. RB Floor El. 583'-6" Room, Area Room A-12, Col F-10

Manufacturer, Model, Etc. (optional but recommended) POWELL 3023WE/Limit Torque SMB-00

**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 bolts to verify. Valve is welded in line with full penetration groove welds.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*Mild corrosion (no noticeable loss of cross-section) on one or two bolts securing operator & valve. Other bolts have no corrosion or very light corrosion. (See Photos DSC00385 & 386)*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*See above. (Item #2)*
  
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.)*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y  N  U   
*No adverse conditions were identified.*

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400F601B Equip. Class<sup>1</sup> 8, Motor-Operated & Solenoid-Operated Valves

Equipment Description RBCCW Div 2, Rtrn ISO Mov (EL 600'-0")

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**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Few soft targets exist and where they do exist, none are near a potential threat.*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?  Y  N  U  N/A  
*No overhead ceiling tiles and no nearby block walls. Lighting is NOT above valve and is well supported. (See Photo DSC00386)*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Flex hose is connected to the valve operator/motor and has adequate flexibility.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*The valve is free of potentially adverse seismic interaction*
- 

**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 conditions identified that could be considered adverse seismic conditions.*



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. P4400F601B Equip. Class<sup>1</sup> 8, Motor-Operated & Solenoid-Operated Valves

Equipment Description RBCCW Div 2, Rtrn ISO Mov (EL 600'-0")

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

*None.*

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 :  Date: 08/06/12

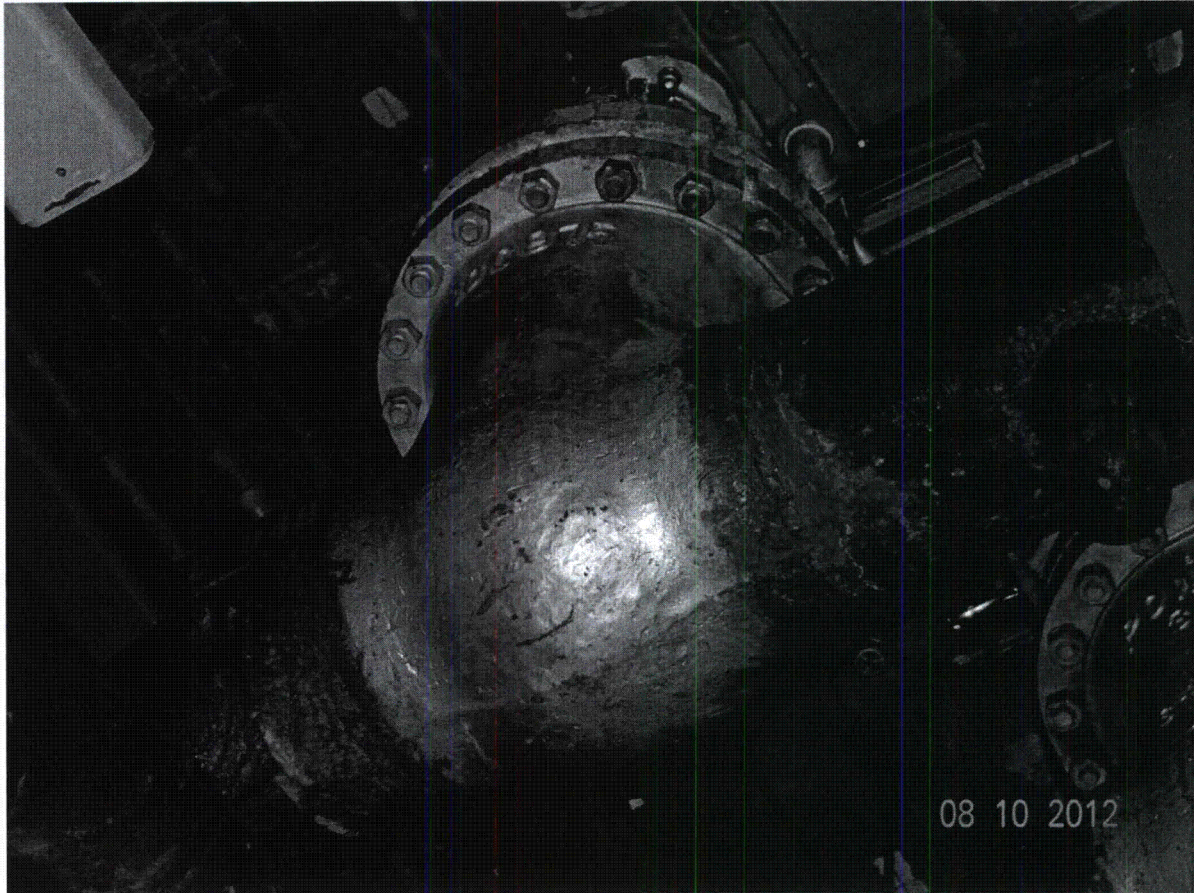
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2 :  Date: 8/6/12

**Seismic Walkdown Pictures**

Equipment ID No. P4400F601B Equipment Class: 8, Motor-Operated & Solenoid-Operated Valves

Equipment Description RBCCW DIV2 Return Isolation MOV



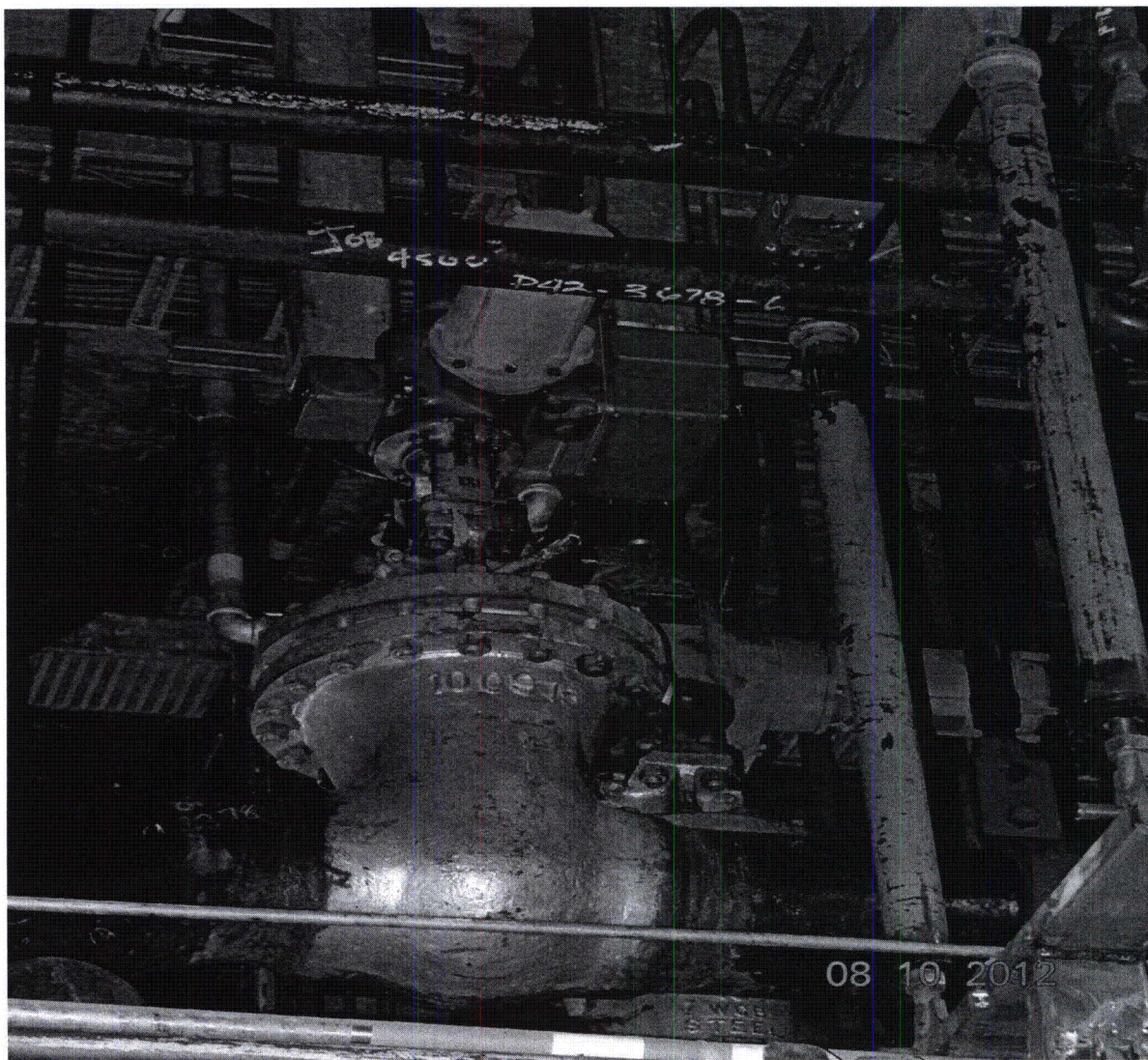
(DSC00385)



**Seismic Walkdown Pictures**

Equipment ID No. P4400F601B Equipment Class: 8, Motor-Operated & Solenoid-Operated Valves

Equipment Description RBCCW DIV2 Return Isolation MOV



(DSC00386)



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400F603B Equip. Class<sup>1</sup> 8, Motor Operated and Solenoid Operated Valves

Equipment Description RBCCW Div. II Supply Isolation MOV

Location: Bldg. RB Floor El. 583'-6" Room, Area A-12, Col. F-10

Manufacturer, Model, Etc. (optional but recommended) Powell Gate Valve, 3023 WE; Limitorque Operator SB-0

**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 bolts to verify, valve is welded in line with full penetration groove welds.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*Mild corrosion on several bolts (no noticeable loss of cross section) securing operator to valve. Other bolts have none or very little corrosion. See Photo DSC00199.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*See response to Question #2, above.*
  
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which anchorage configuration verification is required.) Y  N  U  N/A
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y  N  U   
*No adverse conditions were identified.*

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P4400F603B Equip. Class<sup>1</sup> 8, Motor Operated and Solenoid Operated Valves

Equipment Description RBCCW Div. II Supply Isolation MOV

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**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*No impact sources were identified within striking distance of valve.*
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 or lights above this valve. There are no nearby block walls. See Photo DSC 00200.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Electrical connections to valve operator have adequate flexibility. See flex conduit in Photo DSC 00199.*
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  
*No other adverse condition were identified that could be considered adverse.*

**Seismic Walkdown Checklist (SWC)**

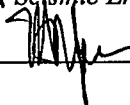
Equipment ID No. P4400F603B Equip. Class' 8, Motor Operated and Solenoid Operated Valves

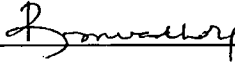
Equipment Description RBCCW Div. II Supply Isolation MOV

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

*None.*

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*Seismic Engineer Walkdown PSE-53 Qualified*  
Evaluator #1 :  Date: 08/16/12

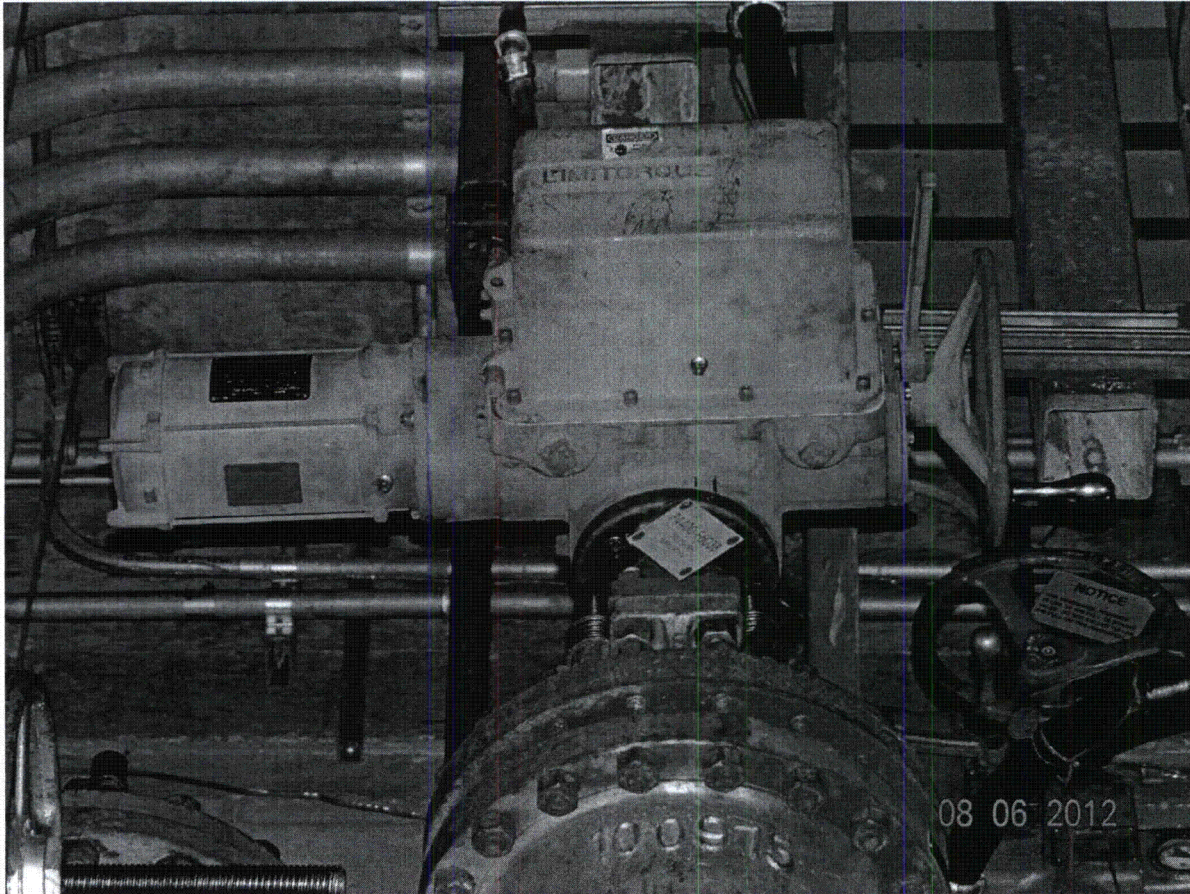
*Seismic Engineer Walkdown PSE-53 Qualified*  
Evaluator #2 :  Date: 8-6-12



**Seismic Walkdown Pictures**

Equipment ID No. P4400F603B Equipment Class: 8, Motor/Solenoid Operated Valves

Equipment Description RBCCW Div. II Supply Isolation MOV



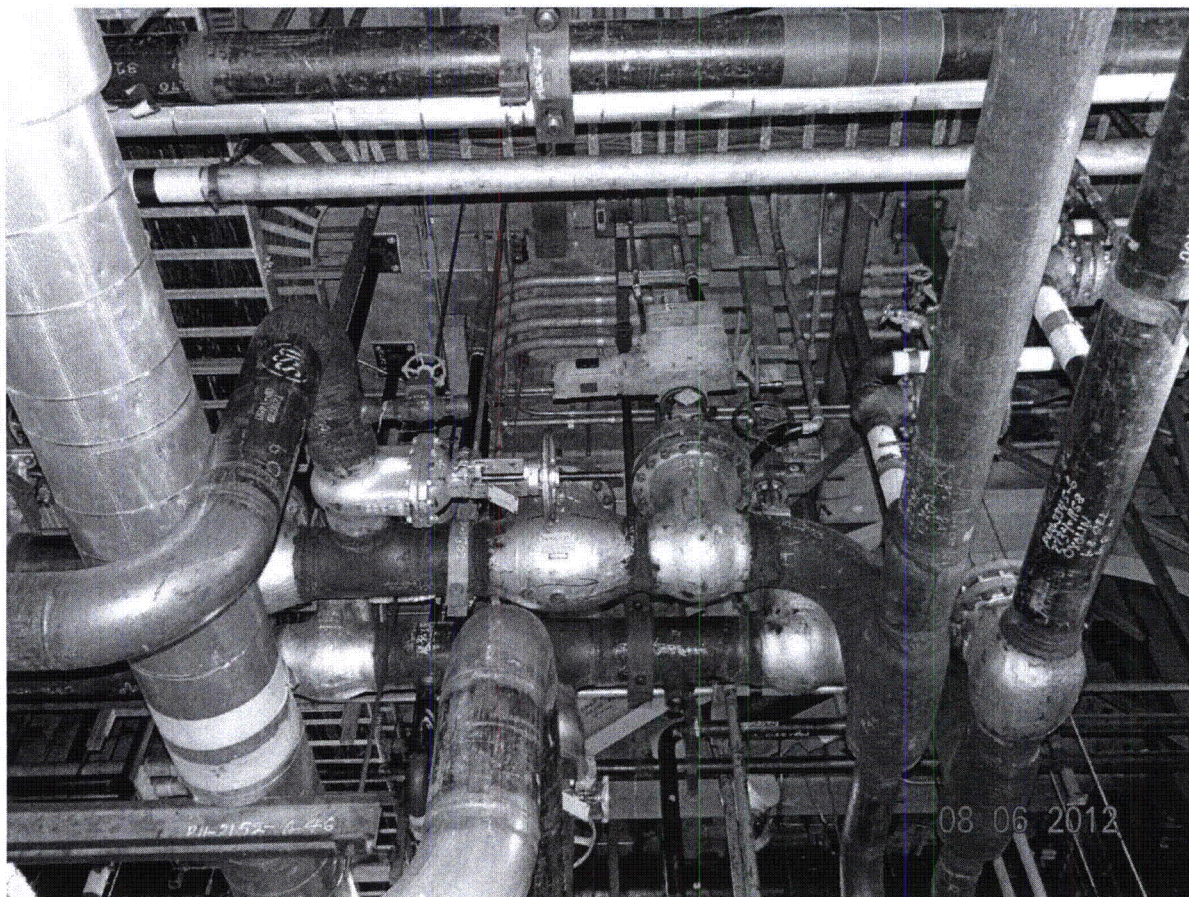
(DSC00199)



**Seismic Walkdown Pictures**

Equipment ID No. P4400F603B Equipment Class: 8, Motor/Solenoid Operated Valves

Equipment Description RBCCW Div. II Supply Isolation MOV



(DSC00200)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F400A Equip. Class<sup>1</sup> 7, Pneumatic Operated Valves

Equipment Description EECW Div I HX Outlet Temp Ctrl AOV (Valve)

Location: Bldg. RB Floor El. 613'-6" Room, Area Room A-17, Col. B-12

Manufacturer, Model, Etc. (optional but recommended) Control Components Inc., 100D

**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 bolts, valve is attached to pipe, not to building structure.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*No bolts.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*No bolts.*
  
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.)  
*No bolt configuration requiring verification.*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y  N  U   
*No anchorage configuration issues identified during Walkdown.*

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



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F400A Equip. Class<sup>1</sup> 7, Pneumatic Operated Valves

Equipment Description EECW Div I HX Outlet Temp Ctrl AOV (Valve)

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Valve is within the enclosed cage. See Photos DSC 01338 & 01349.*
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, block walls or lighting near this asset.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Attached lines have adequate flexibility. No issues.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*Southwest leg of cage is 1/4" from pipe containing Valve P44F400A (see Photo 1). Pipe is well-supported to prevent movement toward cage. Since the cage is light and its frame is rigid (2x2x1/8 structured tubing), 15" above the floor, seismic movement toward the pipe will be negligible. Therefore, clearance is acceptable.*  
  
*Top of cage is 3/8" below tubing on Valve P44F400A (see Photo 2). Tubing is well supported to prevent movement toward cage. Since cage is light and attached to floor with eight anchor bolts, sliding or upward movement during an earthquake is not possible. Therefore, clearance 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  
*No other seismic conditions found that affect the safety functions of the equipment.*

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. P44F400A Equip. Class<sup>1</sup> 7, Pneumatic Operated Valves

Equipment Description EECW Div I HX Outlet Temp Ctrl AOV (Valve)

Comments (Additional pages may be added as necessary)

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1: *P. Bonadello* Date: 8/15/12

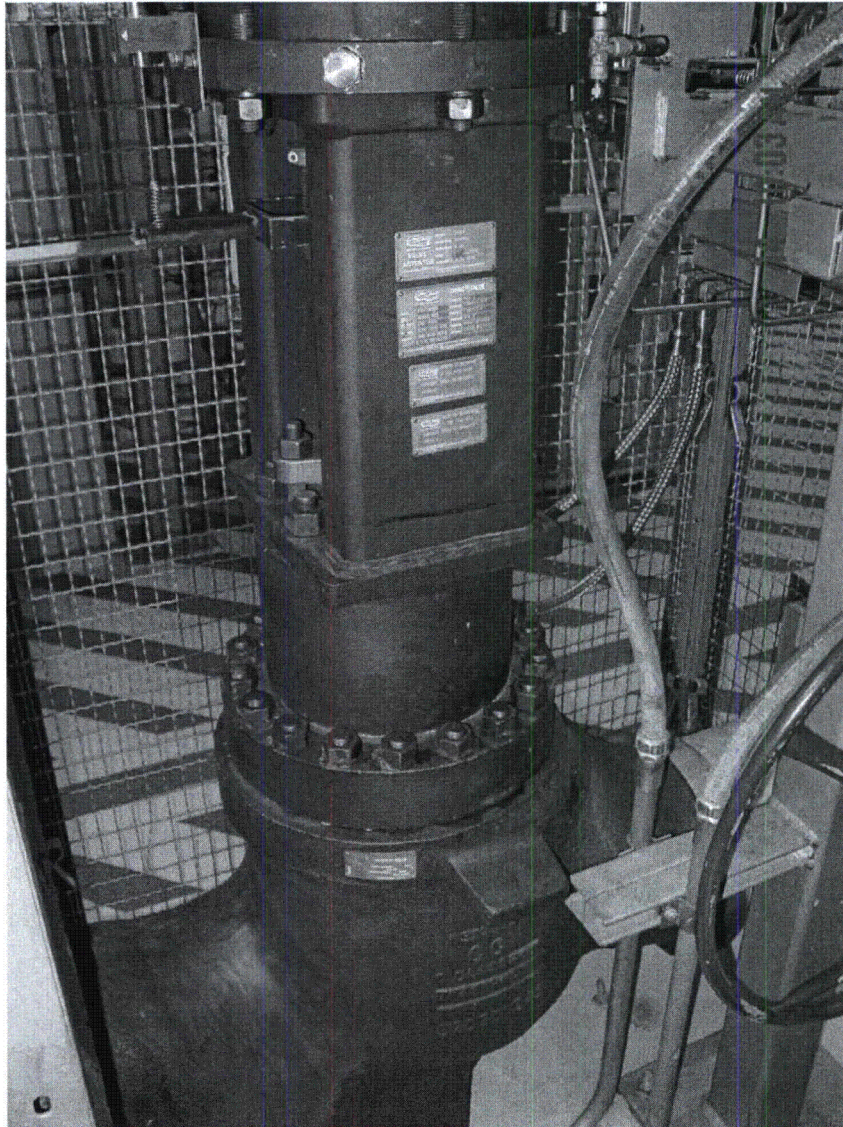
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: *[Signature]* Date: 08/15/12

**Seismic Walkdown Pictures**

Equipment ID No. P44F400A Equipment Class: 7, Pneumatic Operated Valves

Equipment Description EECW Div. I HX Outlet Temp Ctrl AOV (valve)



(DSC 01349)



**Seismic Walkdown Pictures**

Equipment ID No. P44F400A Equipment Class: 7, Pneumatic Operated Valves

Equipment Description EECW Div. I HX Outlet Temp Ctrl AOV (valve)



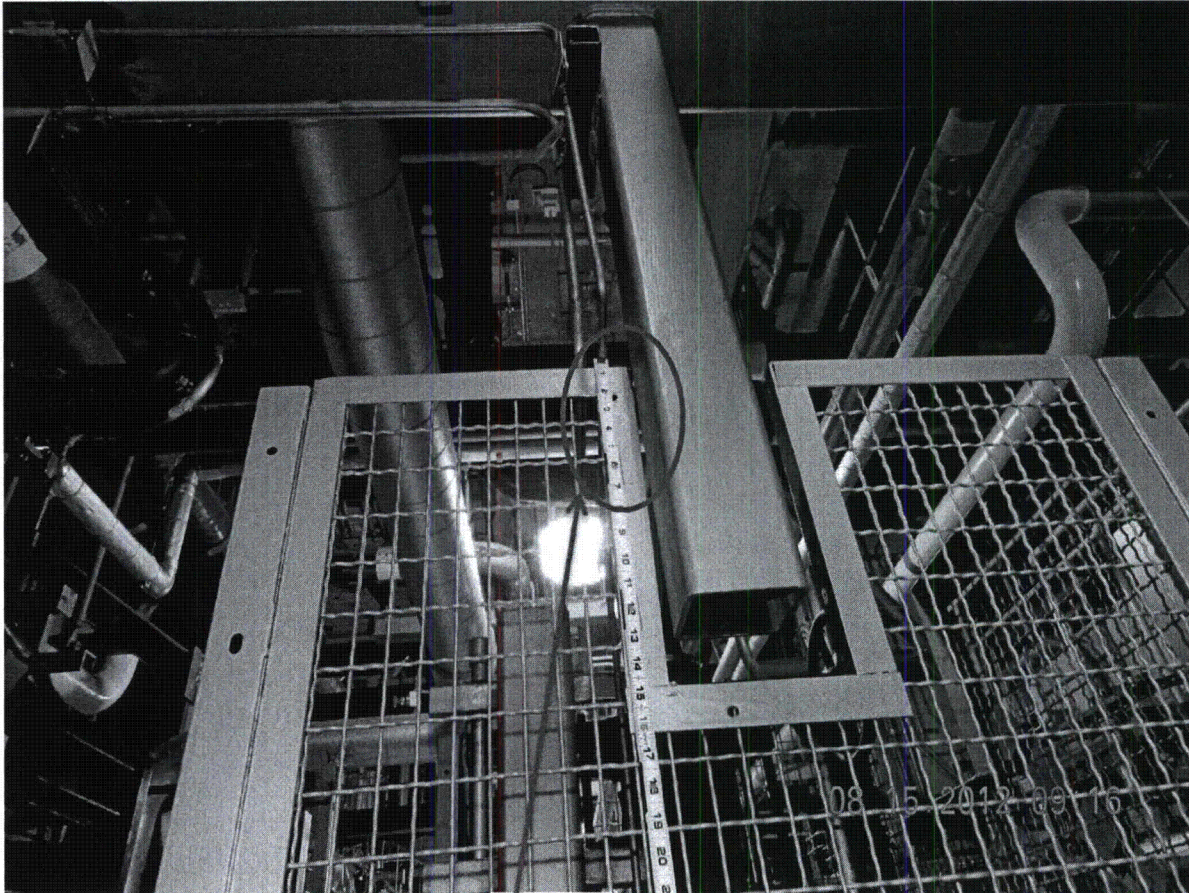
(DSC 01338)



**Seismic Walkdown Pictures**

Equipment ID No. P44F400A Equipment Class: 7, Pneumatic Operated Valves

Equipment Description EECW Div. I HX Outlet Temp Ctrl AOV (valve)



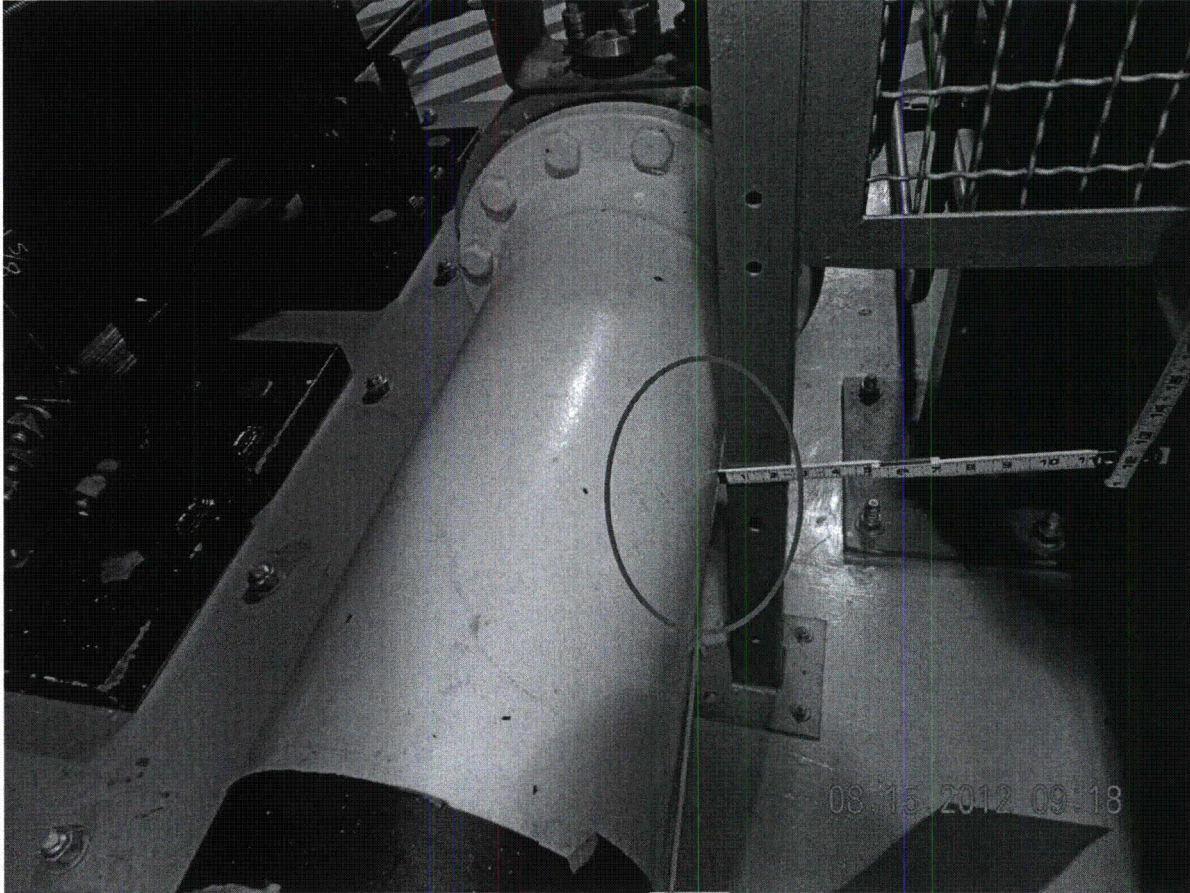
(Photo 2)

Tubing Close to Cage

**Seismic Walkdown Pictures**

Equipment ID No. P44F400A Equipment Class: 7, Pneumatic Operated Valves

Equipment Description EECW Div. I HX Outlet Temp Ctrl AOV (valve)



(Photo 1)

Pipe Close to Cage



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F402A Equip. Class<sup>1</sup> 7, Pneumatic Operated Valve

Equipment Description V8-2364 Level Control AOV

Location: Bldg. RB Floor El. 613'-6" Room, Area Room A-17, Col. A-15

Manufacturer, Model, Etc. (optional but recommended) Fisher Controls, 667NS-ET

**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   
*This equipment is a valve and is secured to piping, not the building structure. See Photo 006.jpg. Bolts securing valve to pipe are in good condition.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*No anchorage.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*No anchorage.*
  
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which anchorage configuration verification is required.) Y  N  U  N/A   
*No anchorage configuration verification required.*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y  N  U   
*No anchorage evaluation required for air operated valve, however bolts securing valve to pipe are in good condition. See photo 006.jpg.*

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

Fermi 2 Seismic Walkdown Guidance Document  
Seismic Walkdown Checklist

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Sheet 2 of 3  
Status: Y  N  U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F402A Equip. Class<sup>1</sup> 7, Pneumatic Operated Valve

Equipment Description V8-2364 Level Control AOV

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Valve is surrounded by well-built and well-anchored structures and equipment, i.e., Column A15, EECW make-up tank, and instrument rack H21P447. This equipment and these structures will not impact the valve and function as a protective barrier around the valve.*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?  Y  N  U  N/A  
*Overhead light is adequately supported. No ceiling tiles and no block walls within 10'-0" of valve.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Attached lines have adequate flexibility.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U

**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  
*Unistrut was found to be in close contact with the bottom of valve P4400F122A. See Photo 012.jpg. CARD 12-26921 was initiated to investigate and resolve this matter.*

Fermi 2 Seismic Walkdown Guidance Document  
Seismic Walkdown Checklist

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Sheet 3 of 3  
Status: Y N U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F402A Equip. Class<sup>1</sup> 7, Pneumatic Operated Valve

Equipment Description V8-2364 Level Control AOV

Comments (Additional pages may be added as necessary)

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 : *R. G. M. H. H. H.* Date: 8/21/12

*Seismic Engineer Walkdown PSE-53 Qualified*

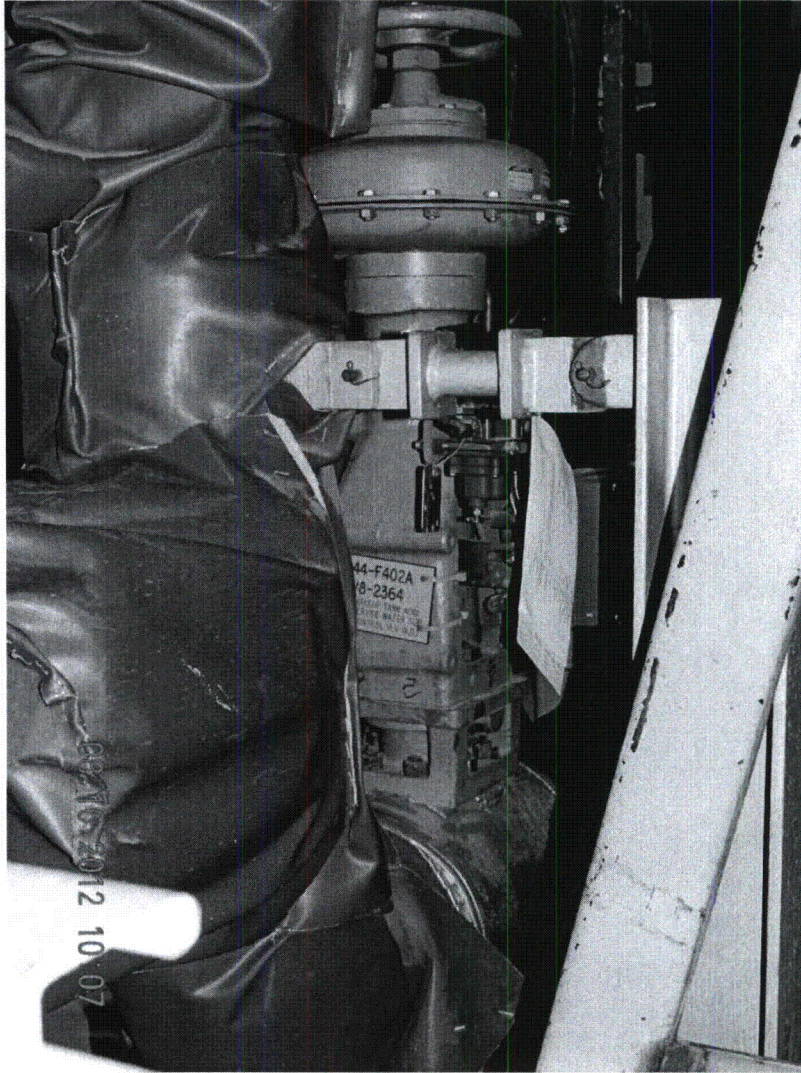
Evaluator #2 : *[Signature]* Date: 08/21/12



**Seismic Walkdown Pictures**

Equipment ID No. P44F402A Equipment Class: 7, Pneumatic Operated Valves

Equipment Description V8-2364 Level Control AOV

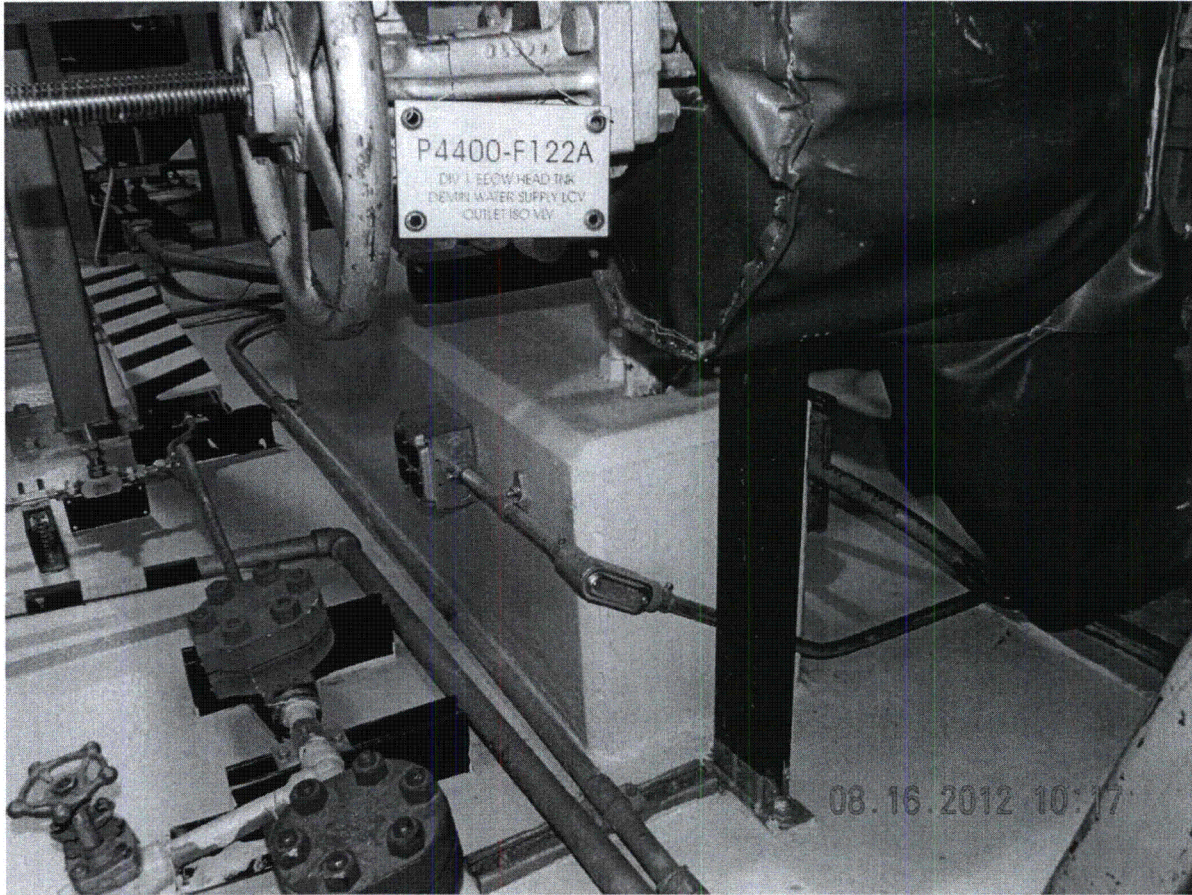


(Photo 006.JPG)

**Seismic Walkdown Pictures**

Equipment ID No. P44F402A Equipment Class: 7, Pneumatic Operated Valves

Equipment Description V8-2364 Level Control AOV



(Photo 012.JPG)



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F402B Equip. Class<sup>1</sup> 7, Pneumatic Operated Valves

Equipment Description EECW M/U Tank A002 Div.2 V8-2362 Lvl Ctrl AOV

Location: Bldg. RB Floor El. 613'-6" Room, Area A-17, Col D-9

Manufacturer, Model, Etc. (optional but recommended) Fisher Controls (Actuator Valve), ET-667NS-3582 (valve) & 667NS-ET (actuator)

**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 anchorage. Valve is attached to piping, not to building structure.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*No anchorage.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*No anchorage.*
  
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 verification is not required.*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
*Though an anchorage evaluation was not required, no adverse anchorage conditions were identified. See Photo DSC 01024.*

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



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F402B Equip. Class<sup>1</sup> 7, Pneumatic Operated Valves

Equipment Description EECW M/U Tank A002 Div.2 V8-2362 Lvl Ctrl AOV

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*There is no nearby equipment, piping or conduit that could impact the valve.*
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  
*HVAC, cable trays, piping, and conduits are adequately supported. There are no ceiling tiles, lighting or block walls in this area. See Photo DSC 01029.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Lines attached to the valve have adequate flexibility. See Photo DSC 01022.*
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  
*The Seismic Walkdown Team noticed a potential seismic clearance issue between the Div. 2 EECW Head Tank's 4" demin water line and its 2" pressure relief line. It was determined that the line beyond Valve P44F402B @ Elev. 615'-0" (4" demin water shown on Dwg. M-2152) is Group "D". Also, since the 2" dia. line is Group "D", i.e., not safety related, there are no seismic concerns.*

*Dwg M-2152, REV. ✓ HAS NO POSTINGS ~ DSK 10/12/12*

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Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3  
Status:  N  U

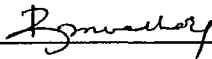
**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44F402B Equip. Class<sup>1</sup> 7, Pneumatic Operated Valves

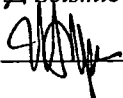
Equipment Description EECW M/U Tank A002 DIV 2 V8-2362 Lvl Ctrl AOV

Comments (Additional pages may be added as necessary)

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1:  Date: 8/31/12

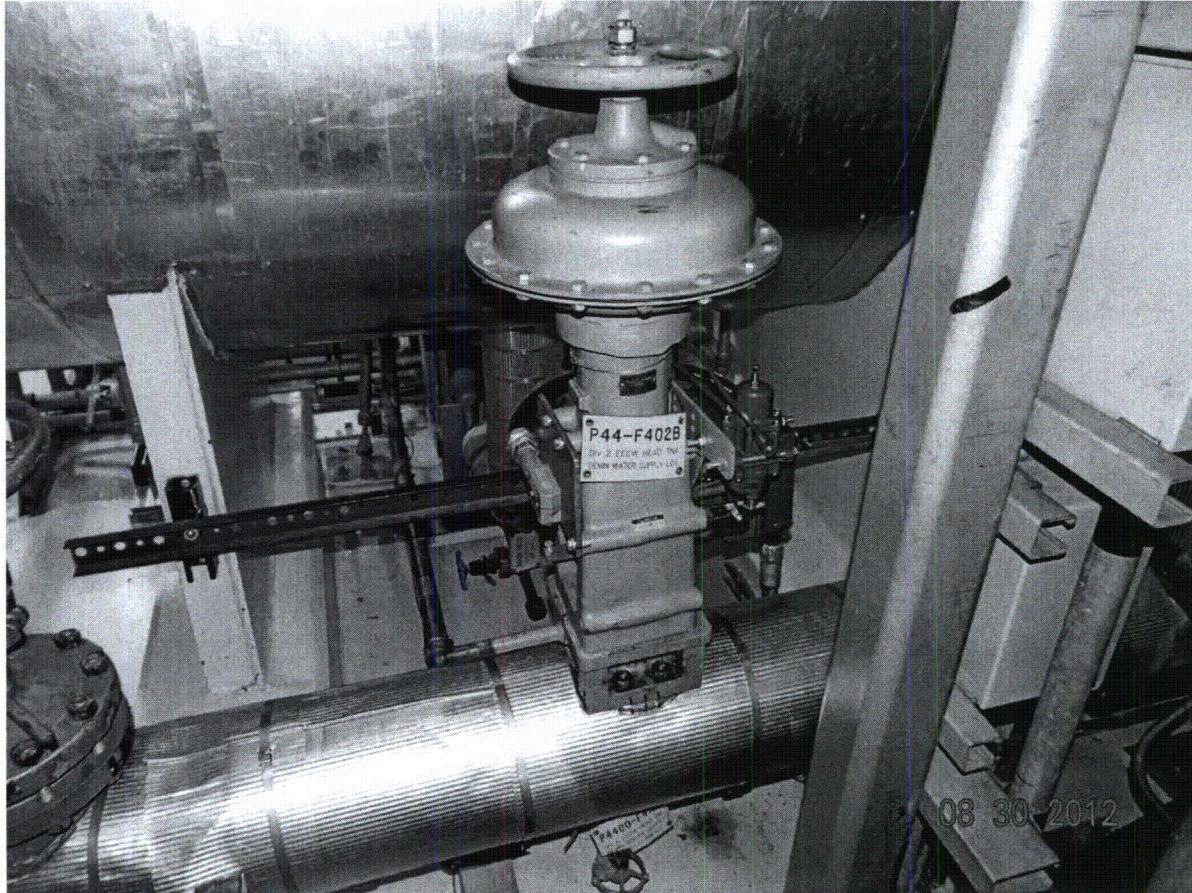
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2:  Date: 08/31/12

**Seismic Walkdown Pictures**

Equipment ID No. P44F402B Equipment Class: 7, Pneumatic Operated Valves

Equipment Description EECW M/U Tank A002 DIV 2 V8-2362 Lvl Ctrl AOV



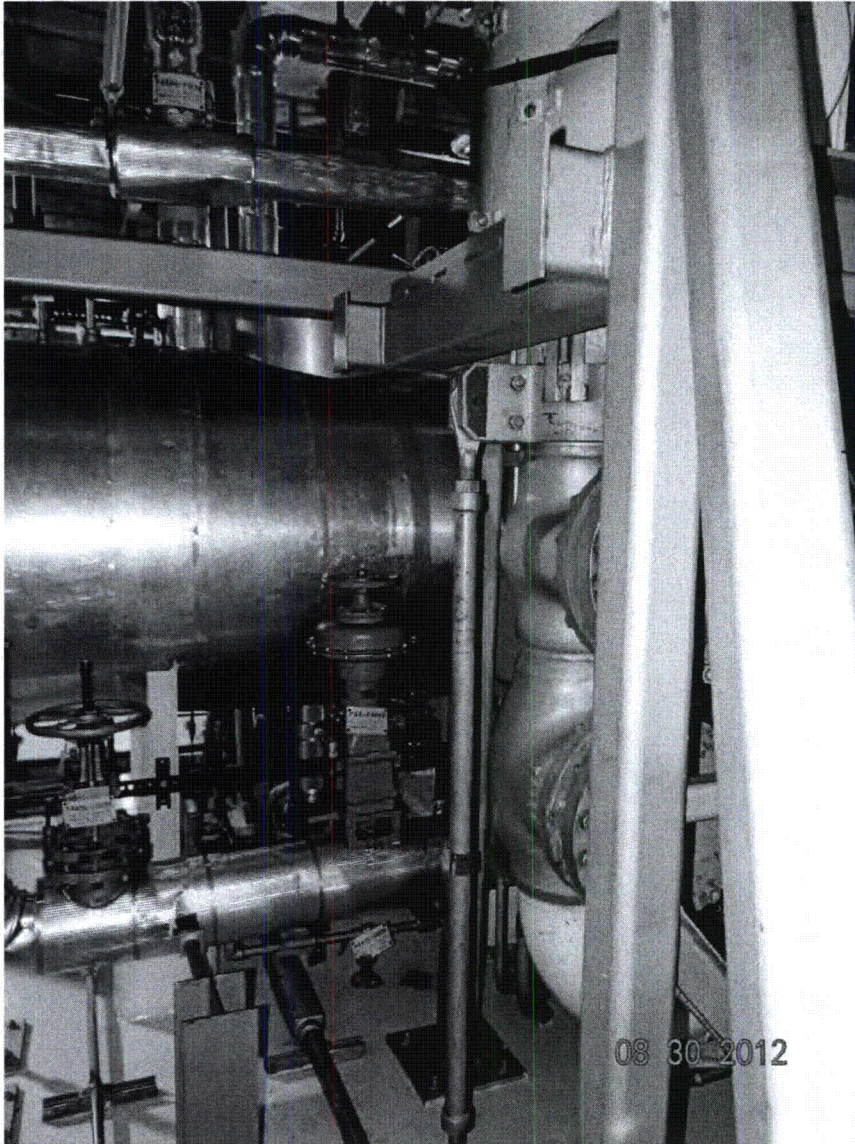
(DSC 01022)



**Seismic Walkdown Pictures**

Equipment ID No. P44F402B Equipment Class: 7, Pneumatic Operated Valves

Equipment Description EECW M/U Tank A002 DIV 2 V8-2362 Lvl Ctrl AOV

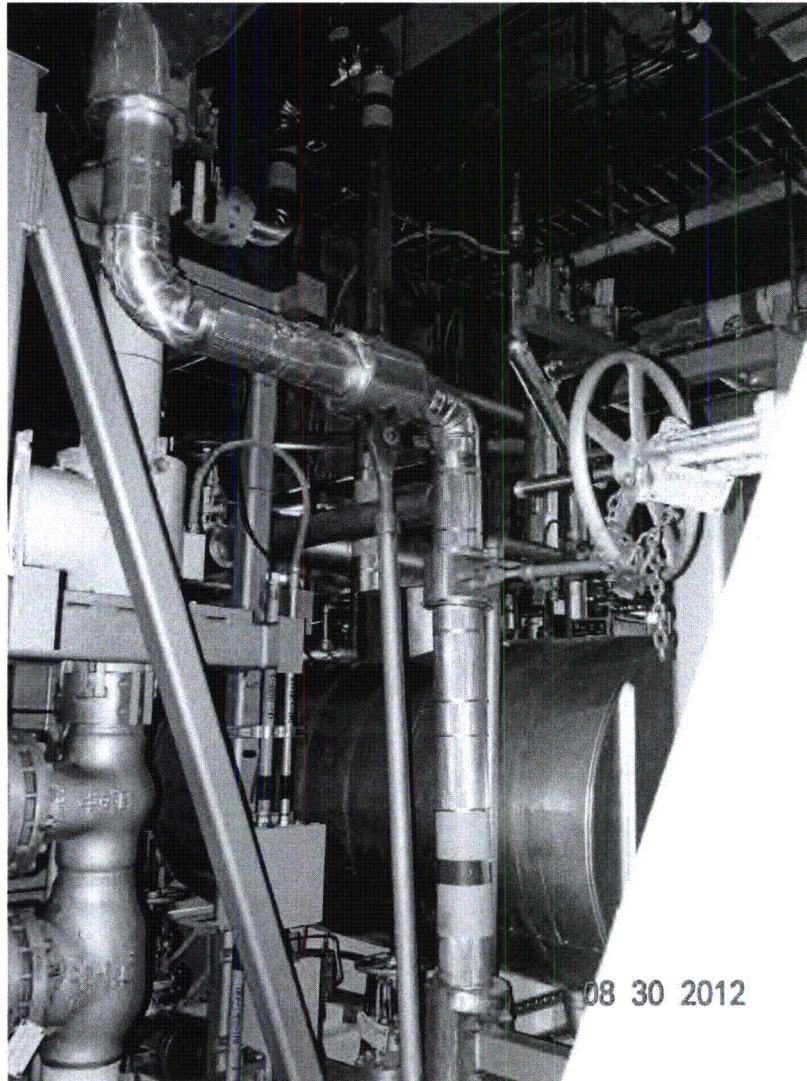


(DSC 01024)

**Seismic Walkdown Pictures**

Equipment ID No. P44F402B Equipment Class: 7, Pneumatic Operated Valves

Equipment Description EECW M/U Tank A002 DIV 2 V8-2362 Lvl Ctrl AOV



(DSC 01029)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44K400B Equip. Class<sup>1</sup> 0, Transducer

Equipment Description EECW Div. 2 Pneumatic Converter for Valve F400B

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

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

**Instructions for Completing Checklist**

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

**Anchorage**

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?  Y  N  
*This asset is not bolted to a building structure. It is bolted to Instrument Rack H21P448 which is anchored to the Reactor Building floor. Anchorage of the rack is evaluated in a separate Walkdown Checklist.*
  
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A  
*Bolts are in good condition. See Photo DSC 00285.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*There are no corrosion issues.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*The transducer is bolted to an instrument rack, not concrete.*
  
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)  Y  N  U  N/A  
*Though anchorage configuration verification was not required, the transducer was determined to be bolted to the instrument rack in accordance with Dwg. I-2516-15, Rev. E, no postings (see Photo DSC 00285).*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
*No adverse seismic conditions were identified.*

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



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44K400B Equip. Class<sup>1</sup> 0, Transducer

Equipment Description EECW Div. 2 Pneumatic Converter for Valve F400B

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*No nearby structures. Nearby equipment is well-secured and not considered a threat.*
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  
*Lighting conduit mounted on a concrete beam above the transducer is not secured at 8'-0" intervals as required by plant drawings. See Photo DSC00296. CARD 12-26852 was initiated.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Flex hoses and instrument tubing has adequate flexibility.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*Lighting conduit is not adequately supported.  
See Question 8 above. M/M 10/24/12*

**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  
*None identified.*

Fermi 2 Seismic Walkdown Guidance Document  
Seismic Walkdown Checklist

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Sheet 3 of 3  
Status: Y N U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44K400B Equip. Class<sup>1</sup> 0, Transducer

Equipment Description EECW Div. 2 Pneumatic Converter for Valve F400B

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

*For seismic evaluation of surrounding area, see Area Walk-By Checklist for Asset H21P448.*

*Seismic Engineer Walkdown PSE-53 Qualified*

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

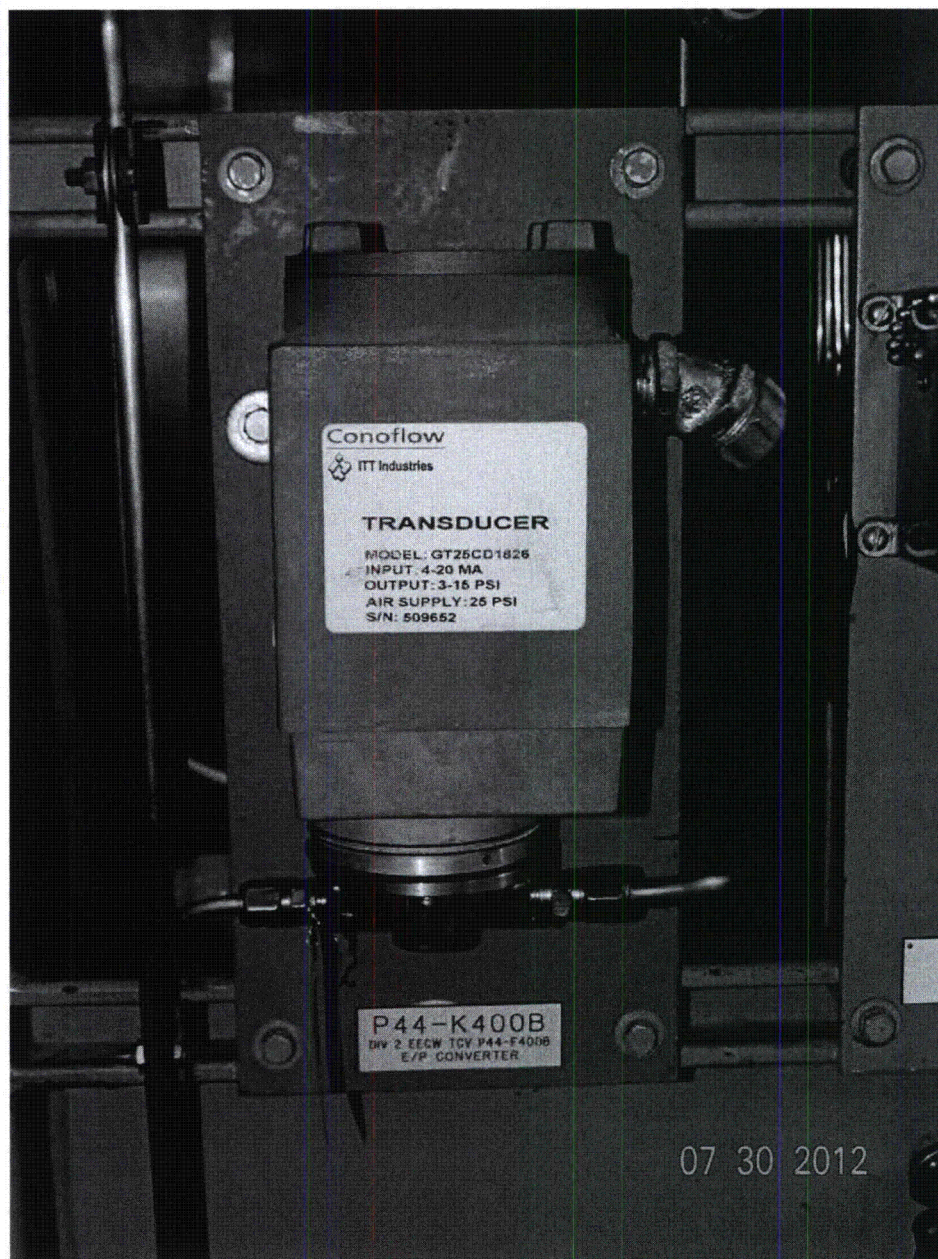
*Seismic Engineer Walkdown PSE-53 Qualified*

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

## Seismic Walkdown Pictures

Equipment ID No. P44K400B Equipment Class: 0, Transducer

Equipment Description EECW DIV 2 Pneumatic Converter for Valve F400B



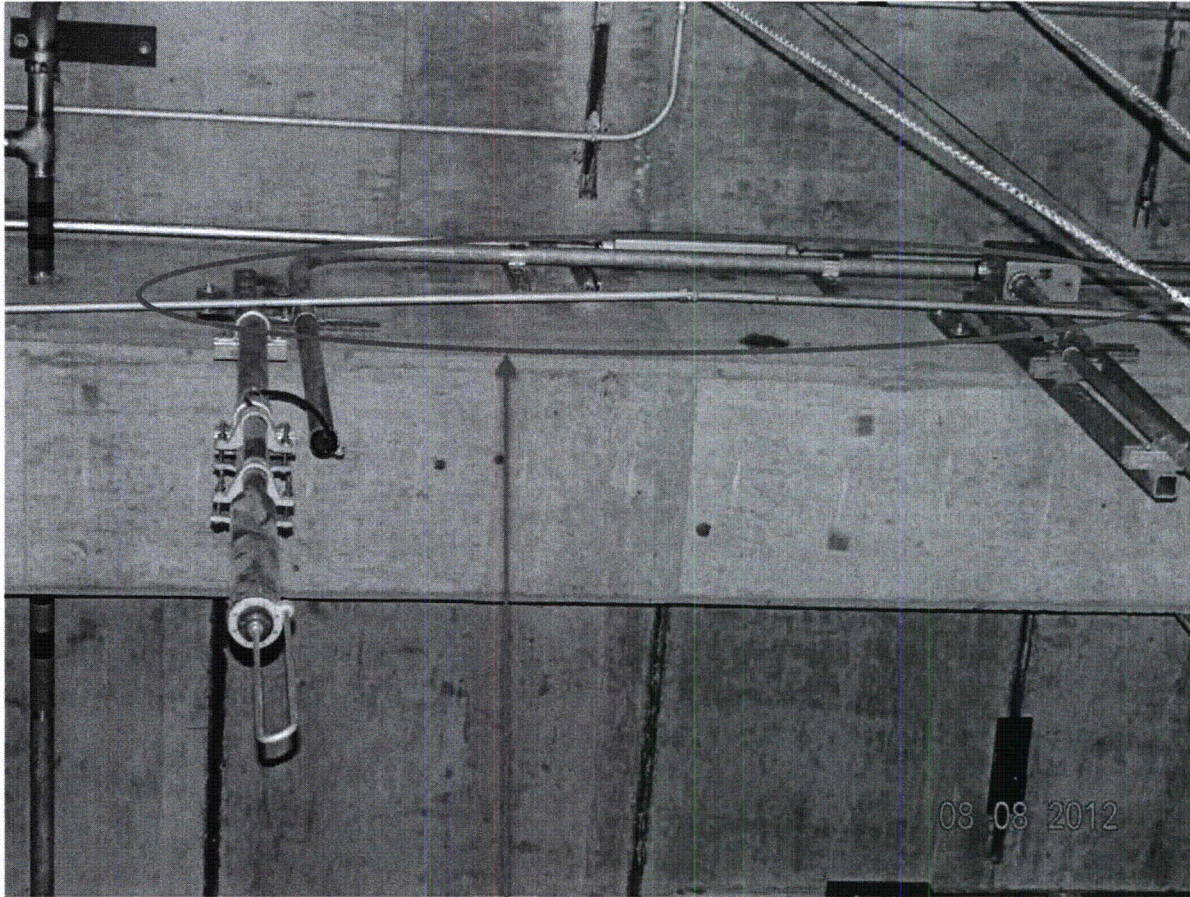
(DSC 00285)



**Seismic Walkdown Pictures**

Equipment ID No. P44K400B Equipment Class: 0, Transducer

Equipment Description EECW DIV 2 Pneumatic Converter for Valve F400B



(DSC 00296)

Conduit "Unsupported"

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44N401A Equip. Class<sup>1</sup> 19, Temperature Sensors

Equipment Description EECW HX B001A/B001C Rtrn T/C (Thermocouple)

Location: Bldg. RB Floor El. 613'-6" Room, Area Room A-17, Col A-12

Manufacturer, Model, Etc. (optional but recommended) Pyco Inc., 102-3171-20-3.8-10.4

**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  
*Sensor is welded to pipe line and decoupled from conduit with a flex connection (see Photo 003). Pipe line anchorage was evaluated during an Area Walk-by.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*No anchorage.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*No anchorage.*
  
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.)  
*No anchorage configuration verification required.*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
*No anchorage evaluation required; however, no adverse findings were identified.*

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44N401A Equip. Class<sup>1</sup> 19, Temperature Sensors  
Equipment Description EECW HX B001A/B001C Rtrn T/C (Thermocouple)

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*No overhead objects are nearby that could impact the sensor (see Photo 004). Strut and pipe in photo are closest objects and well supported.*
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, lighting or masonry block walls. All other systems are adequately supported (see Photo 005).*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Conduit lines attached to thermocouple have adequate flexibility.*
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  
*None identified.*



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. P44N401A Equip. Class<sup>1</sup> 19, Temperature Sensors

Equipment Description EECW HX B001A/B001C Rtrn T/C (Thermocouple)

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

*None.*

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 : *R. G. Madhoo* Date: 8/15/12

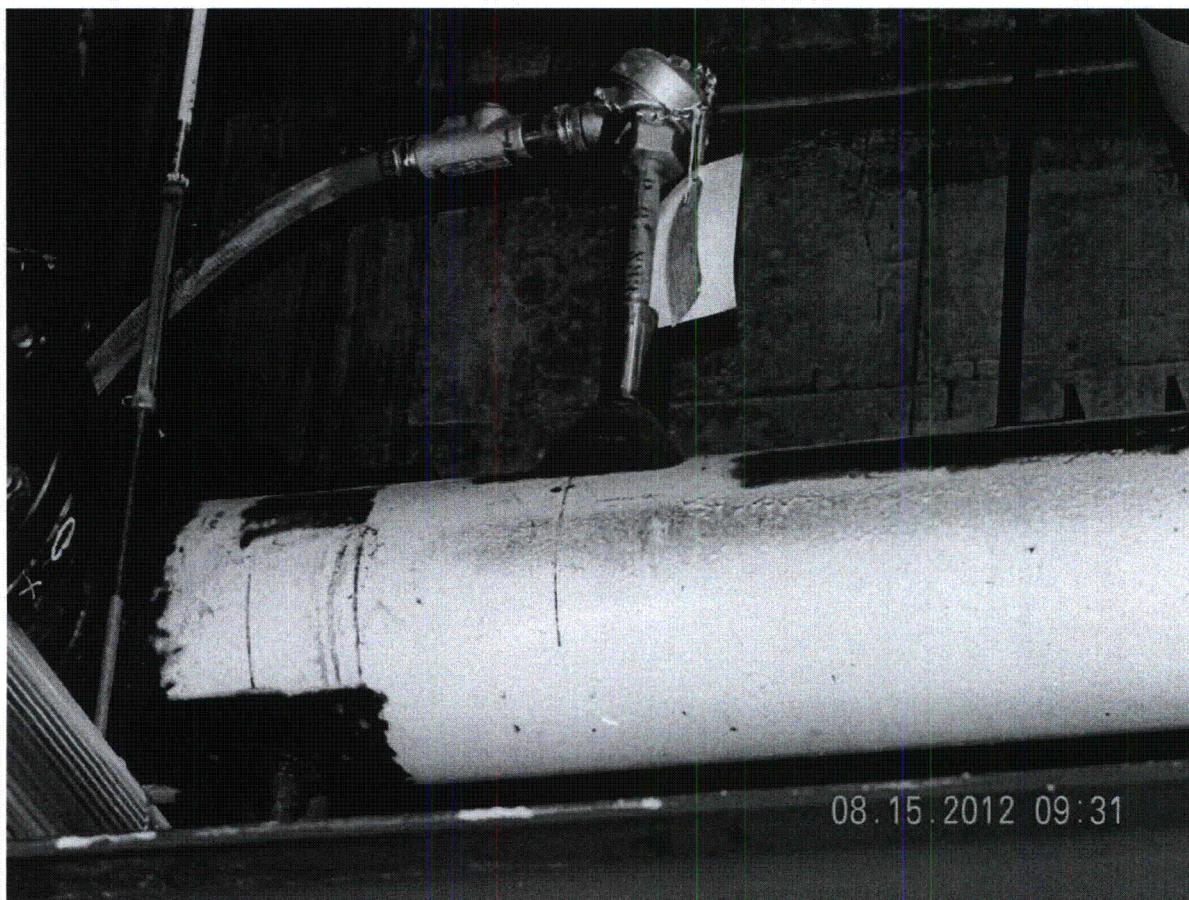
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2 : *[Signature]* Date: 08/15/12

**Seismic Walkdown Pictures**

Equipment ID No. P44N401A Equipment Class: 19, Temperature Sensors

Equipment Description EECW HX B001A/B001C Rtrn T/C (Thermocouple)



(Photo 003)

"Thermocouple"

**Seismic Walkdown Pictures**

Equipment ID No. P44N401A    Equipment Class: 19, Temperature Sensors

Equipment Description EECW HX B001A/B001C Rtrn T/C (Thermocouple)



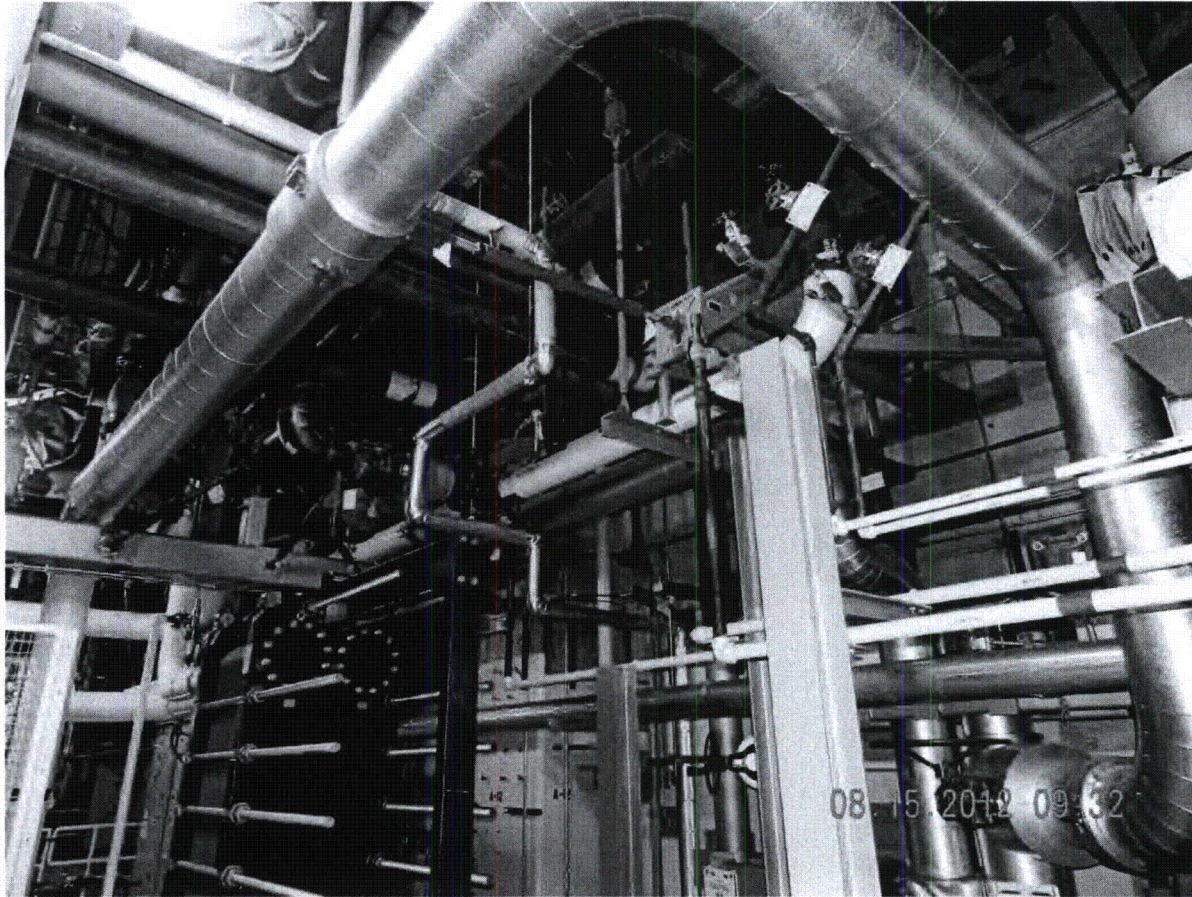
(Photo 004)



**Seismic Walkdown Pictures**

Equipment ID No. P44N401A    Equipment Class: 19, Temperature Sensors

Equipment Description EECW HX B001A/B001C Rtrn T/C (Thermocouple)



(Photo 005)

"Overview Area"

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44P403A Equip. Class<sup>1</sup> O, Other

Equipment Description N<sub>2</sub> Supply Tank Storage Rack

Location: Bldg. RB Floor El. 613'-6" Room, Area: Room A-17, Col. B-13

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  U
  
2. Is the anchorage free of bent, broken, missing or loose hardware?  
*All anchorage is in good condition.*  Y  N  U  N/A
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  
*No corrosion is present on anchorage.*  Y  N  U  N/A
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  
*No cracks in concrete.*  Y  N  U  N/A
  
5. Is the anchorage configuration consistent with plant documentation?  
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)  
*Anchorage configuration is consistent with Dwg. I-2443-01, Rev. A (NO POSTINGS); Calc. DC-5757 Vol. I, Rev. 0, Appendix 5; and Index Item 30844.B046 Rev. 0. See Photos 005.jpg & 015.jpg.*  Y  N  U  N/A
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. P44P403A Equip. Class<sup>1</sup> O, Other

Equipment Description N<sub>2</sub> Supply Tank Storage Rack

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**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A    
*Since nearby equipment and piping is well supported, the possibility of the rack's soft targets being impacted is not a concern.*
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 masonry block walls are in area. Lights are securely supported.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A    
*Since attached lines have adequate flexibility, seismic interaction is not a concern (see Photo 004.jpg).*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U    
*Storage rack is free of potentially adverse seismic interaction effects due to adequate supports and flexibility of attached lines.*
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**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    
*The N<sub>2</sub> tanks are tied off to the rack's structural frame. No adverse seismic conditions identified.*