

NJPR-12-0043

**Missing Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B009 Equip. Class<sup>1</sup> 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

Location: Bldg. AB Floor El. 677'-6" Room, Area HVAC Equip. Room (B-27A)

Manufacturer, Model, Etc. (optional but recommended) Trane Model C5-BF3-BV3

**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  
*All bolts visible.*
  
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A  
*All bolts installed properly. Missing spring isolator bolt at SE spring isolator; See CARD 12-28245 for action. See photos DSCN0558-0569 and DSCN0576-0579.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*Bolts are clean with no corrosion. Chiller isolators exhibit some rusting. The corrosion is mild and will not impact seismic performance. See CARD 12-28246 for action. See Photo DSCN0571.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*No visible cracks observed 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 an anchorage configuration verification is required.)  Y  N  U  N/A  
*Anchorage is consistent with drawing M-4007. Missing spring isolator bolt at SE spring isolator (See question No. 2)*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U  
*The missing spring isolator bolt and questionable clearance at spring isolators are potentially adverse seismic conditions. Refer to CARDS 12-28245 and 12-28393 for resolution of the conditions.*

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

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**Missing Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B009 Equip. Class 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

**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, conduit, cable tray and tube rack are seismically mounted.*

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 hung on chains and redundant cable. Block wall is seismically reinforced.*

9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*All pipes, conduit and instrument tubing 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

*Isolator clearance at some locations appears insufficient. Minimum clearances are not specified on the drawings or vendor documents. See CARD 12-28393 for action. See Photo DSCN0574.*

JML

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Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3  
Status:  Y  N  U  
JAM  
10/15/12

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T41008009 Equip. Class<sup>1</sup> 11-CHILLERS

Equipment Description CC HVAC NORTH DIV 1 AIR CONDITIONER CHILLER.

Comments (Additional pages may be added as necessary)

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: David G. Dickini Date: 8/20/2012

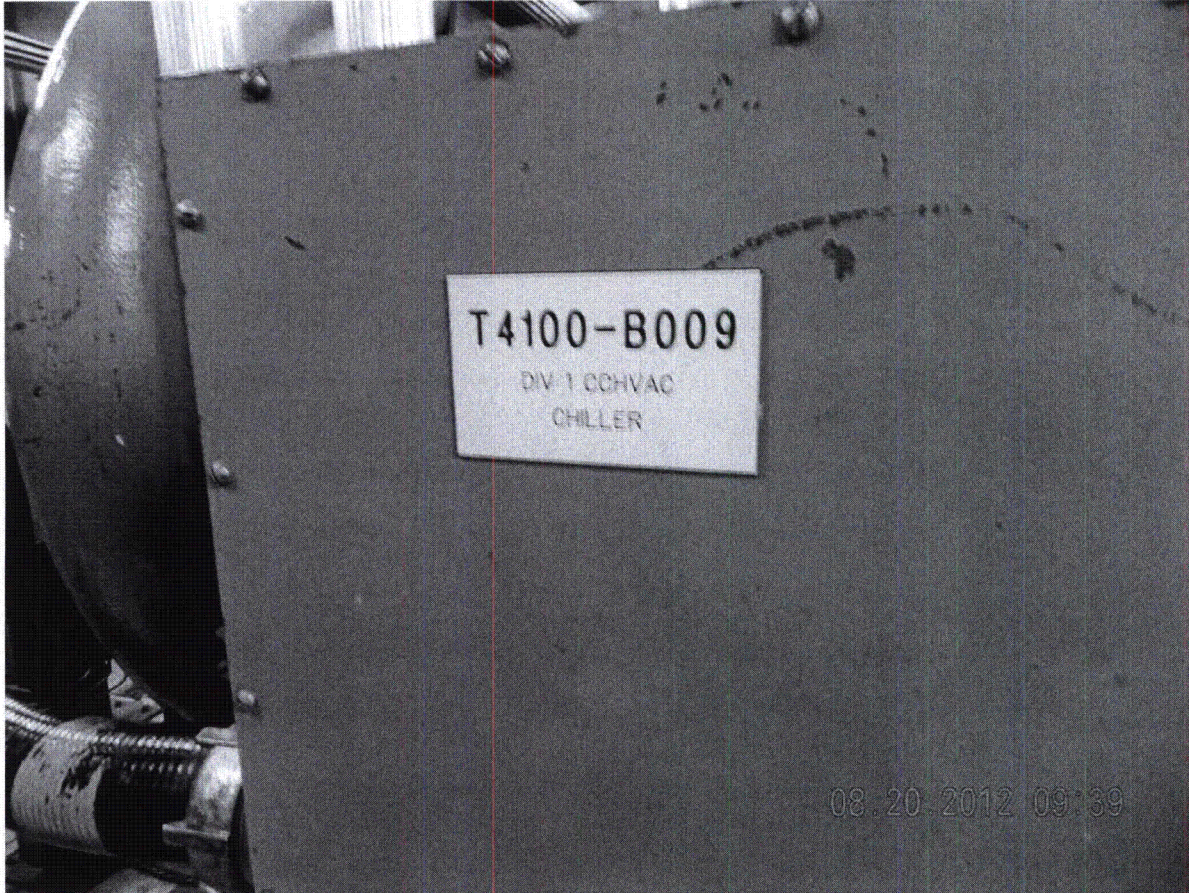
Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: Joseph M. Balke Date: 08/20/2012

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

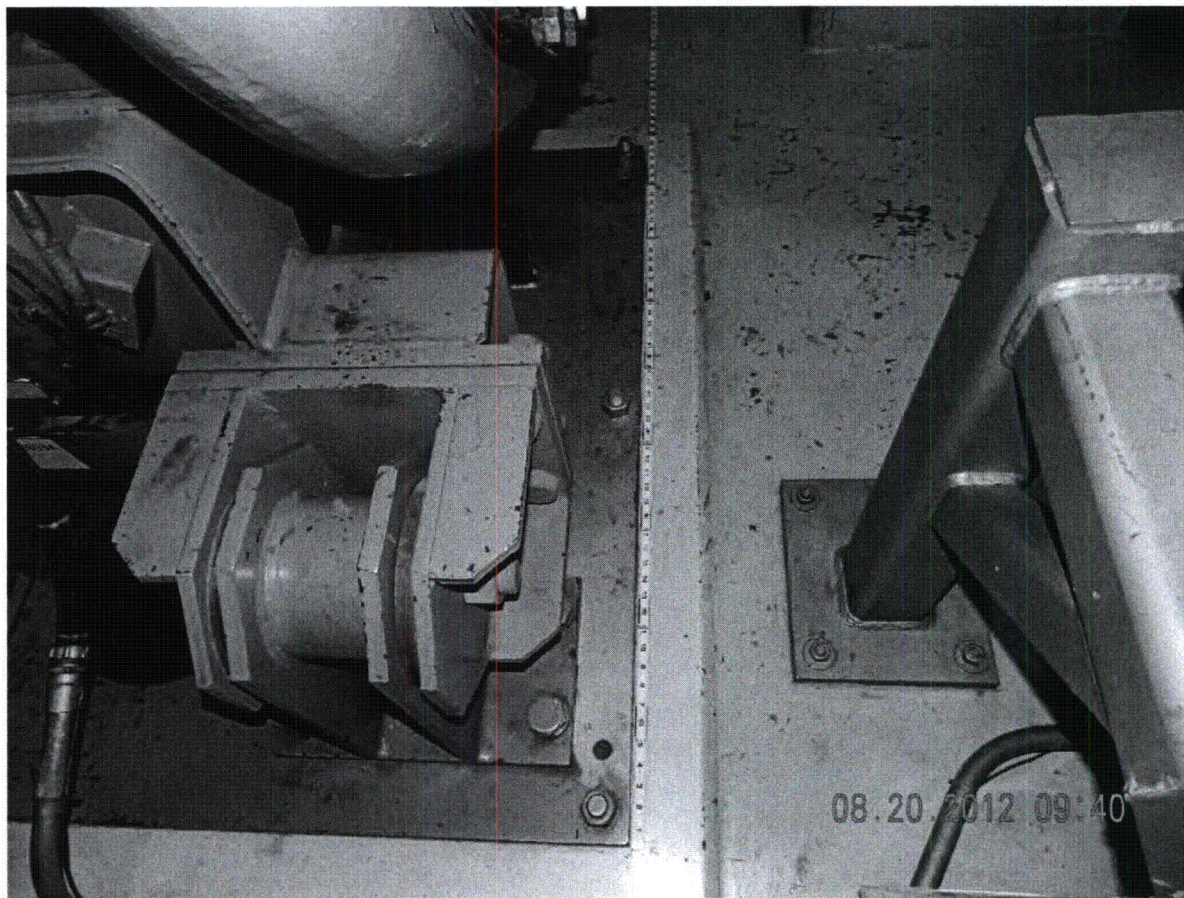


(DSCN0558)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

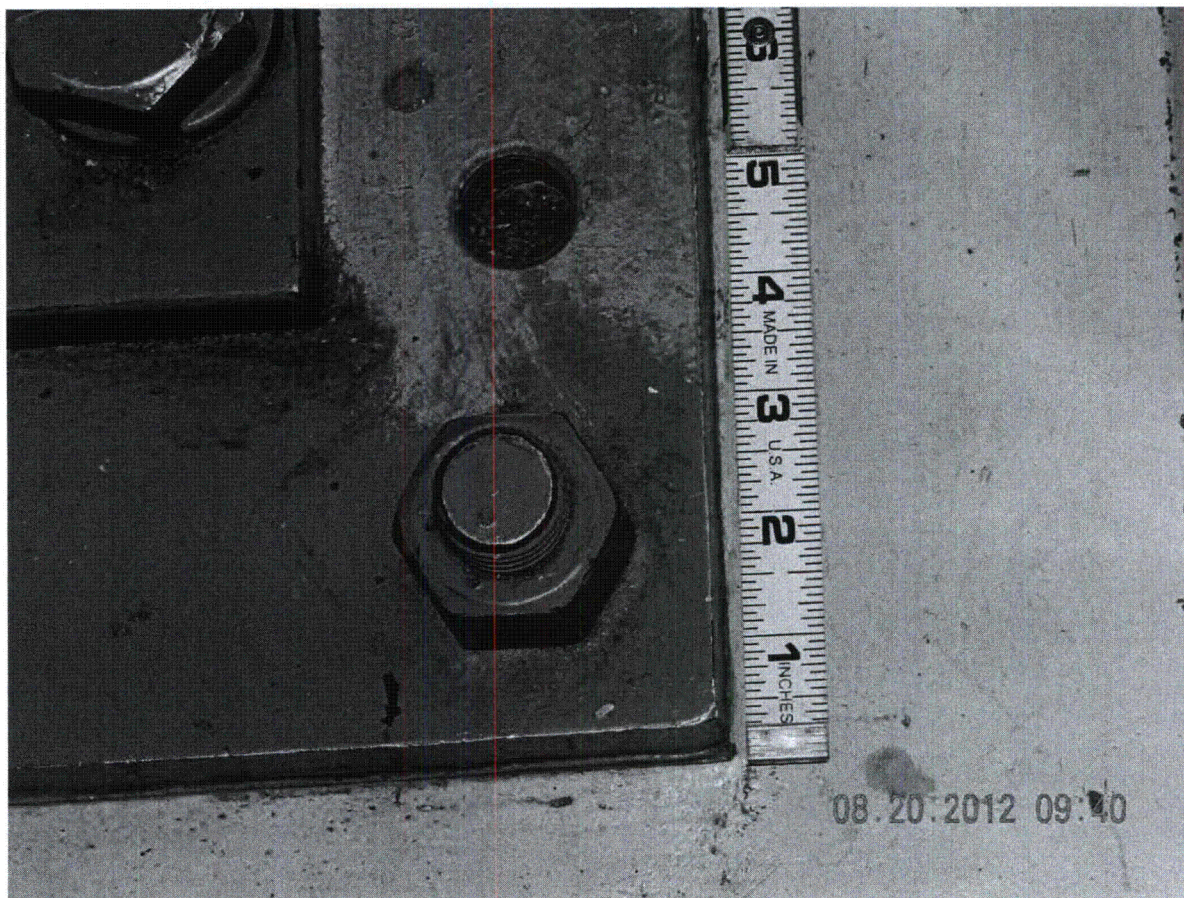


(DSCN0559)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller



(DSCN0560)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

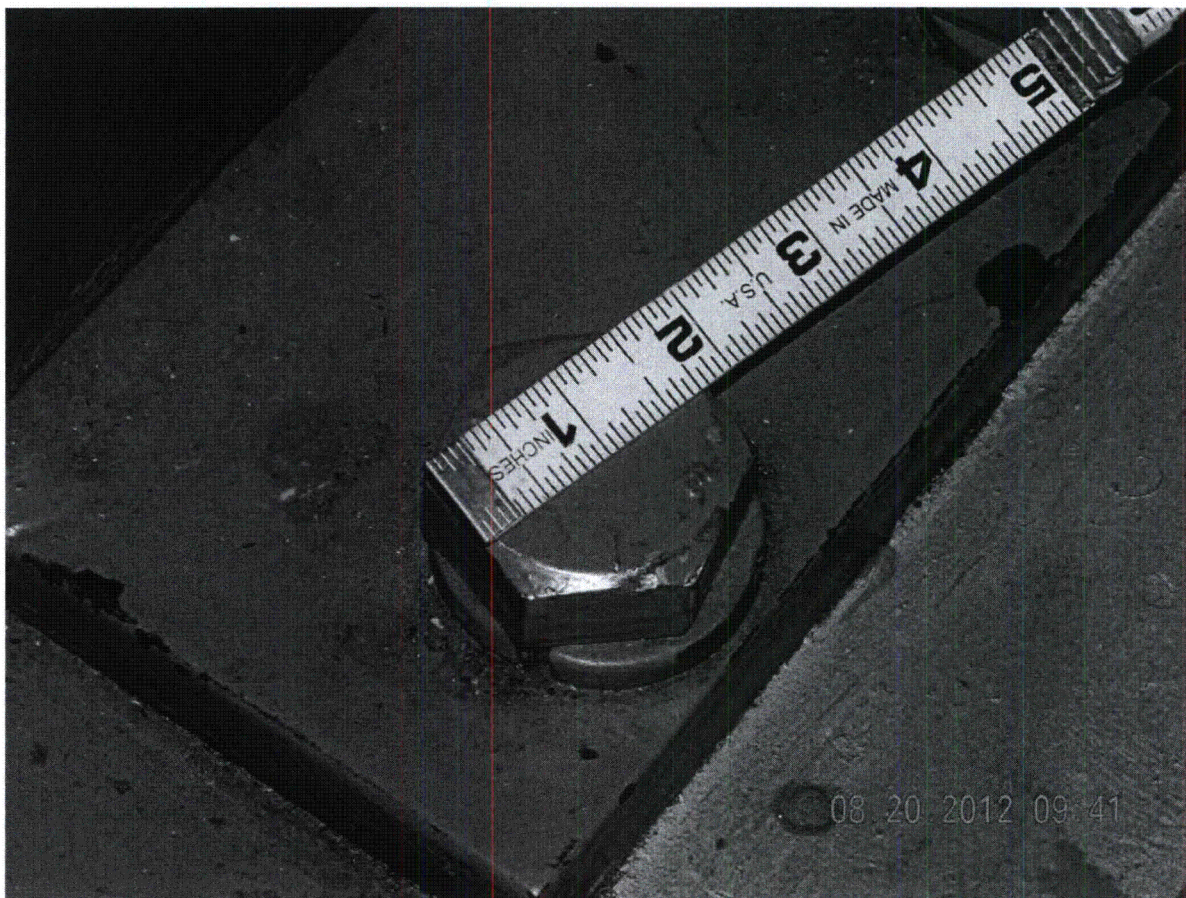


(DSCN0561)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller



(DSCN0562)



**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

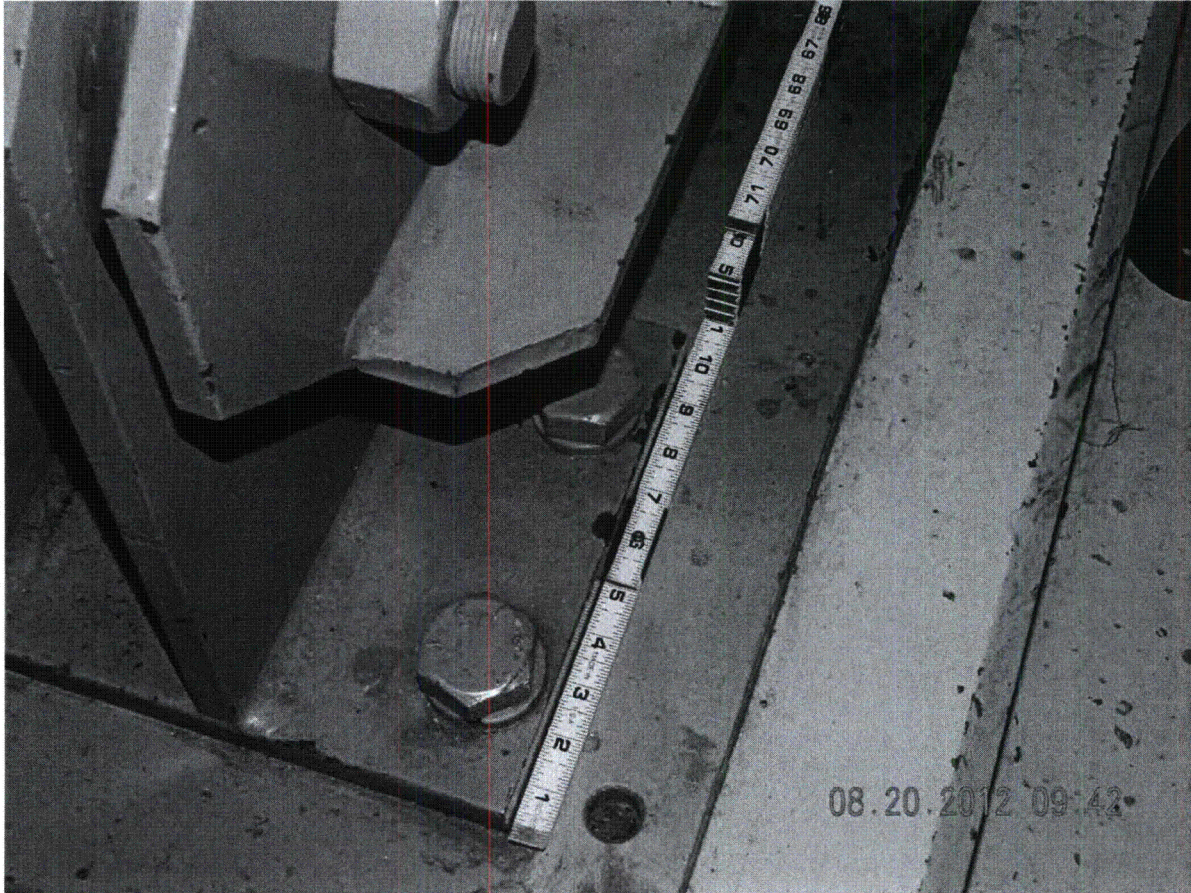


(DSCN0563)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

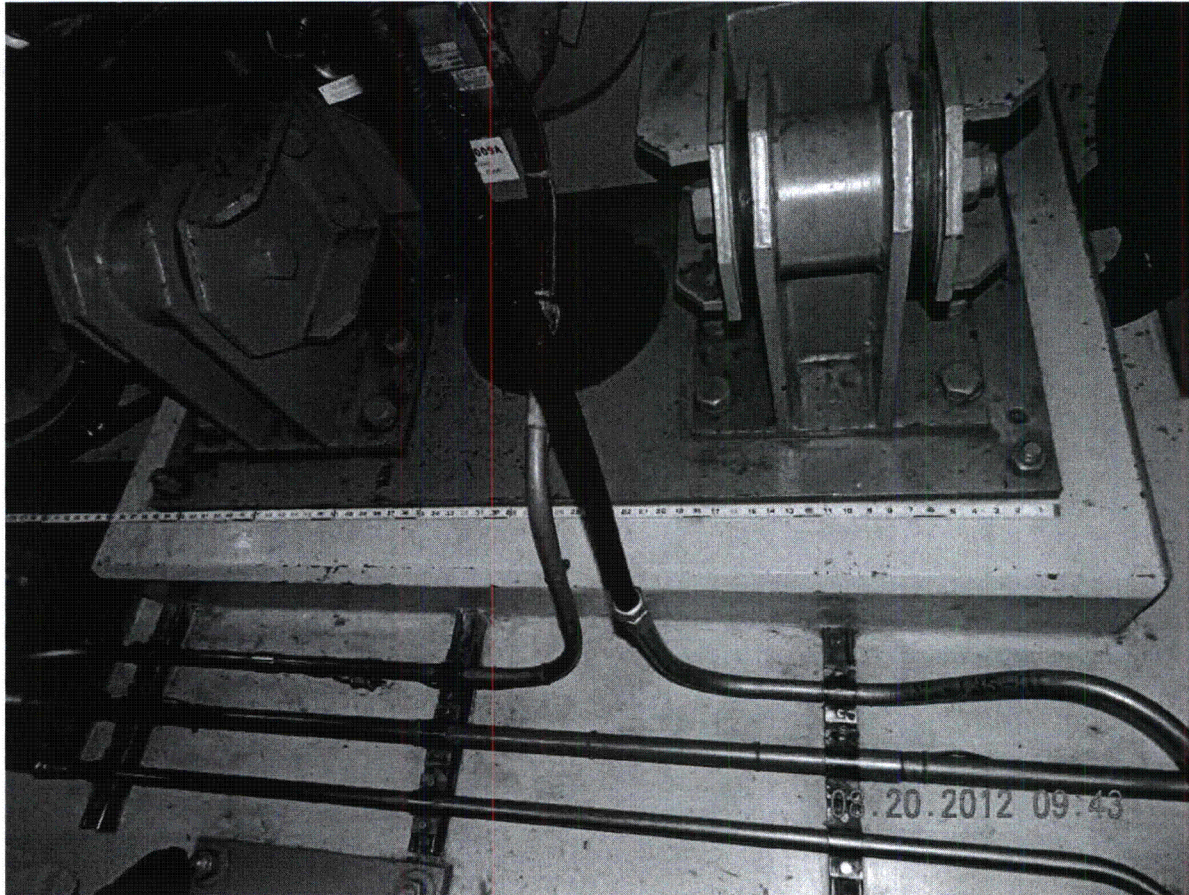


(DSCN0564)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

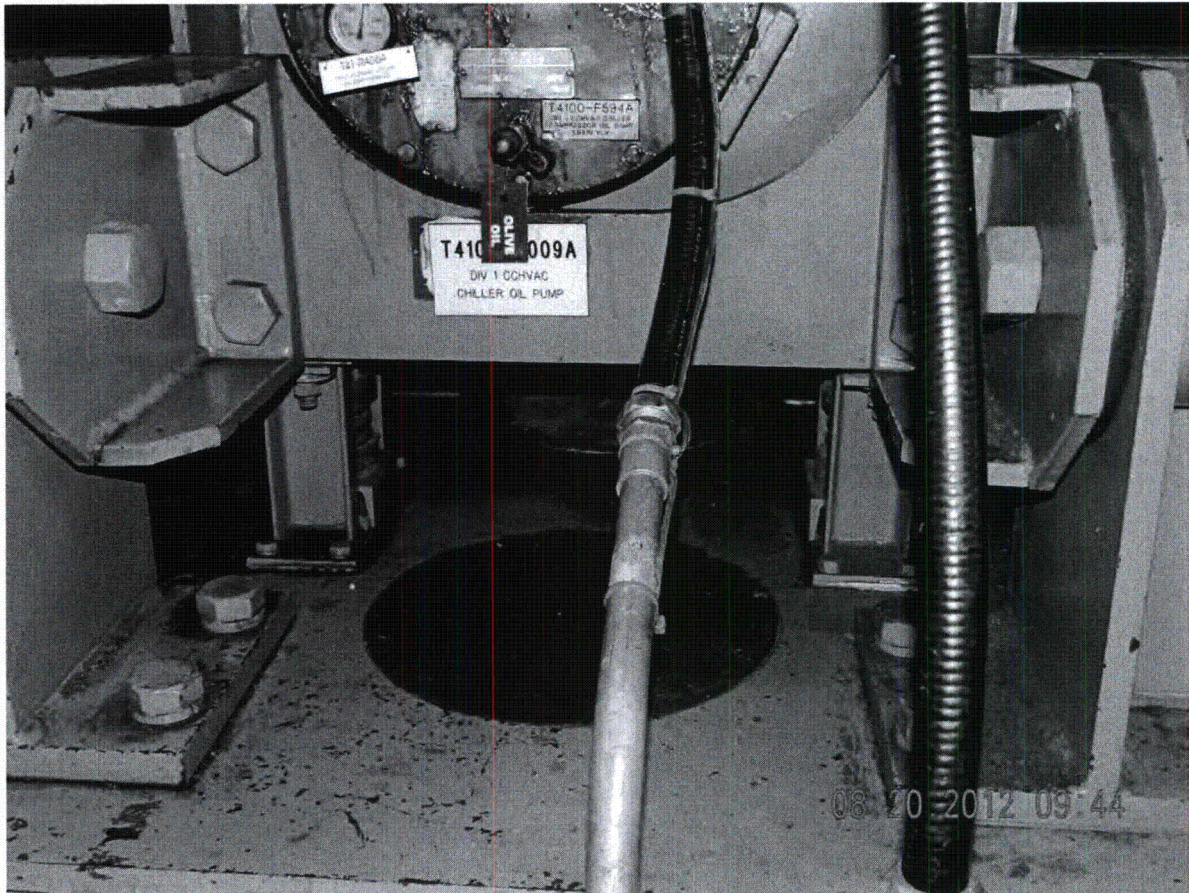


(DSCN0565)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

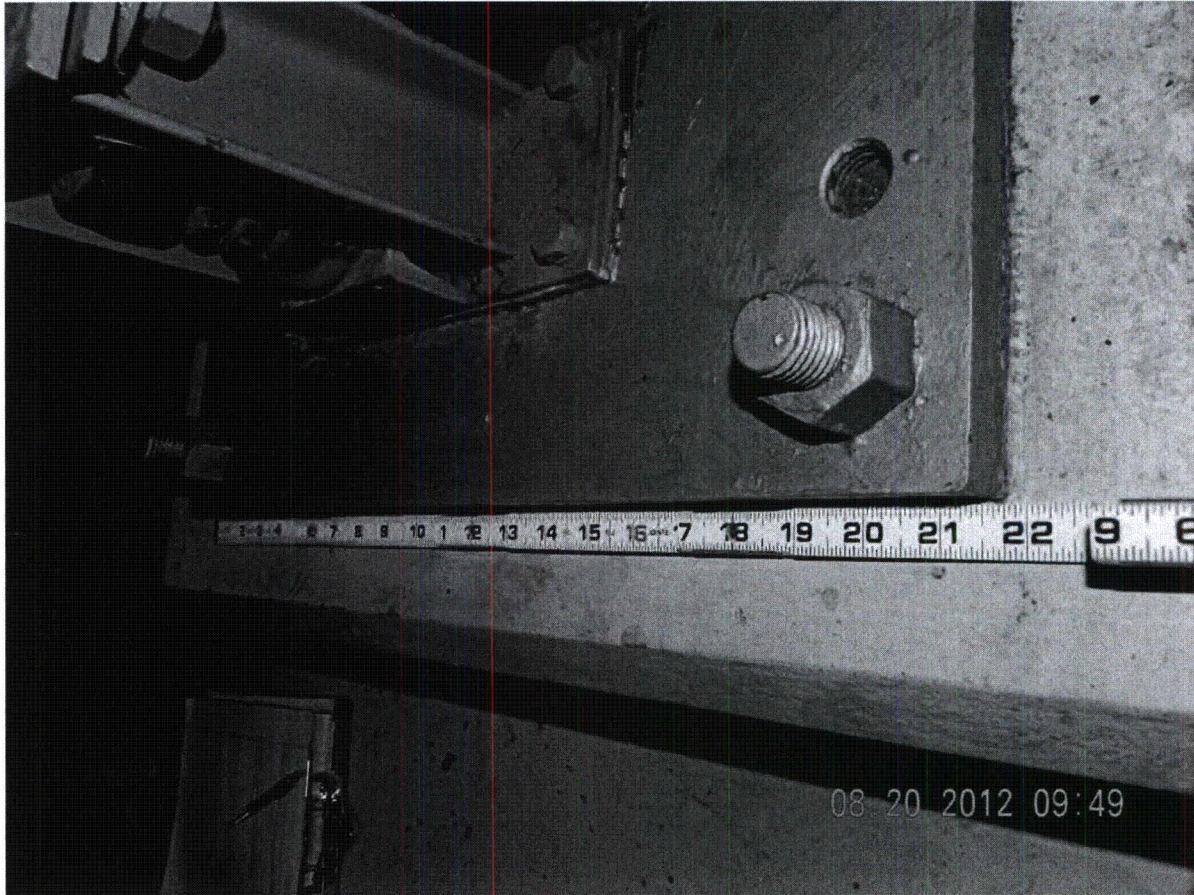


(DSCN0566)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller



(DSCN0567)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

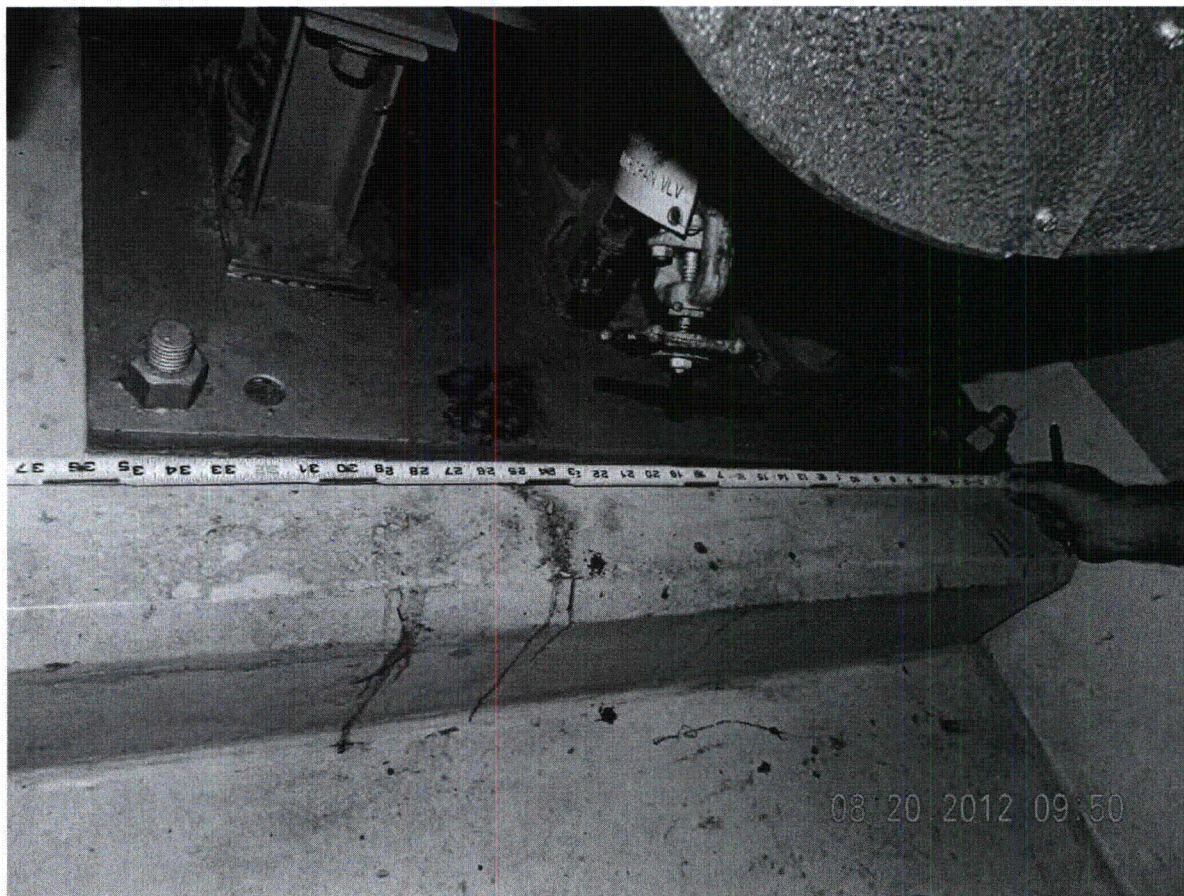


(DSCN0568)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

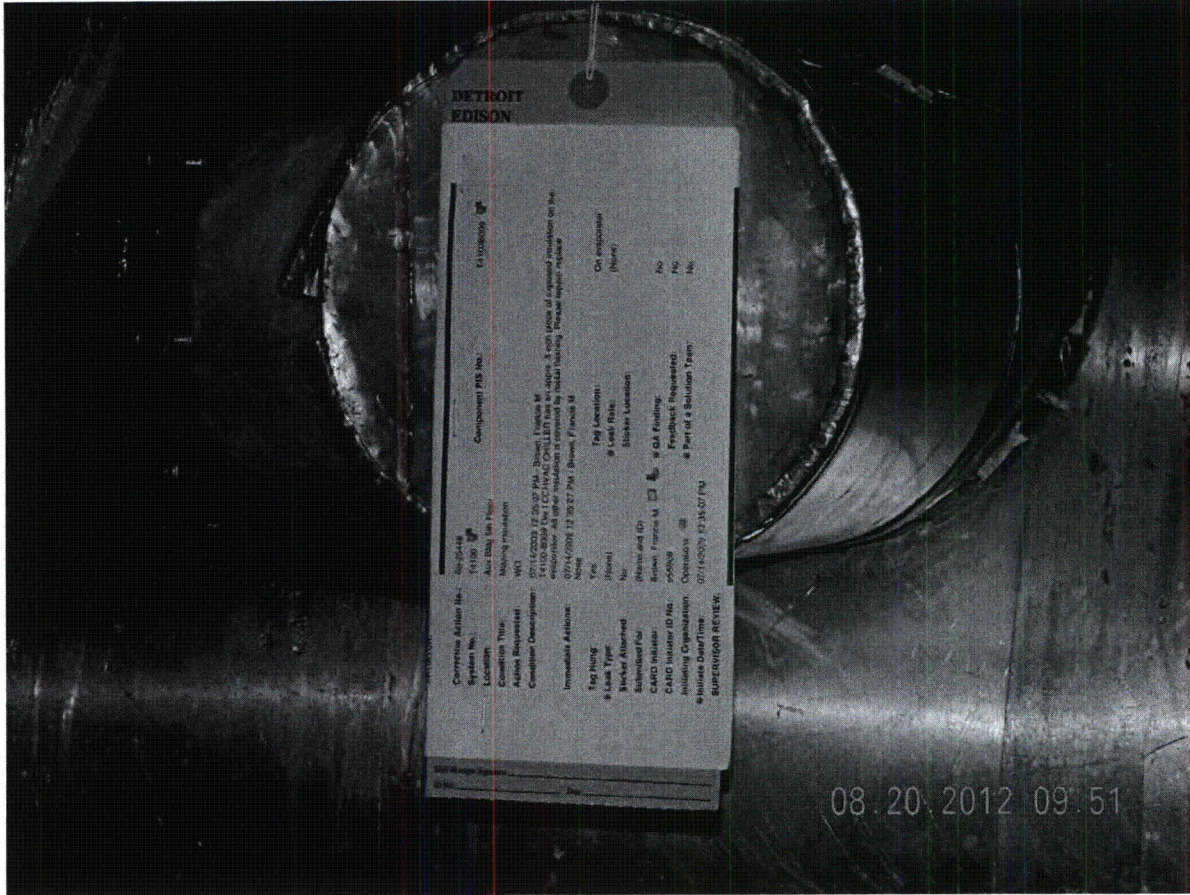


(DSCN0569)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller



(DSCN0570)



**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

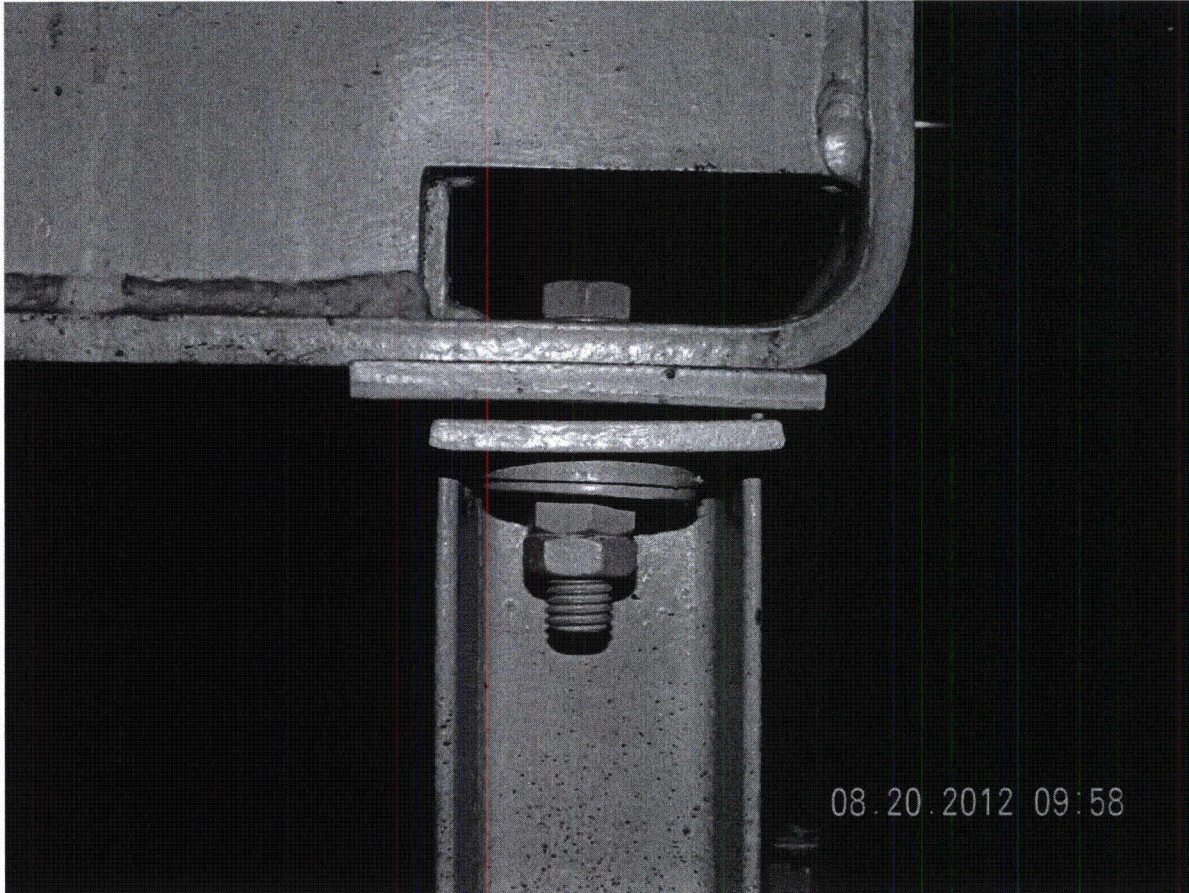


(DSCN0571)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

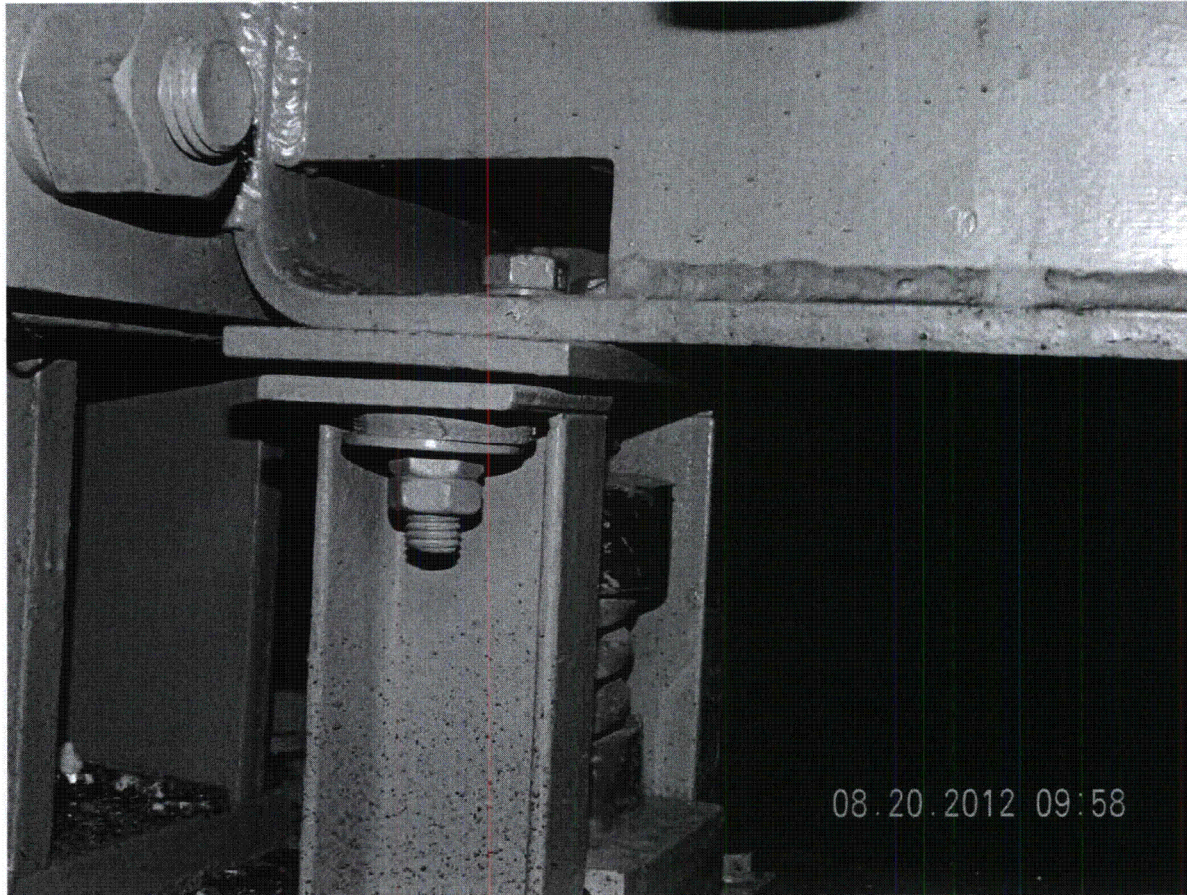


(DSCN0572)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

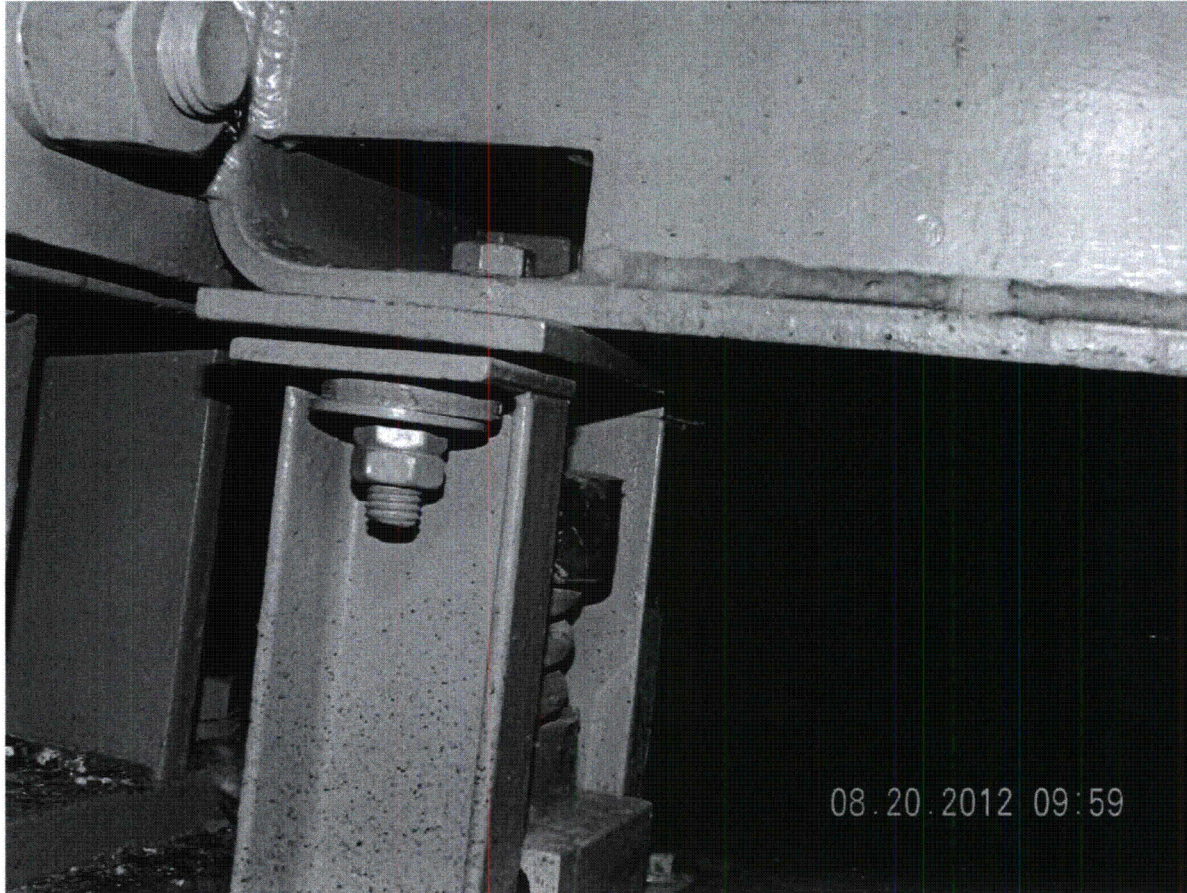


(DSCN0573)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

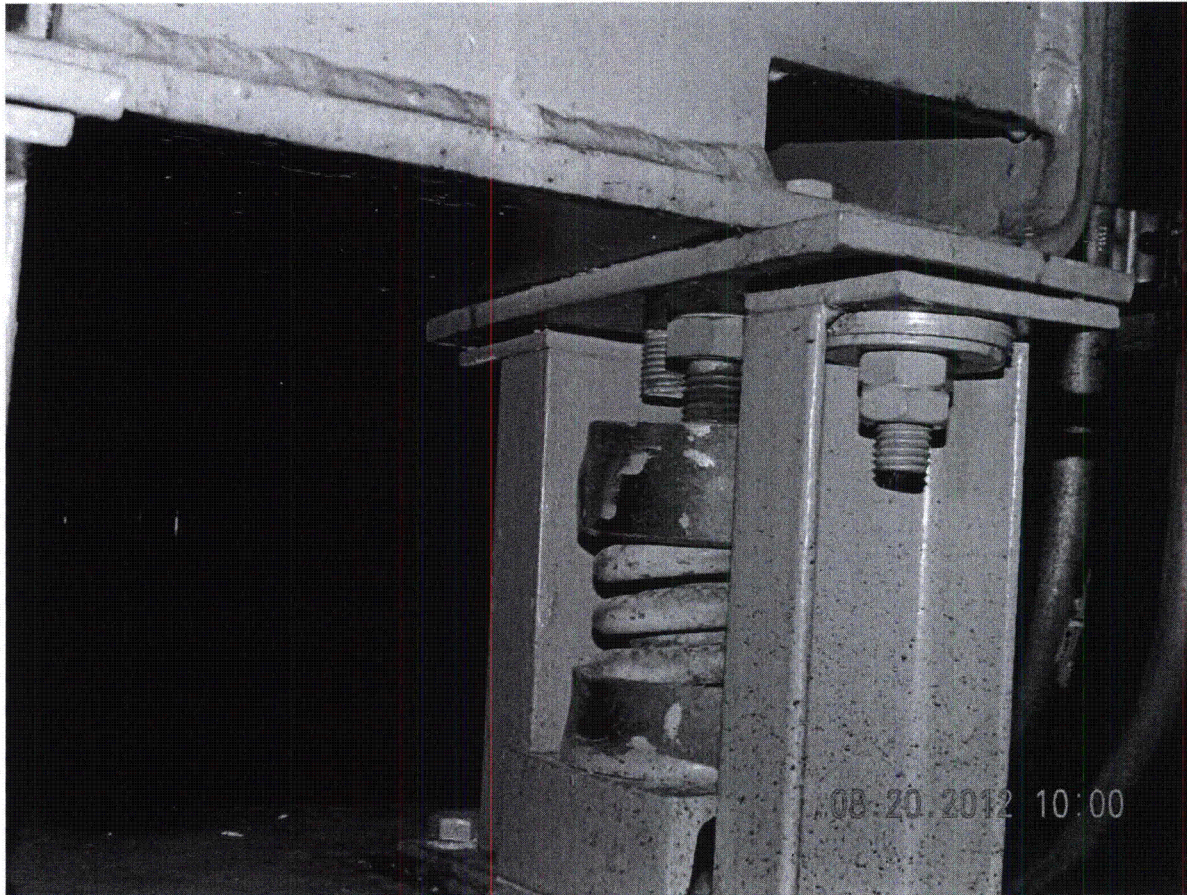


(DSCN0574)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

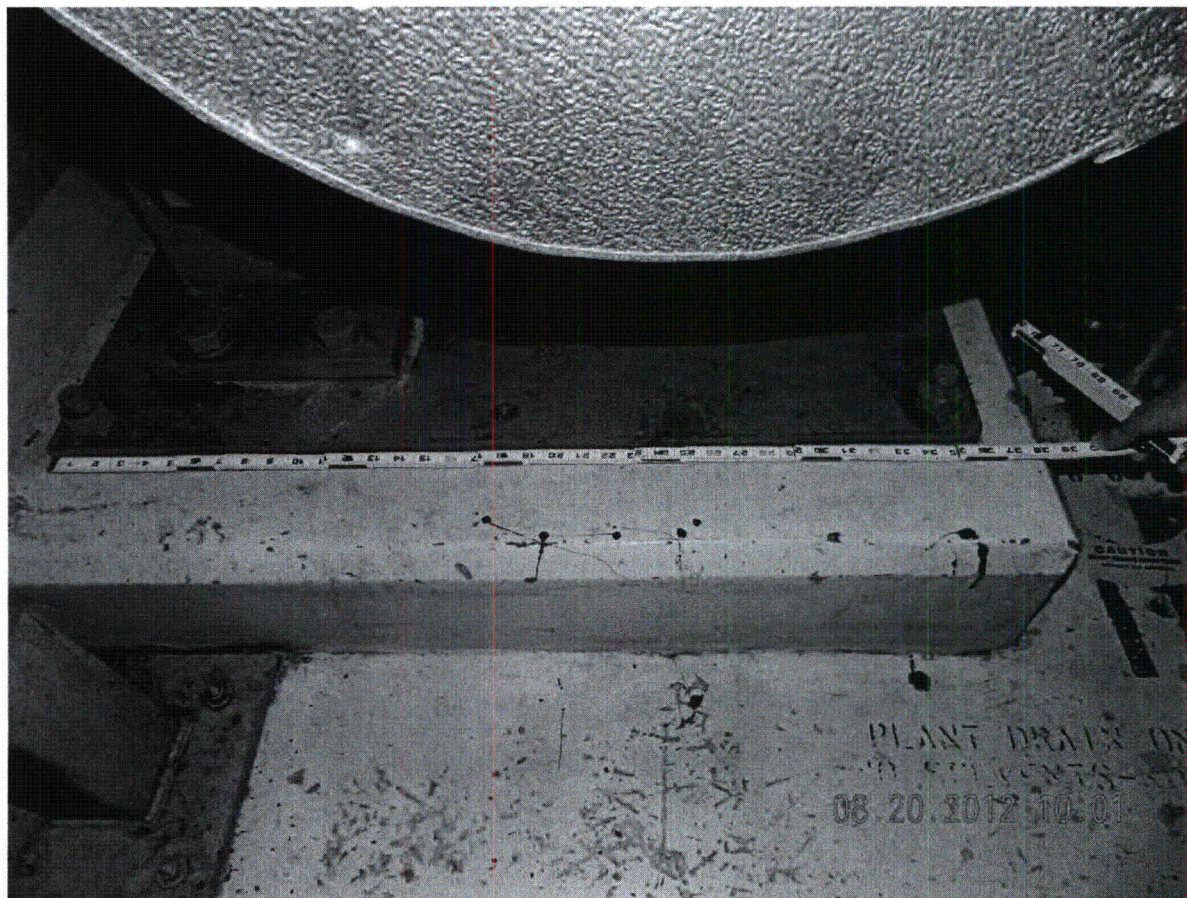


(DSCN0575)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

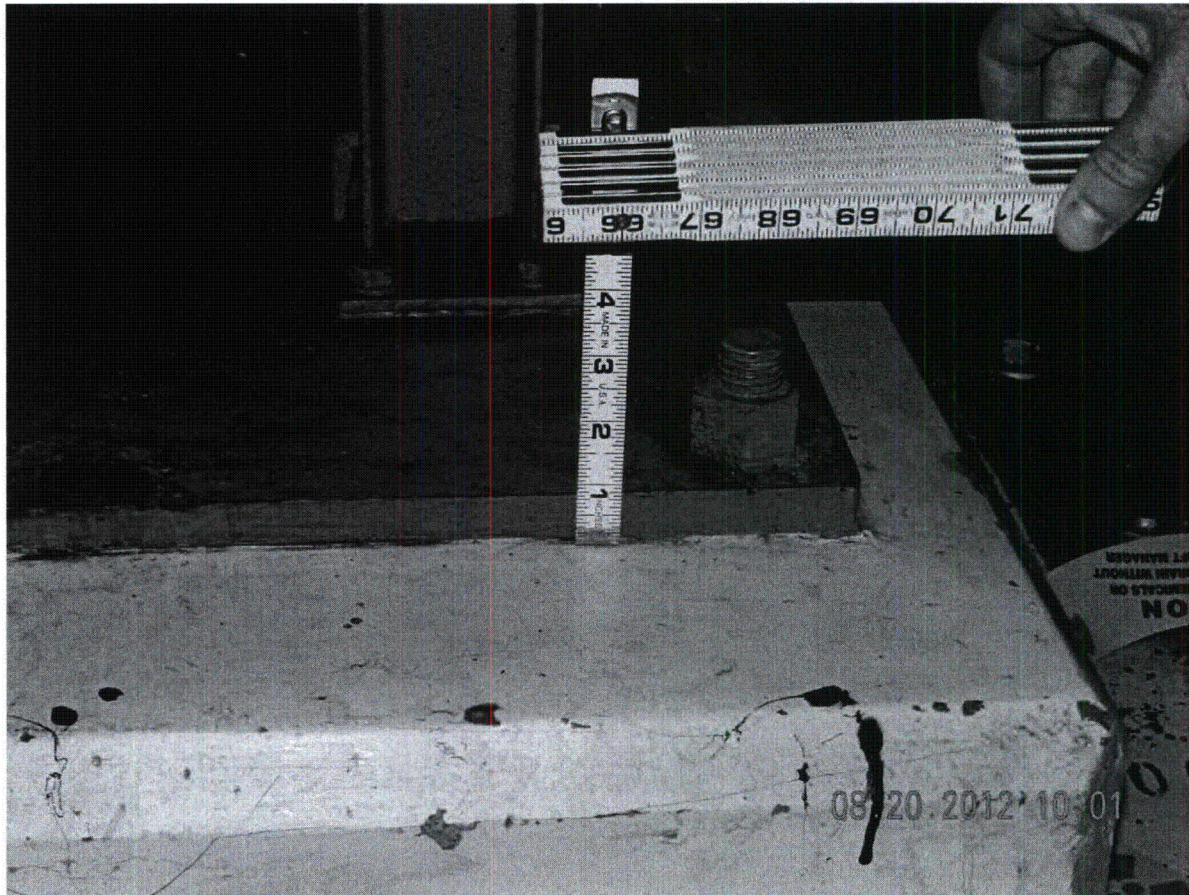


(DSCN0576)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller

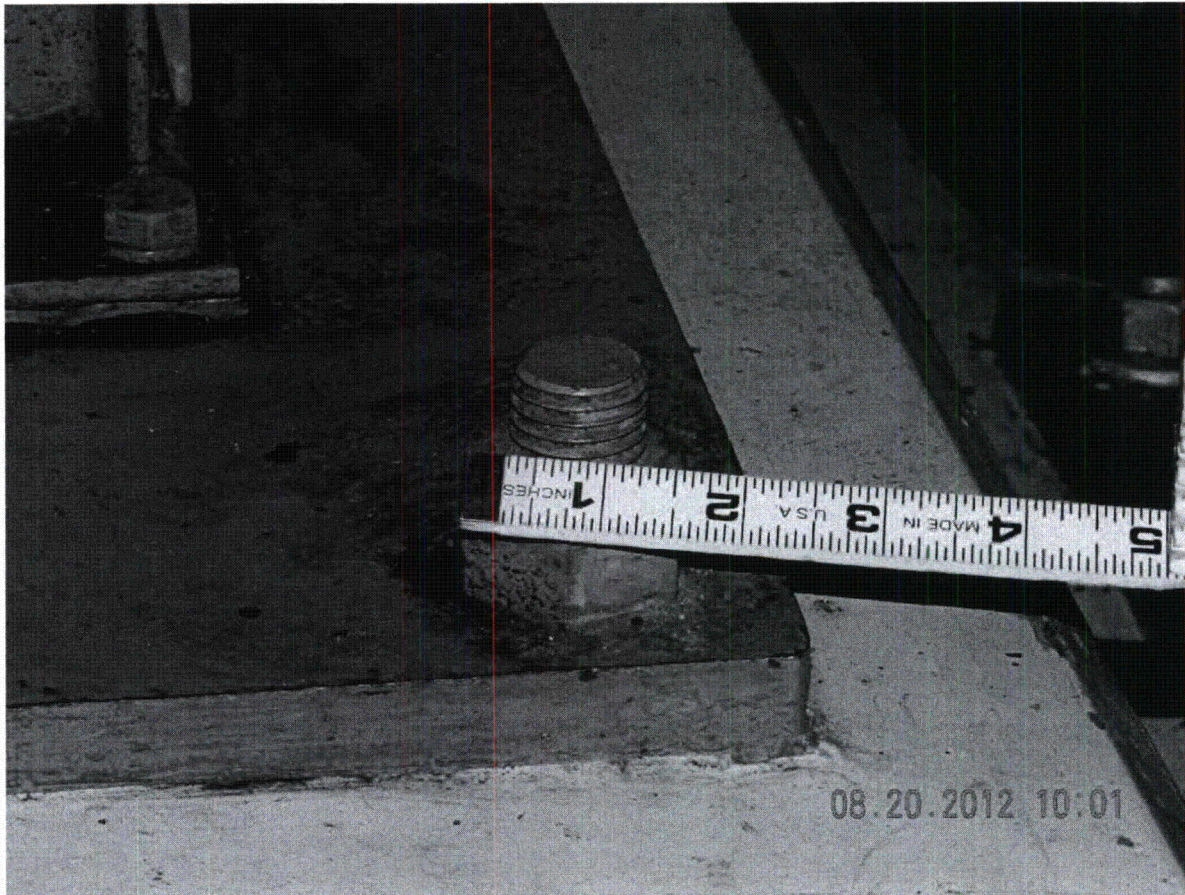


(DSCN0577)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller



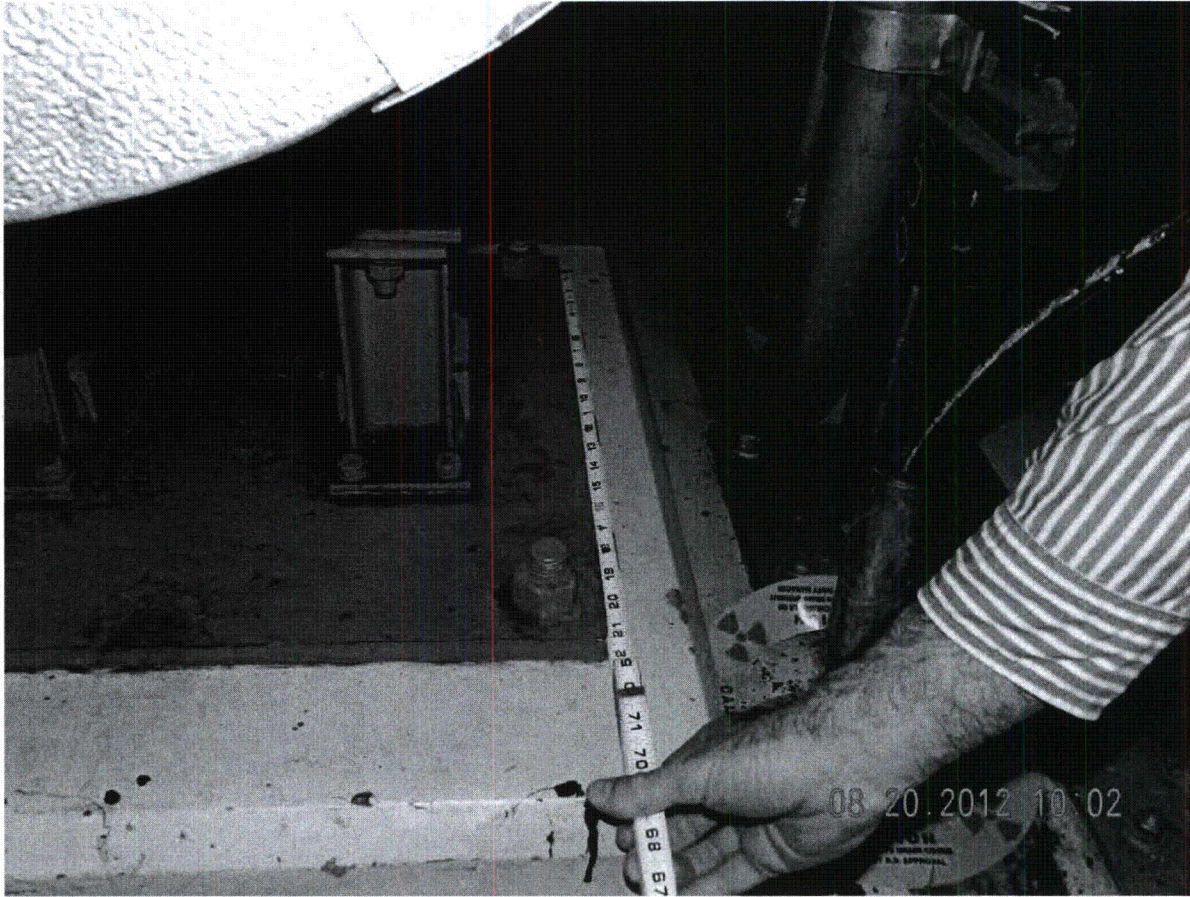
(DSCN0578)



**Seismic Walkdown Pictures**

Equipment ID No. T4100B009 Equipment Class: 11, Chillers

Equipment Description CCHVAC North Div 1 Air Conditioner Chiller



(DSCN0579)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B035 Equip. Class<sup>1</sup> 10 - Air Handlers

Equipment Description RB HVAC EECW Pmp Rm Cooler Unit

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

Manufacturer, Model, Etc. (optional but recommended) AEROFIN CORP. TYPE W COIL LEFT HAND

**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 bolts present and in good condition. See Photo DSC01025 for example of condition.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*Bolts are painted. No corrosion evident. (See Photos DSC00304 & 00309)*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*No visible cracks on 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 consistent with Dwg. M-3515, March 1975. (NO POSTINGS) - DJH 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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B035 Equip. Class<sup>1</sup> 10 – Air Handlers

Equipment Description RB HVAC EECW Pmp Rm Cooler Unit

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**Interaction Effects**

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

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Seismic Walkdown Checklist

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Sheet 3 of 3  
Status:  Y  N  U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B035 Equip. Class<sup>1</sup> 10 - Air Handlers

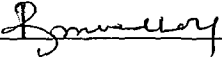
Equipment Description RB HVAC EECW Pmp Rm Cooler Unit

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

*None.*

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1:  Date: 8/8/12

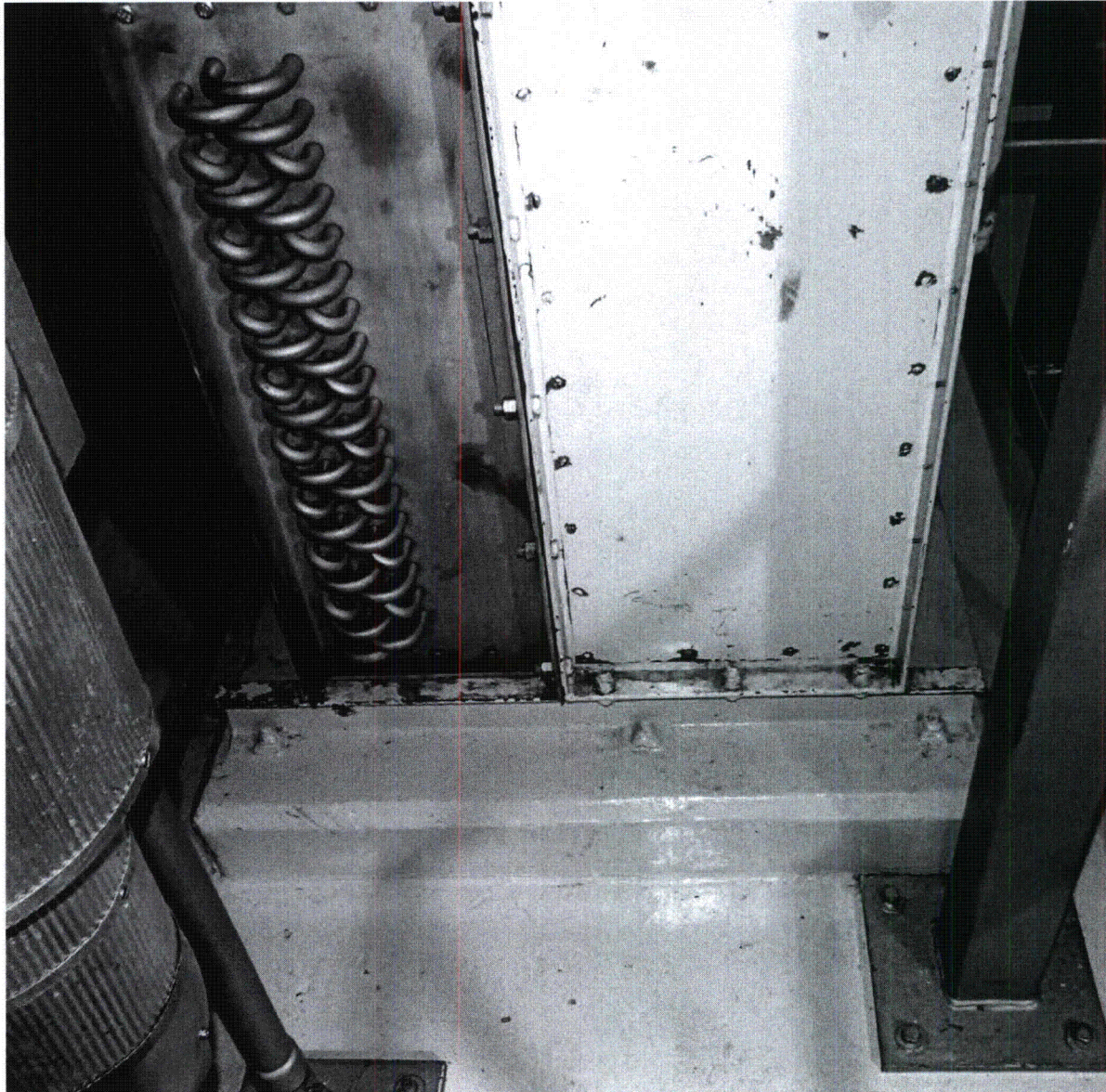
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2:  Date: 08/08/12

**Seismic Walkdown Pictures**

Equipment ID No. T4100B035 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC EECW PUMP ROOM COOLER UNIT



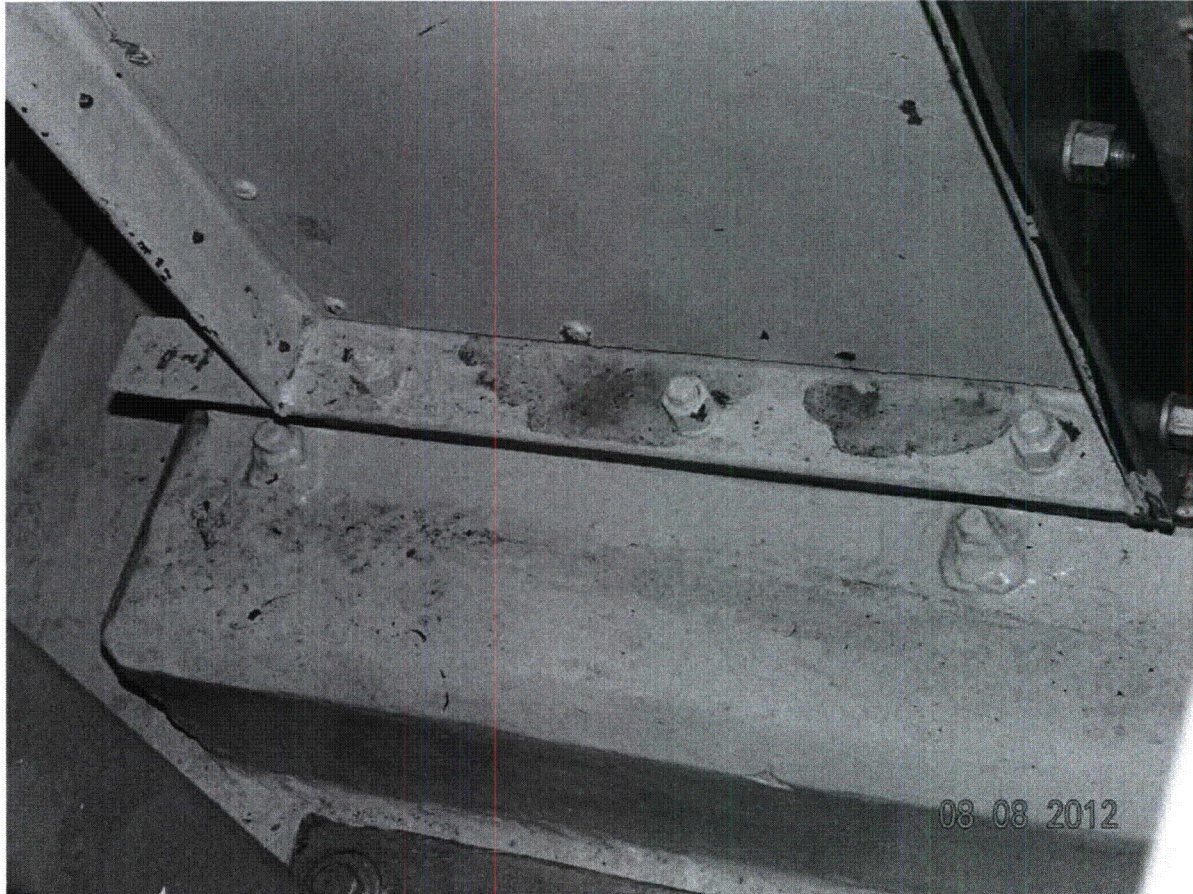
(DSC001025)

BOLT CONFIGURATION

**Seismic Walkdown Pictures**

Equipment ID No. T4100B035 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC EECW PUMP ROOM COOLER UNIT



(DSC00304)

BOLT CONFIGURATION (REF DWG. M-3515)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B035 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC EECW PUMP ROOM COOLER UNIT



(DSC00309)

ANCHOR BOLTS AS-BUILT CONDITION

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B044 Equip. Class<sup>1</sup> 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Units

Location: Bldg. AB Floor El. 643'-6" Room, Area B-22W, Col. F-10

Manufacturer, Model, Etc. (optional but recommended) Philips Ind. Inc Model BC150

**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   
*All anchors visible*  
(SEE PICTURES DSCN0159, DSCN0163, DSCN0166, DSCN0167) ~ DJK 10/11/12
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A   
*All anchor bolts visible and in good condition. No bent, broken or missing hardware evident.*  
(SEE PICTURES DSCN0159, DSCN0163, DSCN0166, DSCN0167) ~ DJK 10/11/12
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A   
*Anchorage is free of corrosion.*  
(SEE PICTURES DSCN0159, DSCN0163, DSCN0166, DSCN0167) ~ DJK 10/11/12
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A   
*The concrete at the anchorage is in serviceable condition. No cracks observed.*  
(SEE PICTURES DSCN0159, DSCN0163, DSCN0166, DSCN0167) ~ 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 an anchorage configuration verification is required.)  
*See M-5436 Rev. A. (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   
*Possible rattle space violation with 1"Ø conduit to TSE-T41-N452 (see photo DSCN0163). Note: See attached hand calculation for resolution. Rattle space is sufficient.*  
(SEE PICTURE DSCN0169) ~ DJK 10/11/12

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

JML



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B044 Equip. Class<sup>1</sup> 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Units

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*No soft targets susceptible to 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 block walls or ceiling tiles. Lights do not pose a collapse risk (connected with cables & chains).*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Flex conduit attached to unit.*
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  
*Possible rattlespace violation with 1"Ø conduit to TSE-T41-N452 (see photo DSCN0163). Note: See attached hand calculation of maximum frame deflection. Rattlespace is sufficient.*

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Seismic Walkdown Checklist

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Sheet 3 of 3  
Status: Y N U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100B044 Equip. Class<sup>1</sup> 10 - AIR HANDLERS

Equipment Description AIR HANDLING UNIT

Comments (Additional pages may be added as necessary)

*Seismic Engineer Walkdown PSE-53 Qualified*

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

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: Joseph McVee Date: 08/08/2012

Seismic Walkdown "Hand Calculation"

Equipment ID No. T4100B044 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Unit

PIS No. T4100B044 MAXIMUM SEISMIC DEFLECTION  
 LNERE - 09.18.2012

STRUCTURE SKETCH

43 1/2"  
 OUT-TO-OUT

25' = l

45 3/8"

20 3/8" = a

L2x2x1/4

L2x2x1/4

L2x2x1/4

P

GIVEN:  
 5% DAMPING (LFSAR TBL 3.7-2, WELDED STRUCTURE)  
 FRAME WEIGHT W1 = 268#  
 (SEE D108-6302 SHEETS 1-3)  
 FAN COIL WEIGHT W2 = 880#  
 (SEE D108-0002, NOTE 5)  
 SA = 1.7 (LFSAR FIG. 3.7-63, 5% DAMPING, PEAK OF GRAPH (CONSERVATIVE))

$P = (W1 + W2) SA$

WHERE:  $W = W1 + W2 = 268# + 880# = 1148#$

$\therefore P = 976# = 0.976 \text{ kips}$

\* CALCULATE DEFLECTION BASED ON CANTILEVER-WITH-BACKSPAN BEHAVIOR OF BRACED VERTICAL:

$$\Delta_{max} = \frac{Pa^2(l+a)}{3EI}$$

WHERE:  $I = 0.348 \text{ in}^4$  ATSC 7th Ed. Pg. 1-57  
 $E = 29,000 \text{ ks}$   
 $a = 20 \frac{3}{8}$   
 $l = 25'$   
 $P = 0.976 \text{ lbs}$

$\therefore \Delta_{max} = \frac{0.976 \text{ k} \times (20 \frac{3}{8})^2 (25' + 20 \frac{3}{8})}{3 \times 29,000 \text{ ks} \times 0.348 \text{ in}^4} = 0.61"$

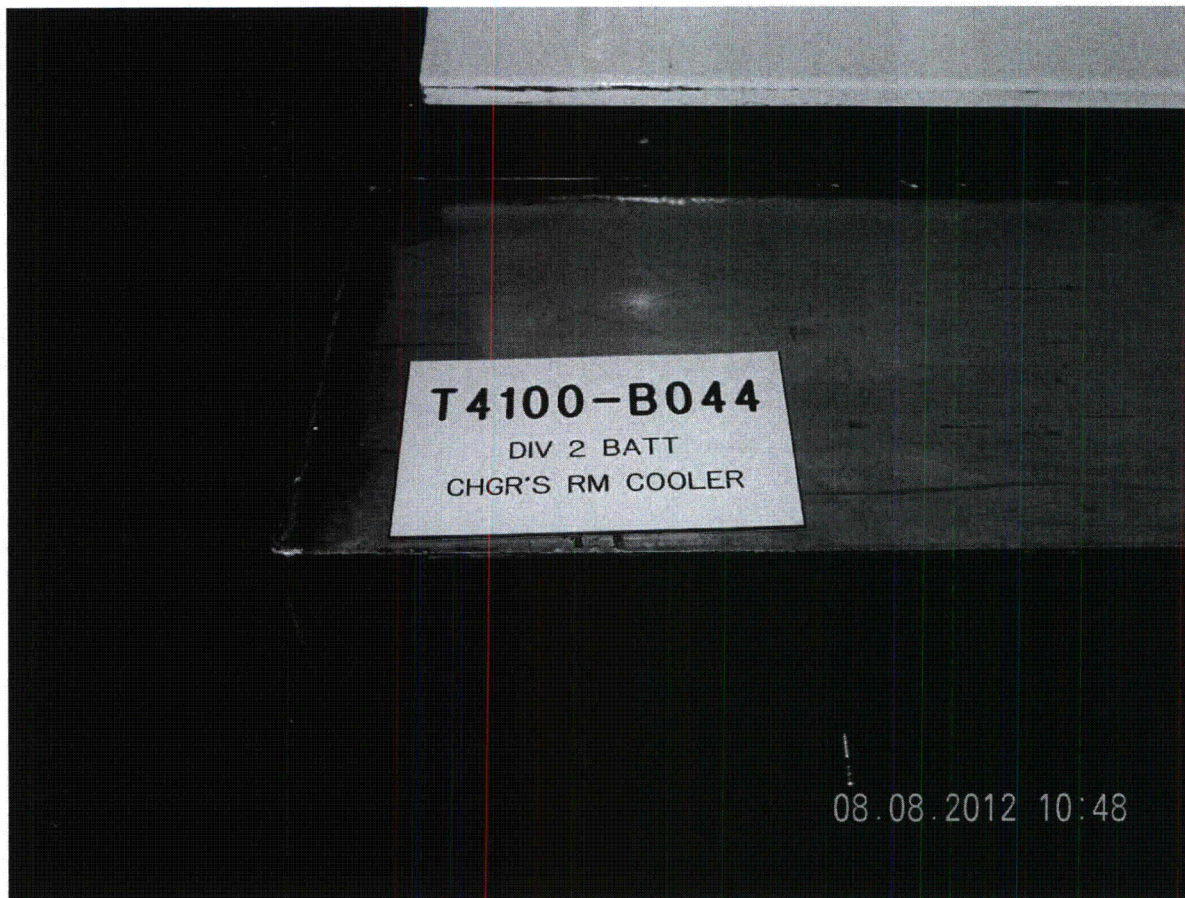
TOTAL CLEARANCE =  $\Delta_{ALLOWABLE} = 0.75"$

$[\Delta_{max} = 0.61"] \ll [\Delta_{ALLOWABLE} = 0.75"] \therefore \text{OK}$

**Seismic Walkdown Pictures**

Equipment ID No. T4100B044 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Unit

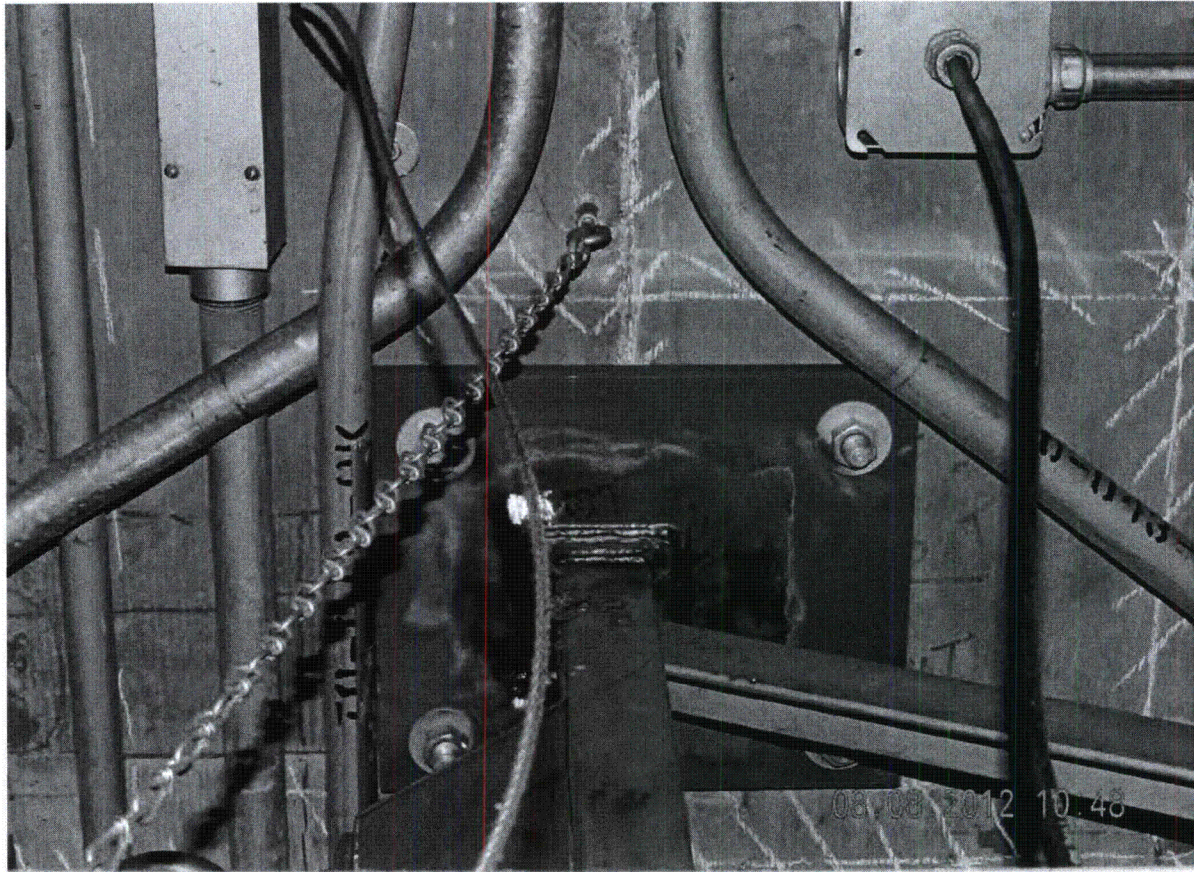


(DSCN0157)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B044 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Unit

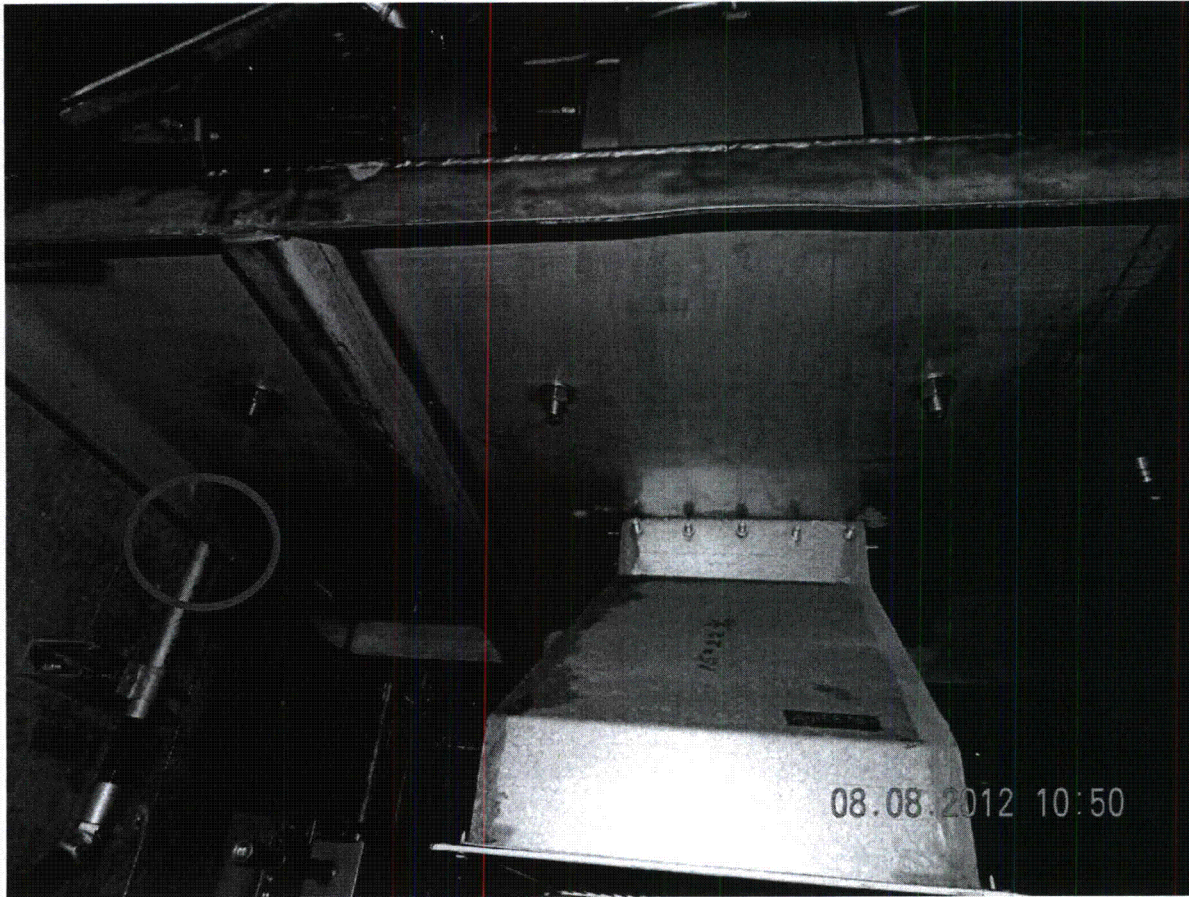


(DSCN0159)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B044 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Unit

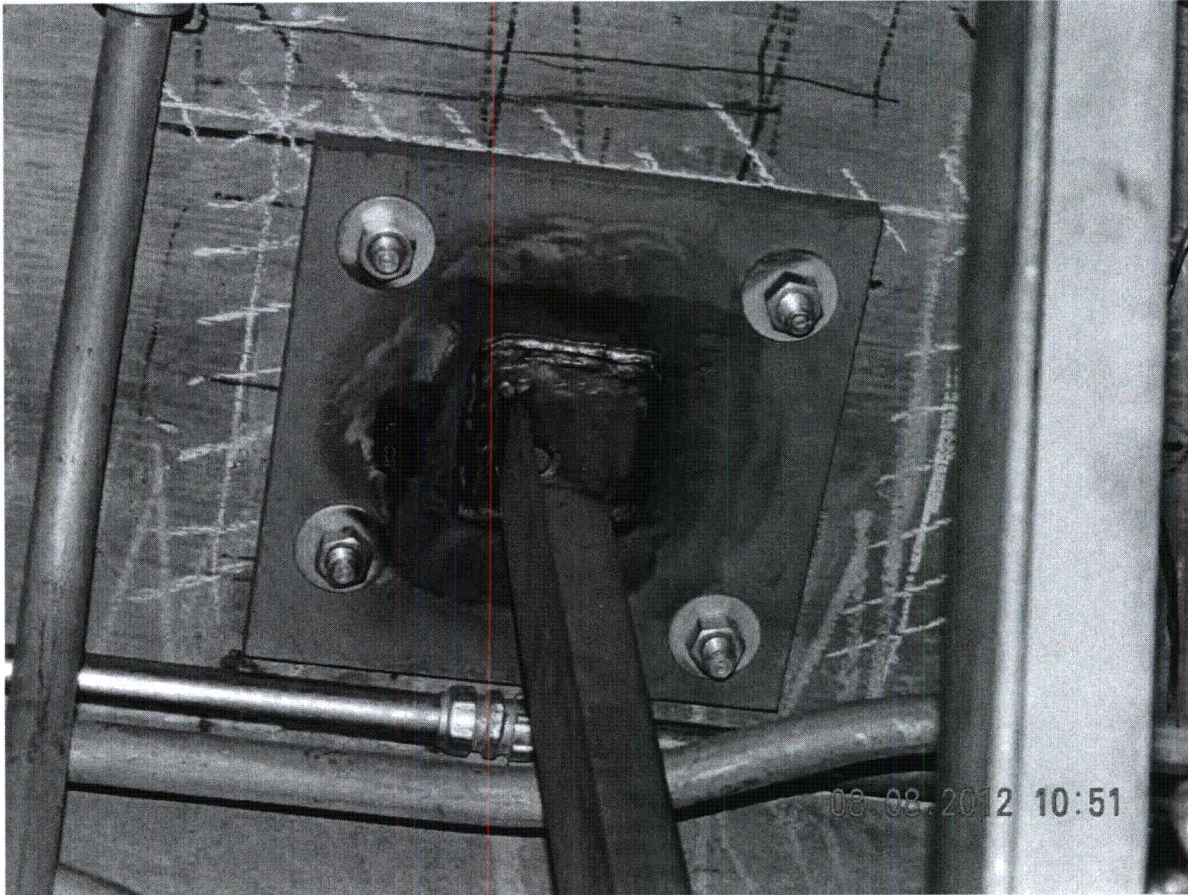


(DSCN0163)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B044 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Unit

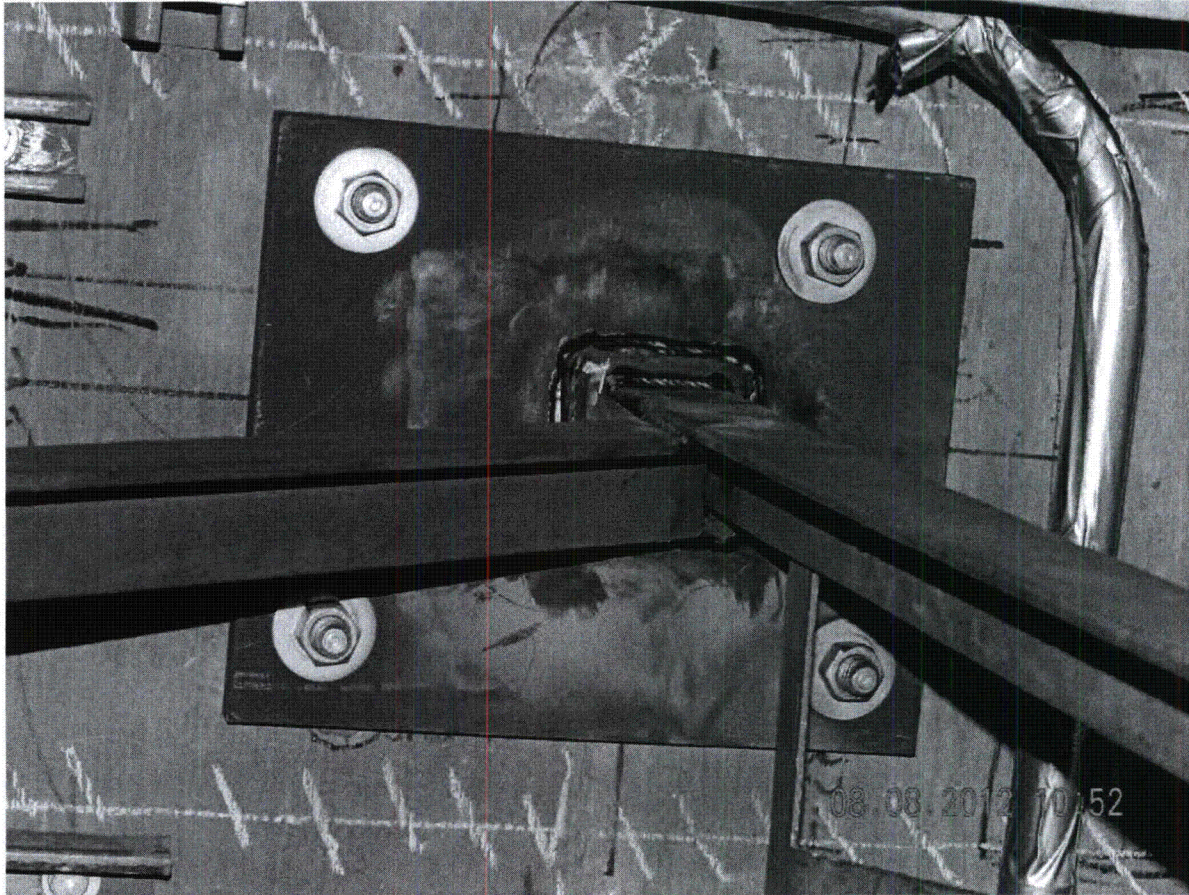


(DSCN0166)

**Seismic Walkdown Pictures**

Equipment ID No. T4100B044 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Unit



(DSCN0167)



**Seismic Walkdown Pictures**

Equipment ID No. T4100B044 Equipment Class: 10, Air Handlers

Equipment Description RBHVAC Div 2 Batt. Charger Rm. Fan Coil Unit



(DSCN0169)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100C009 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RBHVAC Exhaust Fan Div II

Location: Bldg. AB Floor El. 653'-0" Room, Area B-22W, Col. F-11

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

**Instructions for Completing Checklist**

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

**Anchorage**

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?  Y  N  U  
*Six anchors to ceiling. Fan output bolted to the wall.*  
*(SEE PICTURE DSCN0146, DSCN0147, DSCN0148, DSCN0149) ~ DJK 10/11/12*
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A  
*Anchorage is in good condition and is free of bent, broken, missing or loose hardware.*  
*(SEE PICTURE DSCN0146, DSCN0147) ~ DJK 10/11/12*
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*Bolts look new and are free of corrosion and oxidation.*  
*(SEE PICTURE DSCN0146, DSCN0147) ~ DJK 10/11/12*
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.*
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 plant documentation. See DSN: H-0010, Rev. 0.*
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

JML

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100C009 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RBHVAC Exhaust Fan Div II

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Tight area – all equip/conduit well supported in accordance with seismic requirement - acceptable*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?  Y  N  U  N/A  
*HVAC, cables and lighting adequately supported. No ceiling tiles or block walls.*
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  
*No other seismic conditions identified. See Question 7.*

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. T4100C009 Equip. Class<sup>1</sup> 9 - FANS  
Equipment Description RB HVAC EXHAUST FAN

Comments (Additional pages may be added as necessary)

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1: David G. Dickstein Date: 8/8/2012

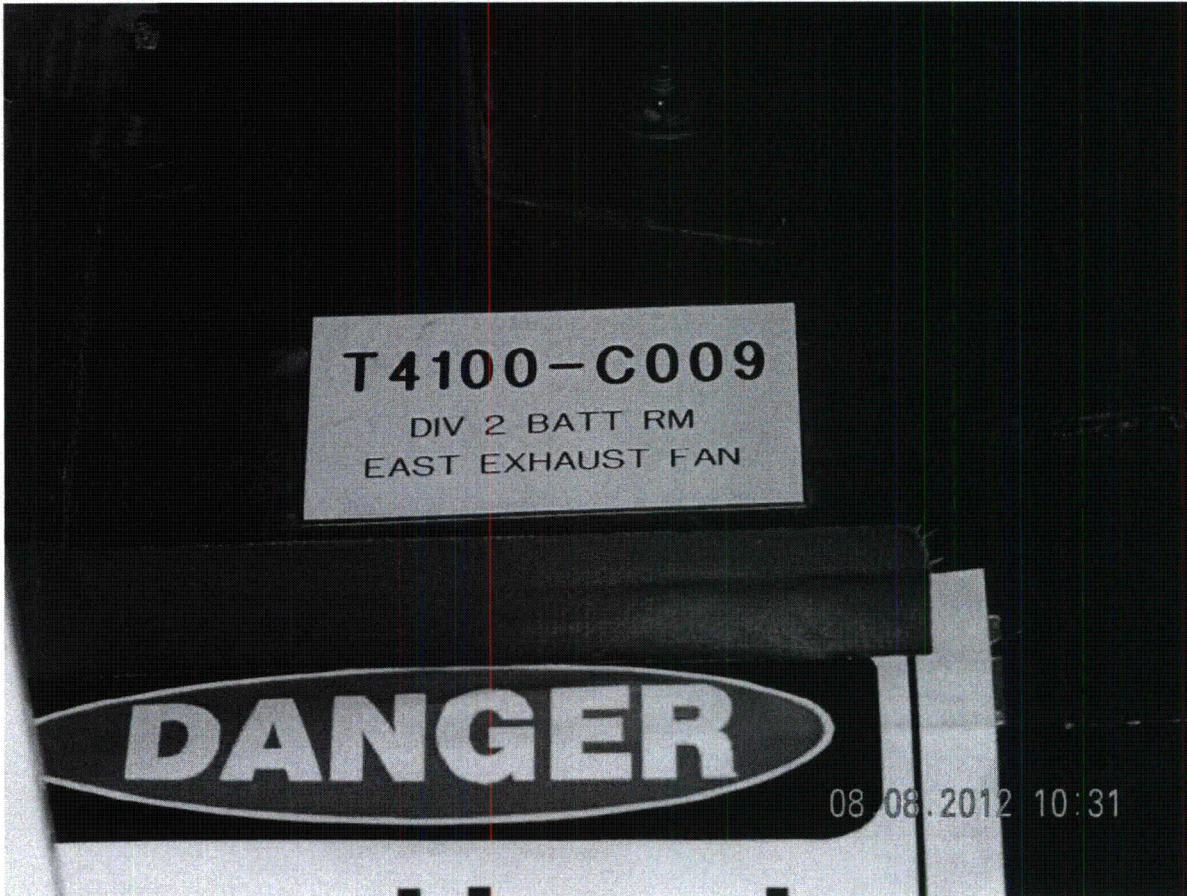
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: Joseph M. Allen Date: 08/08/2012

**Seismic Walkdown Pictures**

Equipment ID No. T4100C009 Equipment Class: 9, Fans

Equipment Description RBHVAC Exhaust Fan Div. II

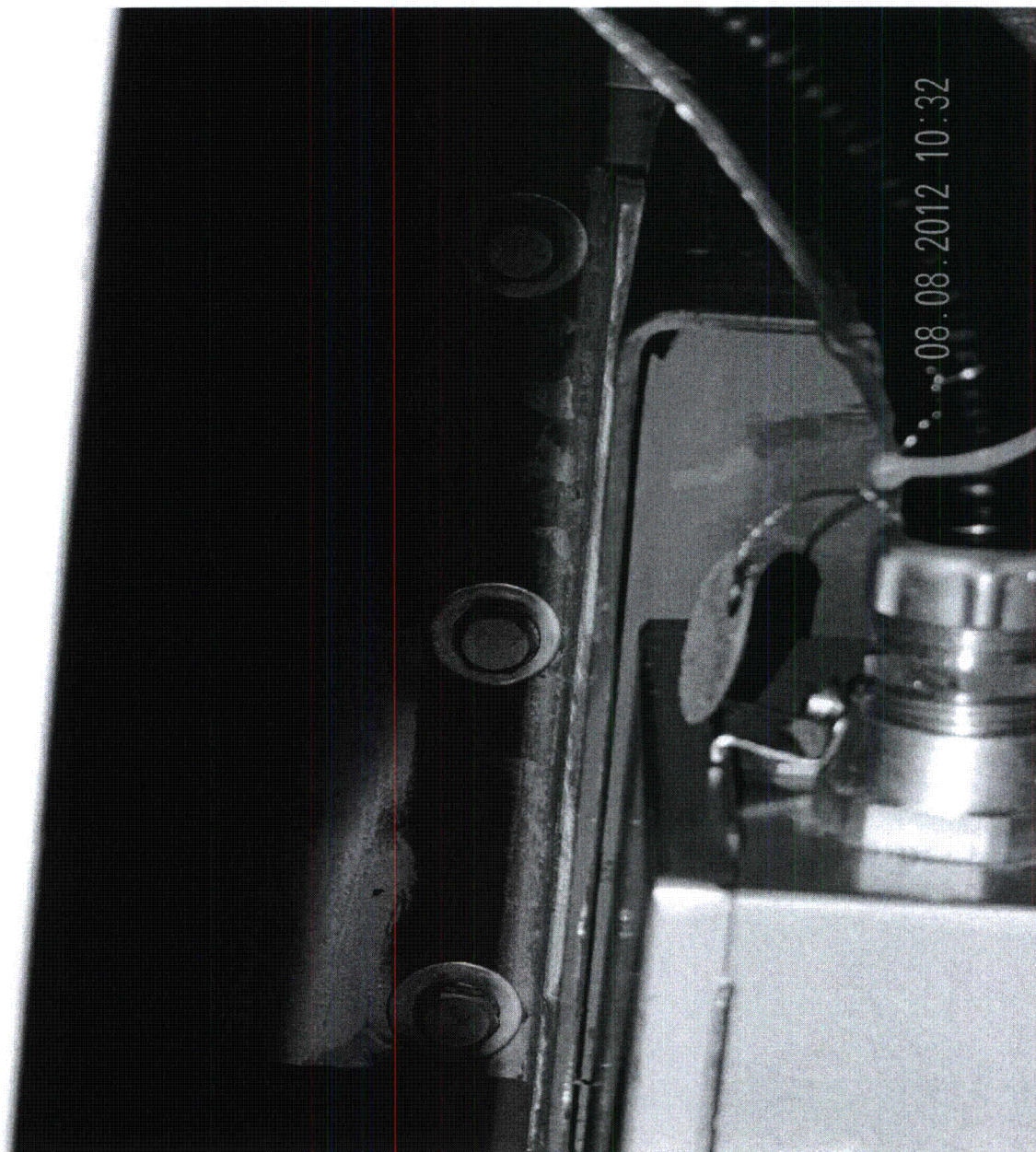


(DSCN0145)

**Seismic Walkdown Pictures**

Equipment ID No. T4100C009 Equipment Class: 9, Fans

Equipment Description RBHVAC Exhaust Fan Div. II

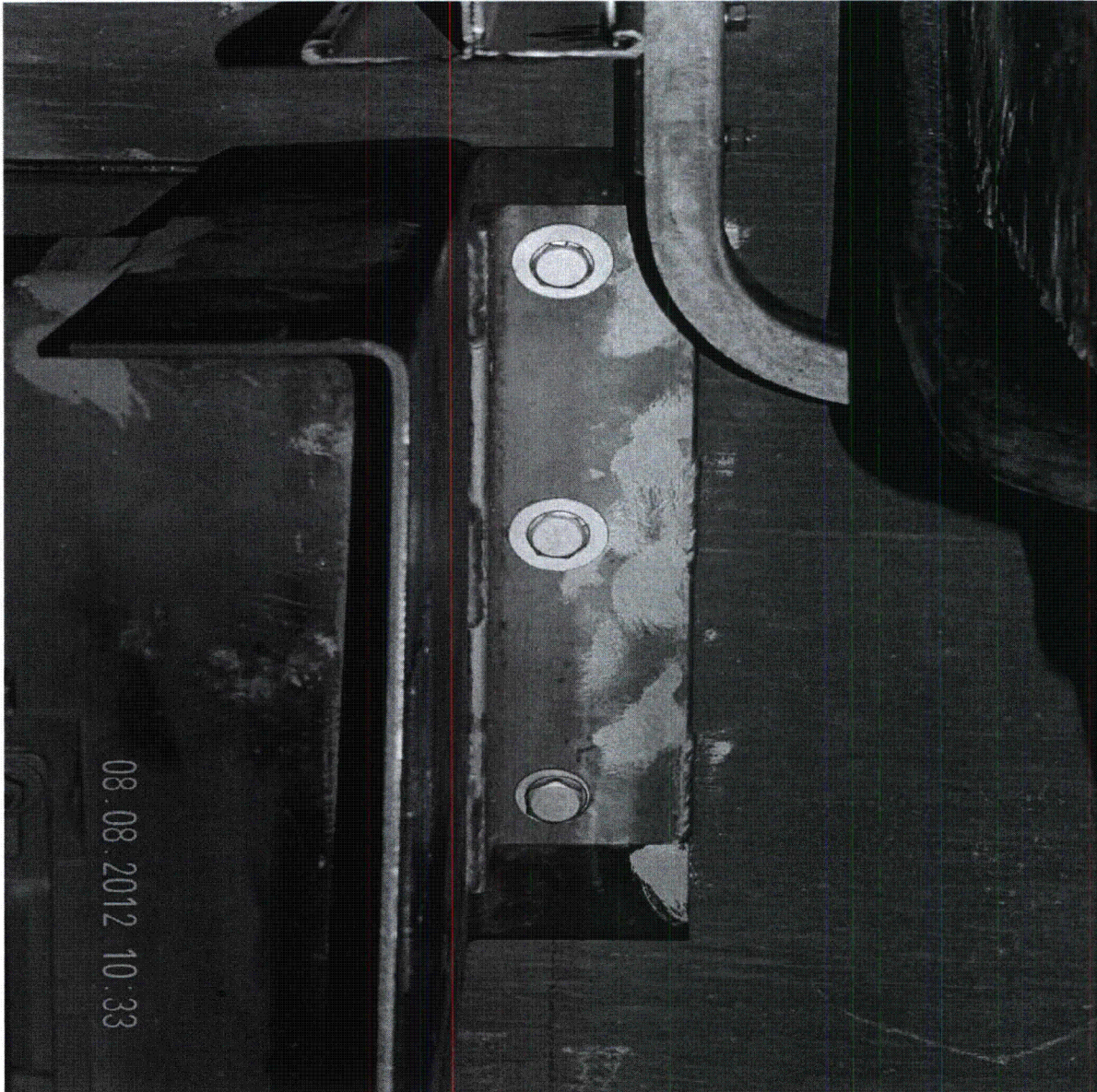


(DSCN0146)

**Seismic Walkdown Pictures**

Equipment ID No. T4100C009 Equipment Class: 9, Fans

Equipment Description RBHVAC Exhaust Fan Div. II

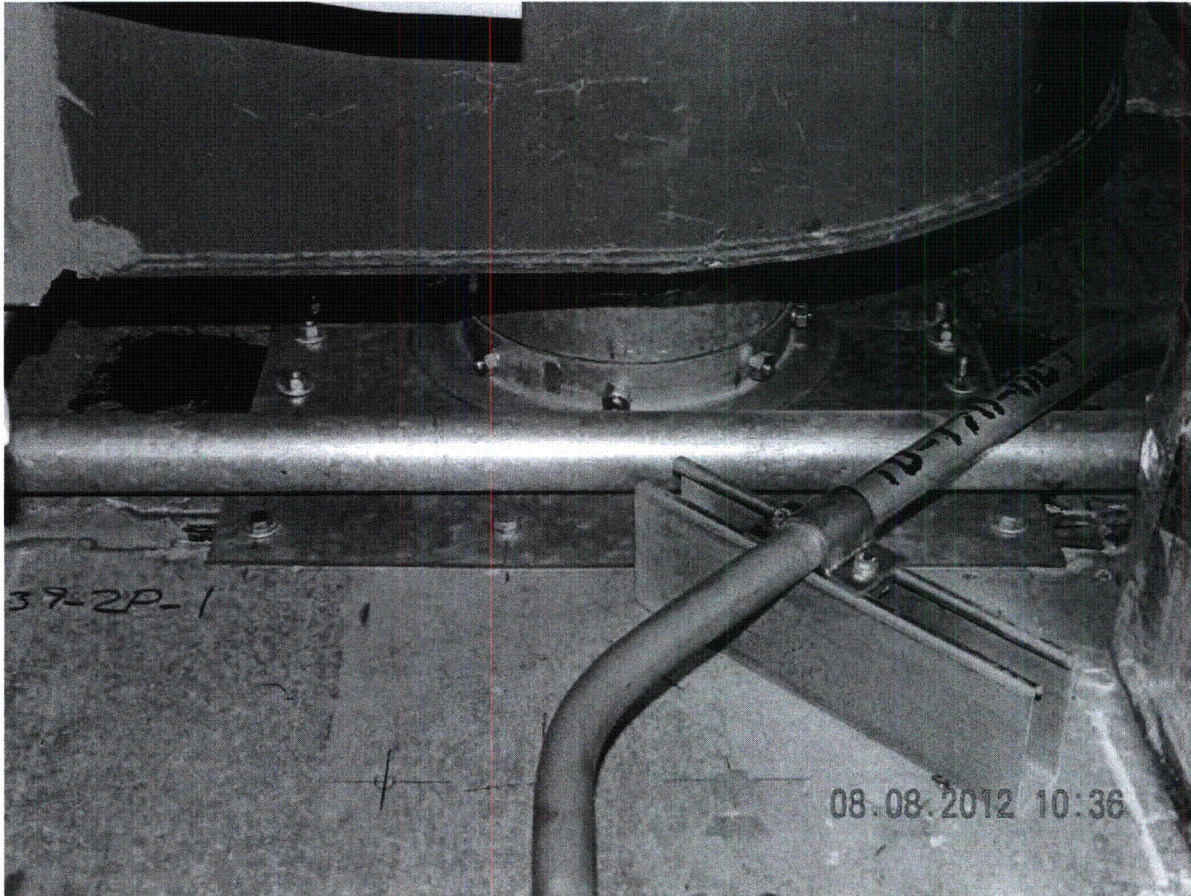


(DSCN0147)

**Seismic Walkdown Pictures**

Equipment ID No. T4100C009 Equipment Class: 9, Fans

Equipment Description RBHVAC Exhaust Fan Div. II



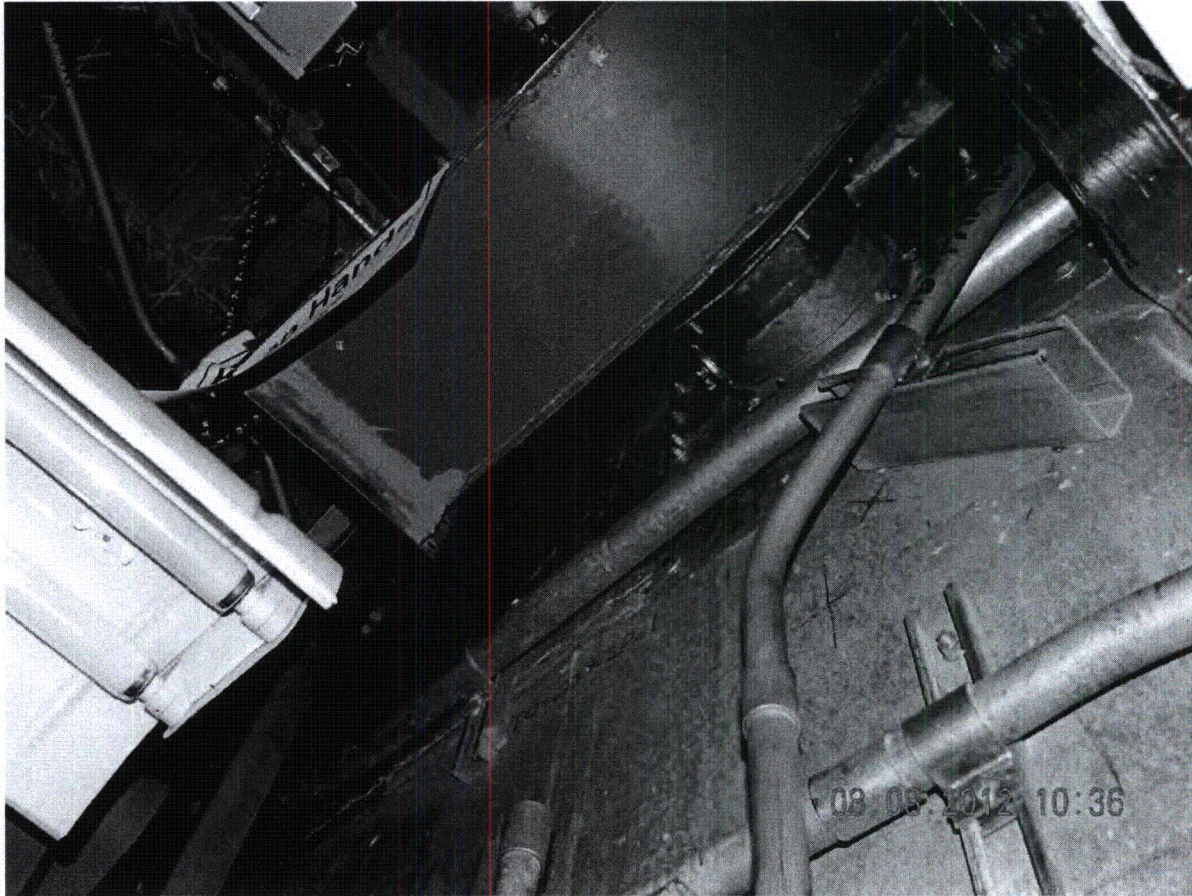
(DSCN0148)



**Seismic Walkdown Pictures**

Equipment ID No. T4100C009 Equipment Class: 9, Fans

Equipment Description RBHVAC Exhaust Fan Div. II



(DSCN0149)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100F041 Equip. Class<sup>1</sup> 7, Pneumatic-Operated Valves

Equipment Description Div I CCHVAC Outside Air Damper

Location: Bldg. AB Floor El. 670'-0" Room, Area B-24, Col. H-12

Manufacturer, Model, Etc. (optional but recommended) Hydrotork - SSM Industries

**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  
*Mounting bolts visible. (SEE PICTURES DSC00076, DSC00078) - DJK 10/11/12*
  
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A   
*Anchorage is in good condition and is free of bent, broken, missing or loose hardware. (SEE PICTURE DSC00078) - DJK 10/11/12*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A   
*Bolts in good condition and are free of corrosion and oxidation. (SEE PICTURE DSC00078) - DJK 10/11/12*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A   
*Directly mounted to the ductwork.*  
*JAN 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 an anchorage configuration verification is required.)*  
*Anchorage configuration is consistent with plant documentation. 4 bolts observed - 1 1/4" across flats - vendor manual show 3/4" diameter - for 3/4" Ø bolt 1 1/4" across the flats is correct.*
  
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

*JMK*

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4100F041 Equip. Class<sup>1</sup> 7, Pneumatic-Operated Valves

Equipment Description Div I CCHVAC Outside Air Damper

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Instrument air and conduit well supported. IA supports are massive.*
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 – no lights close. HVAC and cables adequately supported*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Flex conduit with loops.*
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 seismic conditions identified.*

JML

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Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3  
Status: Y N U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T400E041 Equip. Class' 7-PNEUMATIC OPERATED VALVES

Equipment Description DIV 1 CCHVAC OUTSIDE AIR DAMPER

Comments (Additional pages may be added as necessary)

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 : David Dickew Date: 16th August 2012

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2 : Joseph M. Bellere Date: 08/16/2012

**Seismic Walkdown Pictures**

Equipment ID No. T4100F041 Equipment Class: 7, Pneumatic-Operated Valves

Equipment Description Div. I CCHVAC Outside Air Damper

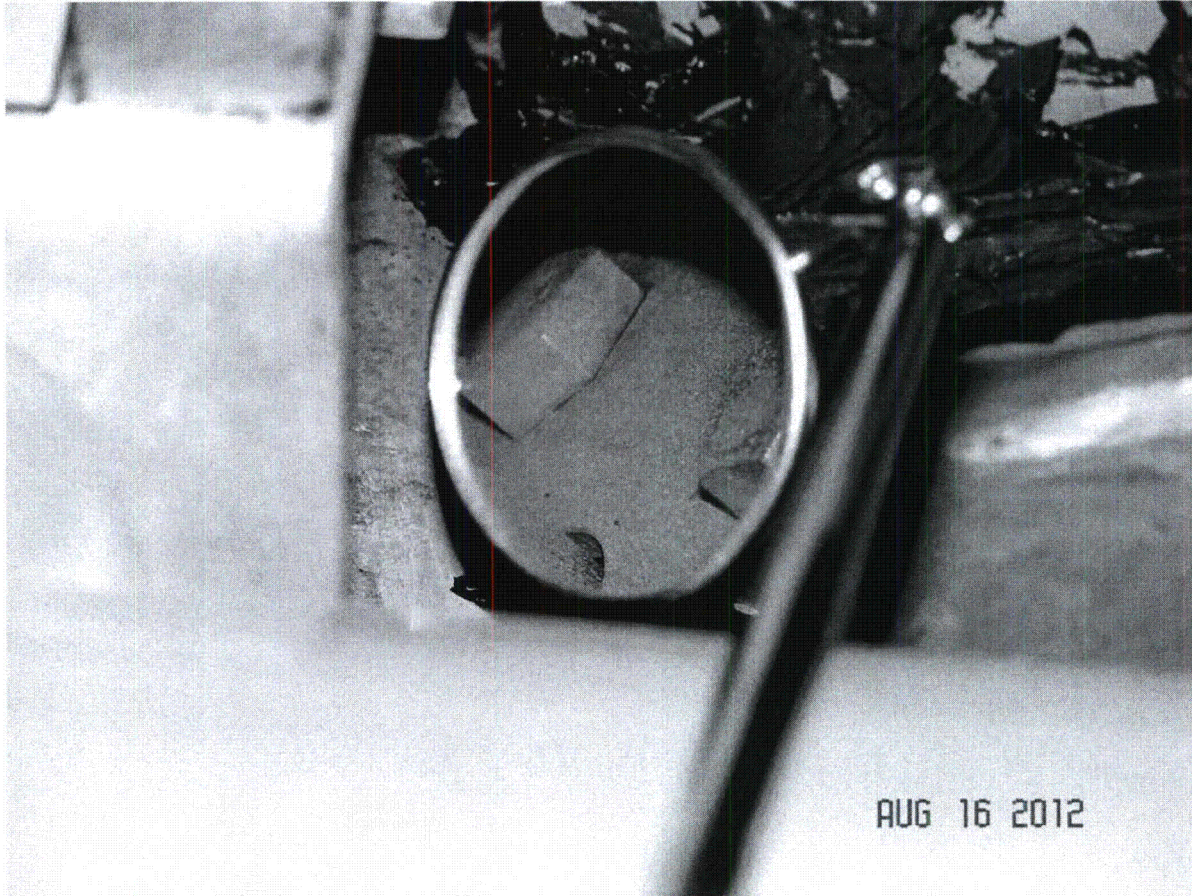


(DSC00076)

**Seismic Walkdown Pictures**

Equipment ID No. T4100F041 Equipment Class: 7, Pneumatic-Operated Valves

Equipment Description Div. I CCHVAC Outside Air Damper



(DSC00078)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T41F101A Equip. Class<sup>1</sup> 8, Motor/Solenoid-Operated Valves

Equipment Description Div I - CCHVAC Air Modulation Damper SOV

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

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

**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  
*Bolts visible. (SEE PICTURES DSCN0473, DSCN0474) ~ DJK 10/11/12*
  
2. Is the anchorage free of bent, broken, missing or loose hardware?  Y  N  U  N/A  
*Anchorage is in good condition and is free of bent, broken, missing or loose hardware.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*Bolts in good condition and are free of corrosion and oxidation.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*Not attached to 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 an anchorage configuration verification is required.)  
*Anchorage configuration is consistent with plant documentation. All bolts and bracket verified - Ref. Dwg. I-2612-76\* and I-2612-04.\**  
*\*REFERENCE DOCUMENT (LATEST REVISION) HAVE NO APPLICABLE FINDINGS. / 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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T41F101A Equip. Class<sup>1</sup> 8, Motor/Solenoid-Operated Valves

Equipment Description Div I - CCHVAC Air Modulation Damper SOV

---

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Located inside panel H21P296A.*
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 inside H21P296A are mounted seismically. All equipment, cables and tubing is mounted seismically.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Attached tubing has 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  
*No other seismic conditions identified.*

JML



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Seismic Walkdown Checklist

NJPR-12-0043

Sheet 3 of 3  
Status: Y N U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T41F101A Equip. Class 7-PNEUMATIC OPERATING VALVE

Equipment Description DIV 1- CCHVAC OUTSIDE AIR MODULATING DAMPER SOV.

Comments (Additional pages may be added as necessary)

PANEL H21-P296A IS EVALUATED FOR SEISMIC  
INTERACTION IN A SEPARATE PACKAGE

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #1: David G. Dickson Date: 16th August 2012

Seismic Engineer Walkdown PSE-53 Qualified

Evaluator #2: Joseph M. Folare Date: 08/16/2012

**Seismic Walkdown Pictures**

Equipment ID No. T41F101A Equipment Class: 8, Motor/Solenoid-Operated Valves

Equipment Description Div. I - CCHVAC Air Modulation Damper SOV

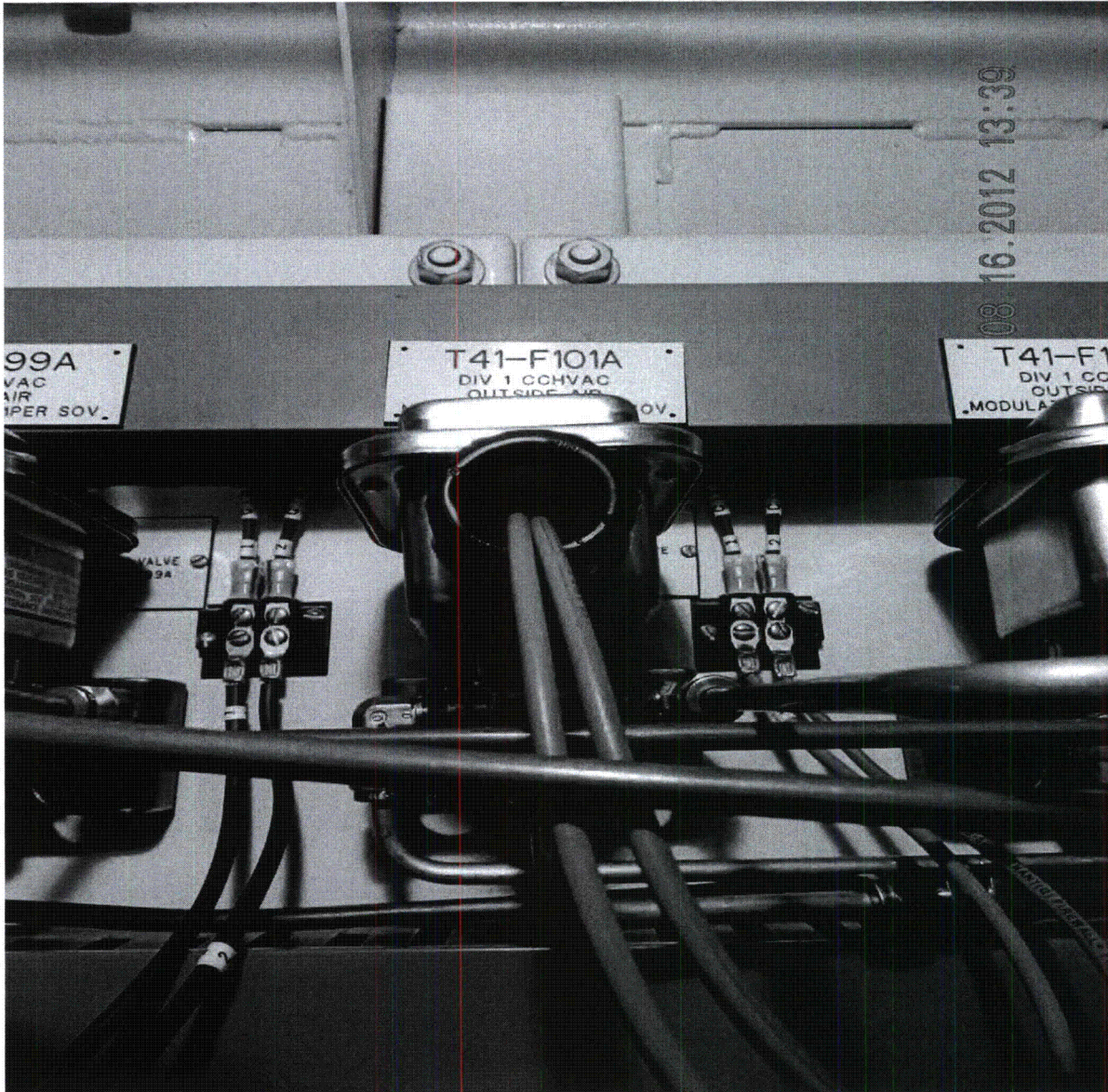


(DSCN0473)

**Seismic Walkdown Pictures**

Equipment ID No. T41F101A Equipment Class: 8, Motor/Solenoid-Operated Valves

Equipment Description Div. I - CCHVAC Air Modulation Damper SOV

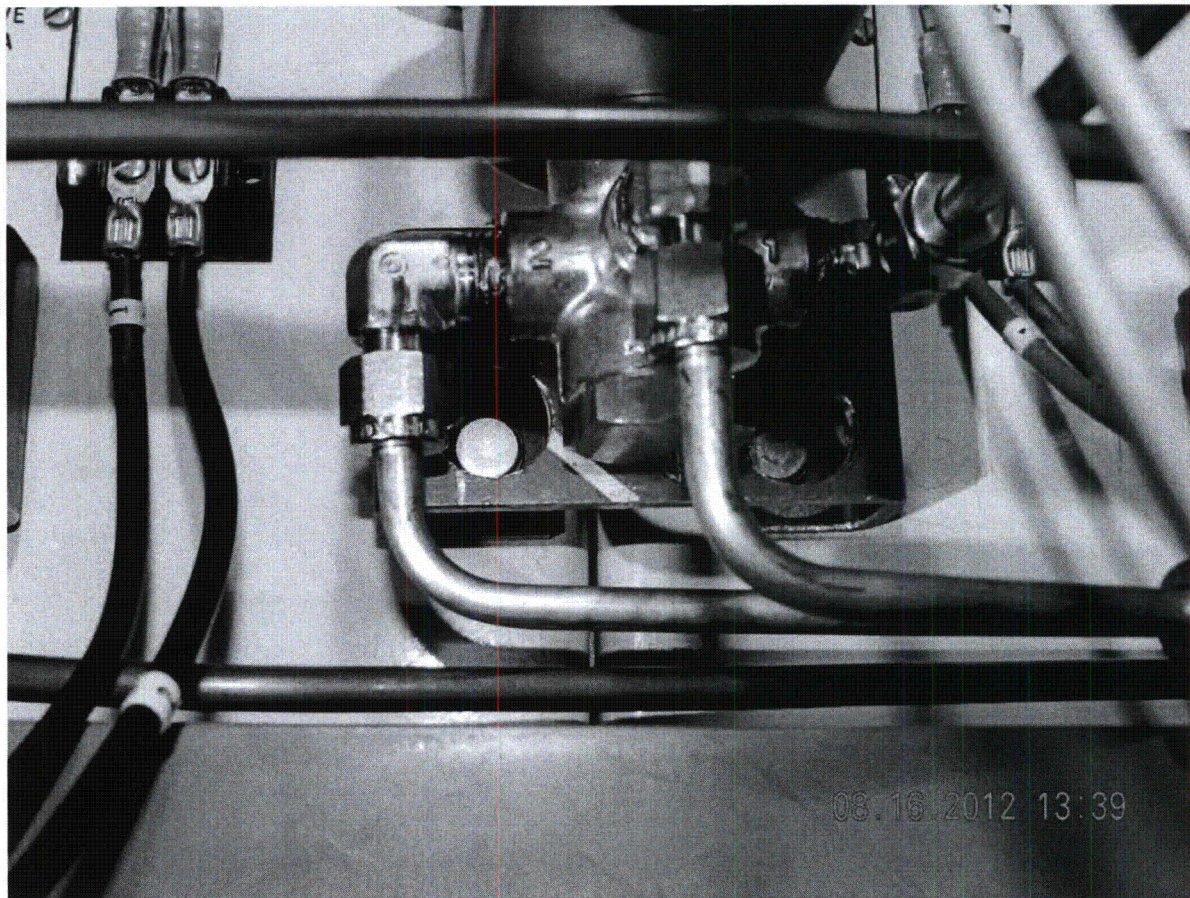


(DSCN0474)

**Seismic Walkdown Pictures**

Equipment ID No. T41F101A Equipment Class: 8, Motor/Solenoid-Operated Valves

Equipment Description Div. I - CCHVAC Air Modulation Damper SOV



(DSCN0475)

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T4600F407 Equip. Class<sup>1</sup> 7, Pneumatic Operated Valve

Equipment Description AOV @ El. 647'-02" (SGTS from RB Exh Sys Iso AOV)

Location: Bldg. RB Floor El. 641'-6" Room, Area Room A-24, Col F-13

Manufacturer, Model, Etc. (optional but recommended) Jamesbury, 24-8229 EA Mod. 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   
*Valve is attached to piping, not to building. Bolts securing valve to piping are in good condition (see Photo DSC00222).*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y  N  U  N/A   
*Flange bolts are free of corrosion.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y  N  U  N/A   
*No anchors embedded 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 an 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. T4600F407 Equip. Class<sup>1</sup> 7, Pneumatic Operated Valve

Equipment Description AOV @ El. 647'-02" (SGTS from RB Exh Sys Iso AOV)

---

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Overhead HVAC and cable trays are adequately supported. There are no soft targets on the valve that could be impacted.*
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 or lighting, and no masonry block walls. (see Photo DSC00220)*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*Lines have adequate flexibility. (see Photo DSC00220)*
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 seismic conditions in this area that could adversely affect the valve's safety functions.*

**Seismic Walkdown Checklist (SWC)**

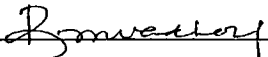
Equipment ID No. T4600F407 Equip. Class<sup>1</sup> 7, Pneumatic Operated Valve

Equipment Description AOV @ El. 647'-02" (SGTS from RB Exh Sys Iso AOV)


Comments (Additional pages may be added as necessary)

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 :  Date: 8/7/12

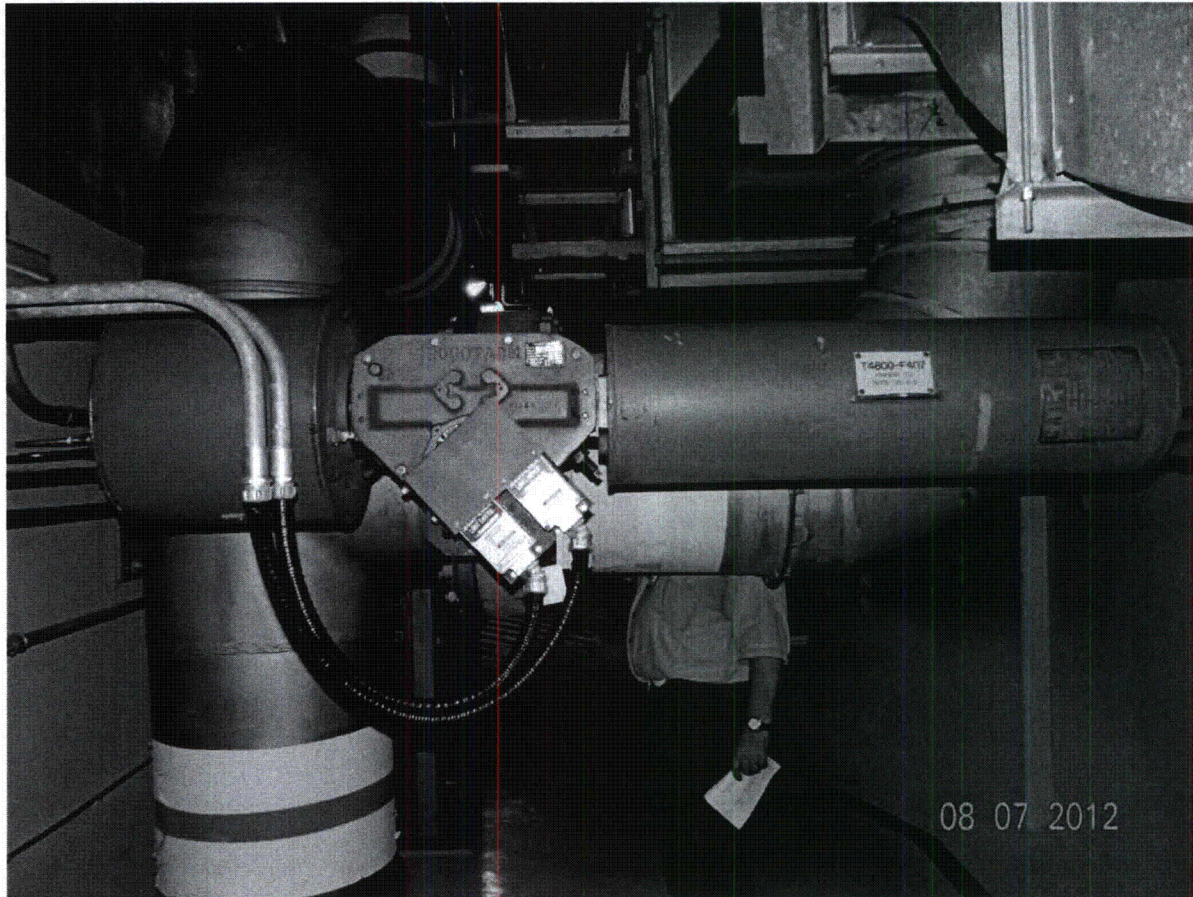
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2 :  Date: 08/07/12

**Seismic Walkdown Pictures**

Equipment ID No. T4600F407 Equipment Class: 7, Pneumatic Operated Valve

Equipment Description AOV @ El. 647'-02" (SGTS from RB Exh Sys Iso AOV)



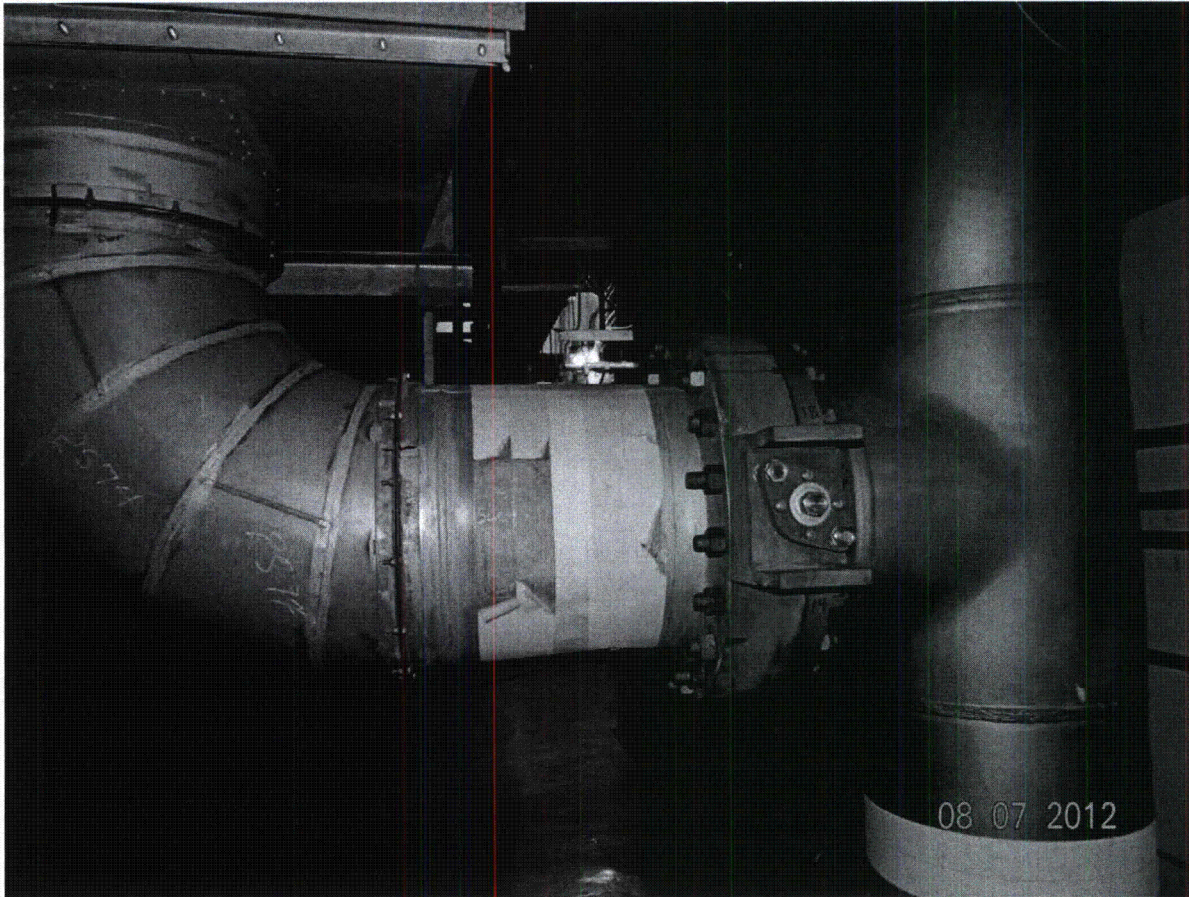
(DSC00220)



**Seismic Walkdown Pictures**

Equipment ID No. T4600F407 Equipment Class: 7, Pneumatic Operated Valve

Equipment Description AOV @ El. 647'-02" (SGTS from RB Exh Sys Iso AOV)



(DSC00222)

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. T49P400A Equip. Class<sup>1</sup> 19, Temperature Sensors

Equipment Description PC Pneumatic Div. I Supply instrumentation Rack

Location: Bldg. RB Floor El. 583'-6" Room, Area A-12, Col. B-13

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 anchorage is present and securely fastened. (See pictures 3 and 4.)*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*No corrosion was observed.*
  
4. Is the anchorage free of visible cracks in the concrete near the anchors?  Y  N  U  N/A  
*There are no cracks in the 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 I-2662-01, Rev. H, front view and section B-B (No applicable postings) was field verified, and therefore anchorage is consistent. (See picture 3 and 4.)*
  
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. T49P400A Equip. Class<sup>1</sup> 19, Temperature Sensors

Equipment Description PC Pneumatic Div. I Supply instrumentation Rack

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*There is no observed seismic proximity interaction or danger of falling overhead hazards. (See picture 11.)*

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 observed overhead hazards.*

9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*All attached lines have adequate flexibility. (See picture 1.)*

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 seismic conditions were identified.*

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T49P400A Equip. Class' 19 - Temperature Sensors  
Equipment Description PC Pneumatic Div. I Supply Instrumentation Rack

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

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1: Michael P. Sasso Date: 8/16/12

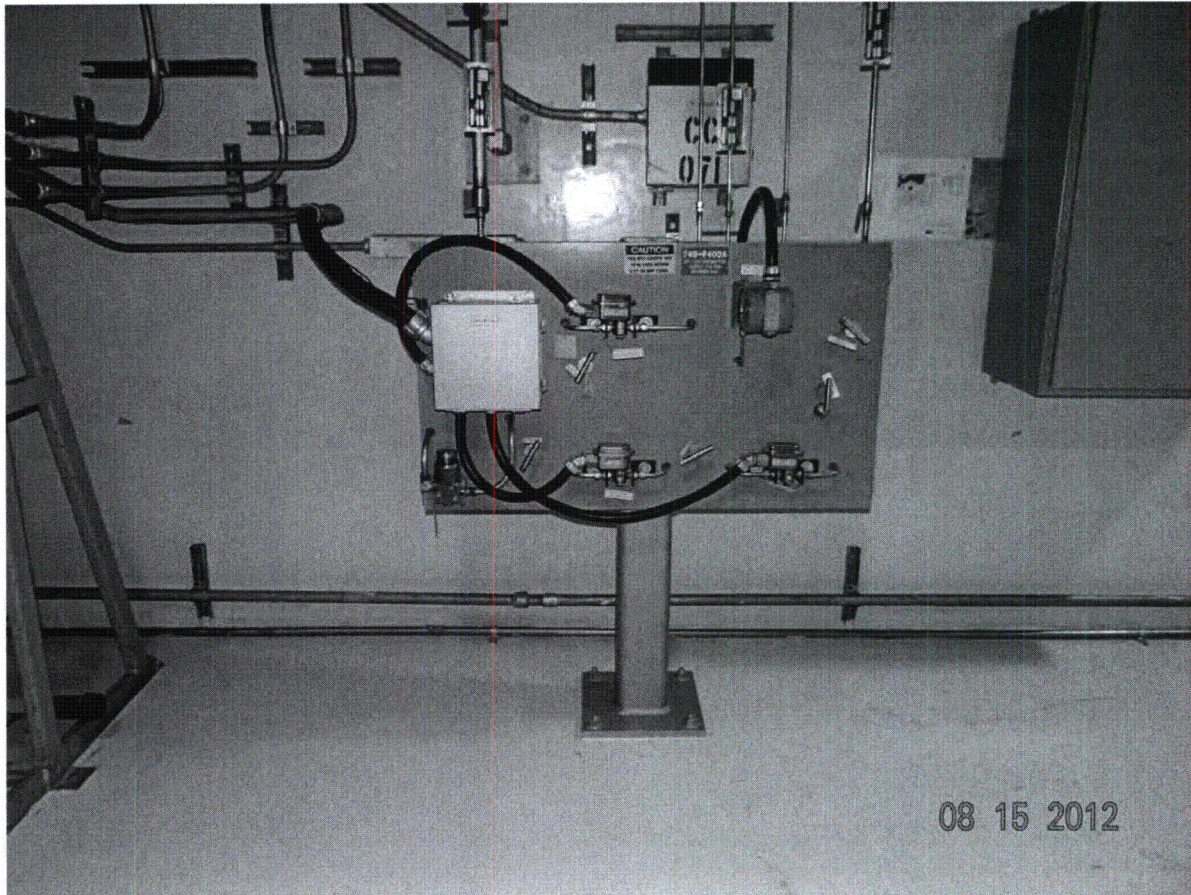
*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: Scott Bauer Date: 8/16/12

**Seismic Walkdown Pictures**

Equipment ID No. T49P400A Equipment Class: 19, Temperature Sensors

Equipment Description PC Pneumatic Div. I Supply Instrumentation Rack

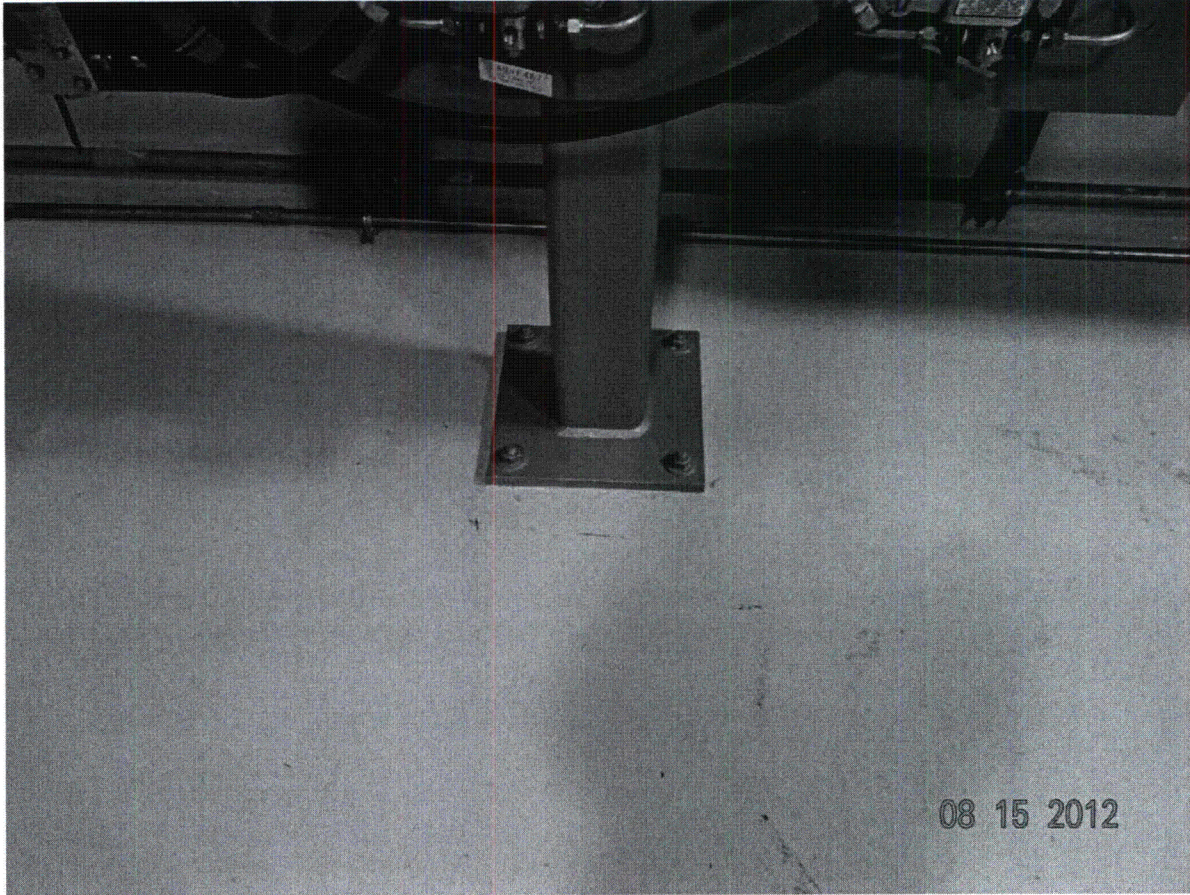


(Picture 1)

**Seismic Walkdown Pictures**

Equipment ID No. T49P400A Equipment Class: 19, Temperature Sensors

Equipment Description PC Pneumatic Div. I Supply Instrumentation Rack

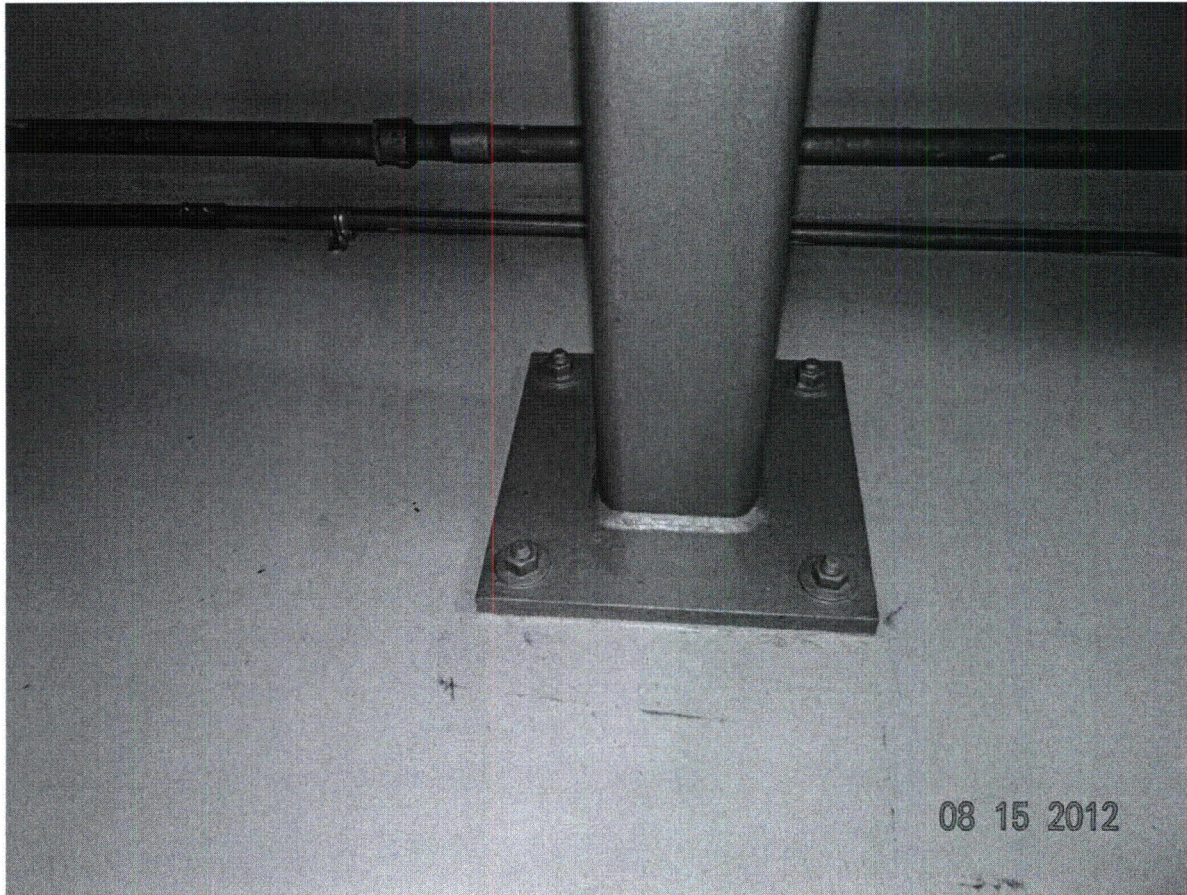


(Picture 3)

**Seismic Walkdown Pictures**

Equipment ID No. T49P400A Equipment Class: 19, Temperature Sensors

Equipment Description PC Pneumatic Div. I Supply Instrumentation Rack

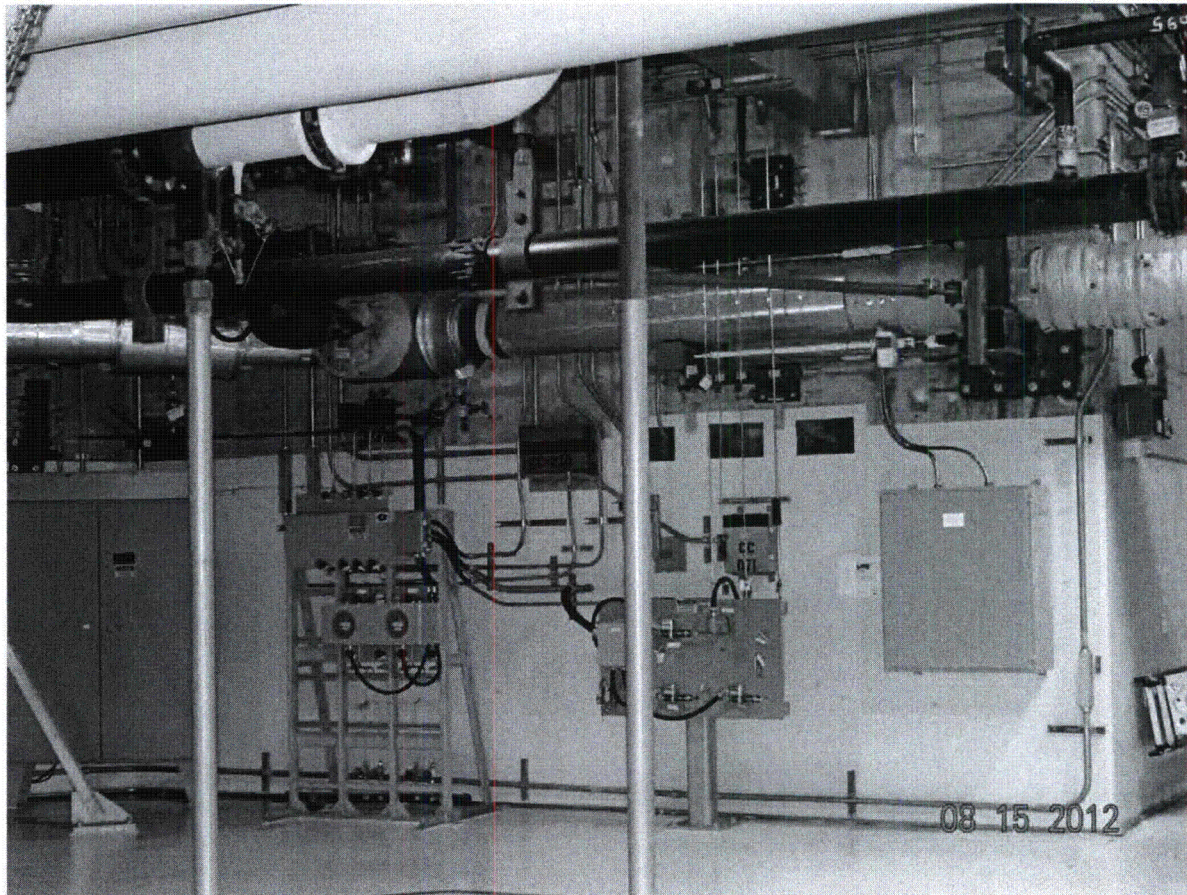


(Picture 4)

**Seismic Walkdown Pictures**

Equipment ID No. T49P400A Equipment Class: 19, Temperature Sensors

Equipment Description PC Pneumatic Div. I Supply Instrumentation Rack



(Picture 11)



**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T50F450 Equip. Class<sup>1</sup> 8-Motor Operated and Solenoid-Operated Valves  
 Equipment Description PC Rad Mon Syst Inlet ISO VLV – (EL 621'-3")  
 Location: Bldg. RB Floor El. 613'-6" Room, Area A-17, Col. B-12  
 Manufacturer, Model, Etc. (optional but recommended) Target Rock, V5-3083 (3/4")

**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  
*The assets anchorage connections are not attached to a civil structure. The asset is a valve (line-mounted) on a pipeline with hardware that is in good condition. Equipment bolts are intact and tightened.*
  
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  
*Not anchored to concrete directly. There are no cracks in the concrete observed nearby.*
  
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  
*The asset is attached to the conduit via solid cylindrical bar. This attachment is rigid enough to restrict movement of the asset during a seismic event per engineering judgment.*

MPS 10/3/12

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T50F450 Equip. Class<sup>1</sup> 8-Motor Operated and Solenoid-Operated Valves  
Equipment Description PC Rad Mon Syst Inlet ISO VLV - (EL 621'-3")

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*The nearby Nitrogen tanks are restrained so that they do not impact equipment. (See Picture 2.)*
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 and conduit is restrained.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*All attached lines are flexible. (SEE PICTURE 1) ~ DSK 10/11/12*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  Y  N  U  
*There are nearby items, but they either are far enough away ( $\geq 2'$  for rigid items) or they do not have enough mass to cause damage to the asset.*

**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.*

MPS 10/3/12

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. T50F450 Equip. Class 8-Motor-Operated and Solenoid-Operated Valves  
Equipment Description PC RAD MON SYST INLET ISO VLV-(EL. 621'-3")

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

*NONE.*

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1: Mihel P. Dasso Date: 8/10/12

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2: Scott Dauer Date: 8/10/12

**Seismic Walkdown Pictures**

Equipment ID No. T50F450 Equipment Class: 8, Motor-Operated and Solenoid-Operated Valves

Equipment Description PC RAD MON SYST INLET ISO VLV

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Picture1

**Seismic Walkdown Pictures**

Equipment ID No. T50F450 Equipment Class: 8, Motor-Operated and Solenoid-Operated Valves

Equipment Description PC RAD MON SYST INLET ISO VLV

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Picture 2

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. X4103C001 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RHR HVAC EDG 11 Rm E Vent Fan

Location: Bldg. RHR Floor El. 617'-0" Room, Area EDG 11, Col. E-6

Manufacturer, Model, Etc. (optional but recommended) Buffalo Forge, 48B9 Type S

**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 (see Photo DSC01367)*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*No corrosion (see Photo DSC01365)*
  
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 pier (see Photo DSC01365)*
  
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 drawings M-N-2090-7,\*Rev G, Detail "E" and M-N-2090-4,\*Rev P (Anchor Bolt Schedule)*  
*\* REFERENCE DOCUMENTS HAVE NO APPLICABLE POSTINGS.*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U

DSA  
10/12/12

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. X4103C001 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RHR HVAC EDG 11 Rm E Vent Fan

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*No equipment or structures nearby to impact the fan in this 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  
*No ceiling tiles or masonry block walls. Lights are securely attached to walls.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*All of the attached lines have adequate flexibility; for example, see flex conduit in Photo DSC01367.*
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:  N  U

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. X4103C001 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RHR HVAC EDG 11 Rm E Vent Fan

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

*None.*

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1: *R. G. Madhok* Date: 8/14/12

*Seismic Engineer Walkdown PSE-53 Qualified*

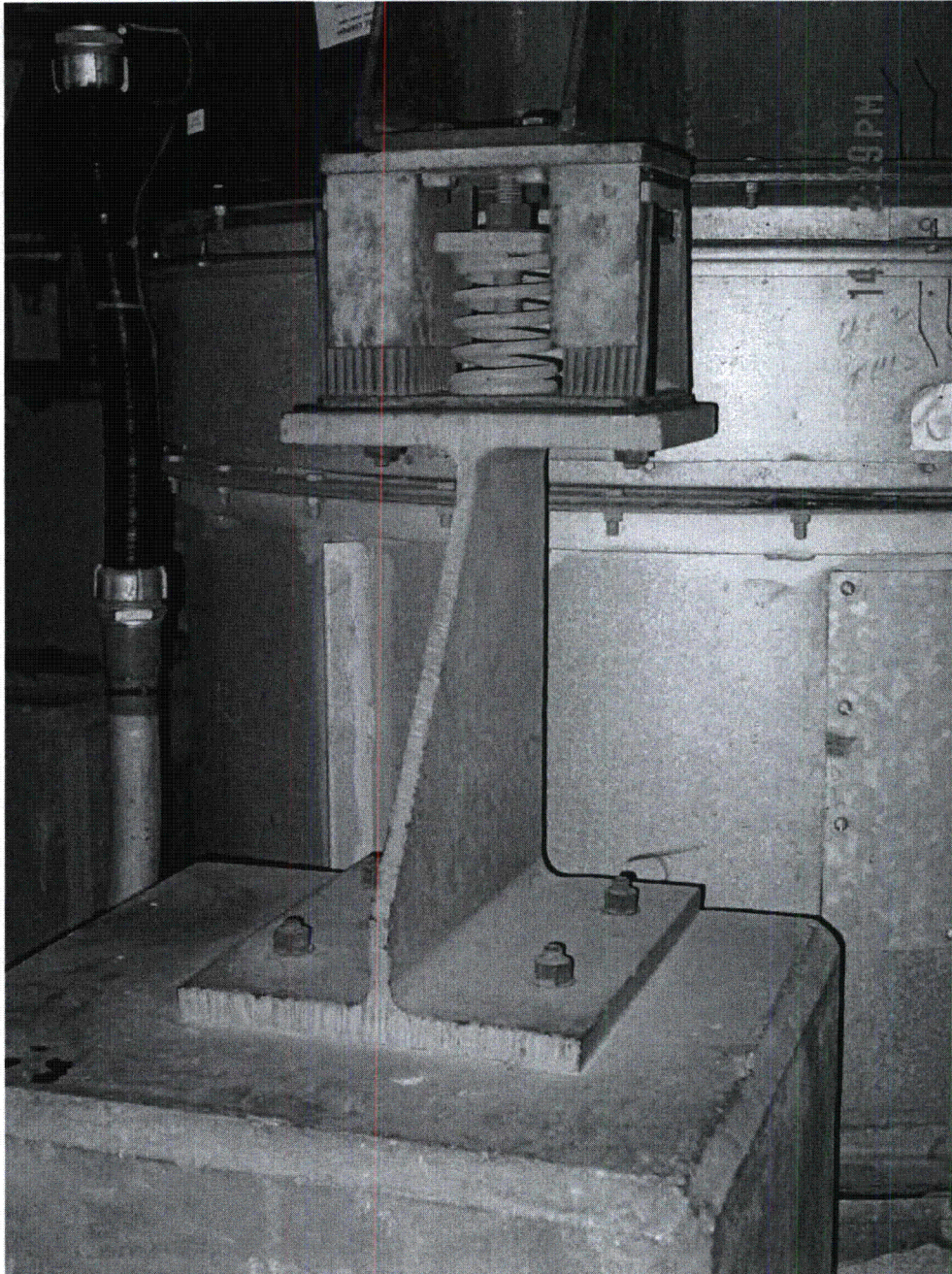
Evaluator #2: *[Signature]* Date: 08/14/12



**Seismic Walkdown Pictures**

Equipment ID No. X4103C001 Equipment Class: 9, Fans

Equipment Description RHR HVAC EDG11 Room E Vent Fan



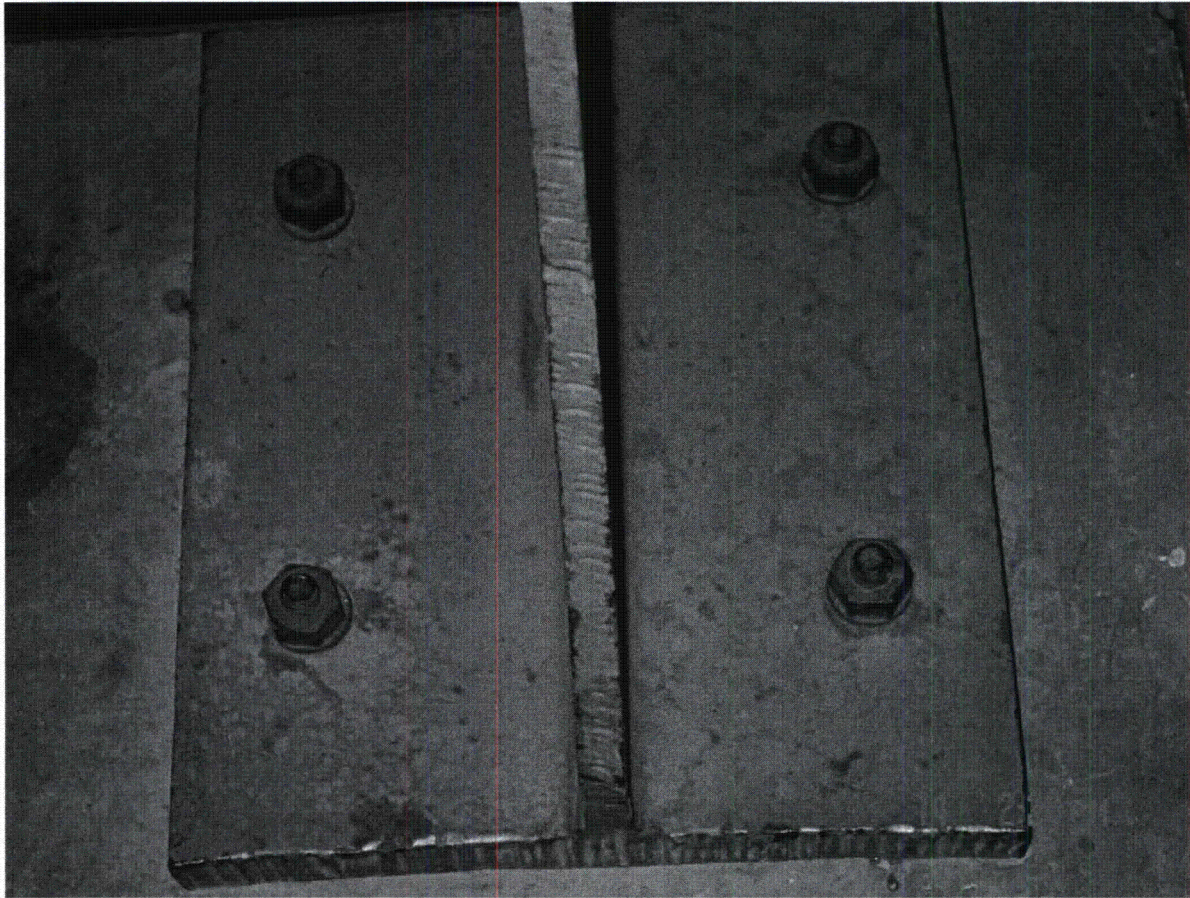
(DSC01367)

"Bolt attached to Concrete"

**Seismic Walkdown Pictures**

Equipment ID No. X4103C001 Equipment Class: 9, Fans

Equipment Description RHR HVAC EDG11 Room E Vent Fan



(DSC01365)

“Bolt Pattern”

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. X4103C007 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RHR HVAC EDG 14 RME Vent Fan

Location: Bldg. RHR Floor El. 617'-0" Room, Area EDG 14, Col E-7

Manufacturer, Model, Etc. (optional but recommended) Buffalo Forge, 48B9, Type S

**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 are in good condition.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*No corrosion (see Photo DSC00356).*
  
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 pier.*
  
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 is consistent with Dwg. M-N-2030,\*Rev P and M-N-2090-7\* Rev G.*  
*\* REFERENCE DOCUMENTS HAVE NO APPLICABLE POSTINGS.*
  
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Y  N  U

D5k  
10/12/12

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

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. X4103C007 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RHR HVAC EDG 14 RME Vent Fan

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**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*The fan is a relatively hard (robust) target, and there is nothing above the fan of significant weight that could fall onto and damage it.*
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, lights on the walls are secured.*
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  
*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. X4103C007 Equip. Class<sup>1</sup> 9, Fans

Equipment Description RHR HVAC EDG 14 RME Vent Fan

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

*None.*

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 : *R. Smalley* Date: 8/10/12

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2 : *[Signature]* Date: 08/10/12

**Seismic Walkdown Pictures**

Equipment ID No. X4103C007    Equipment Class: 9-Fans

Equipment Description RHR HVAC EDG 14 RME Vent Fan

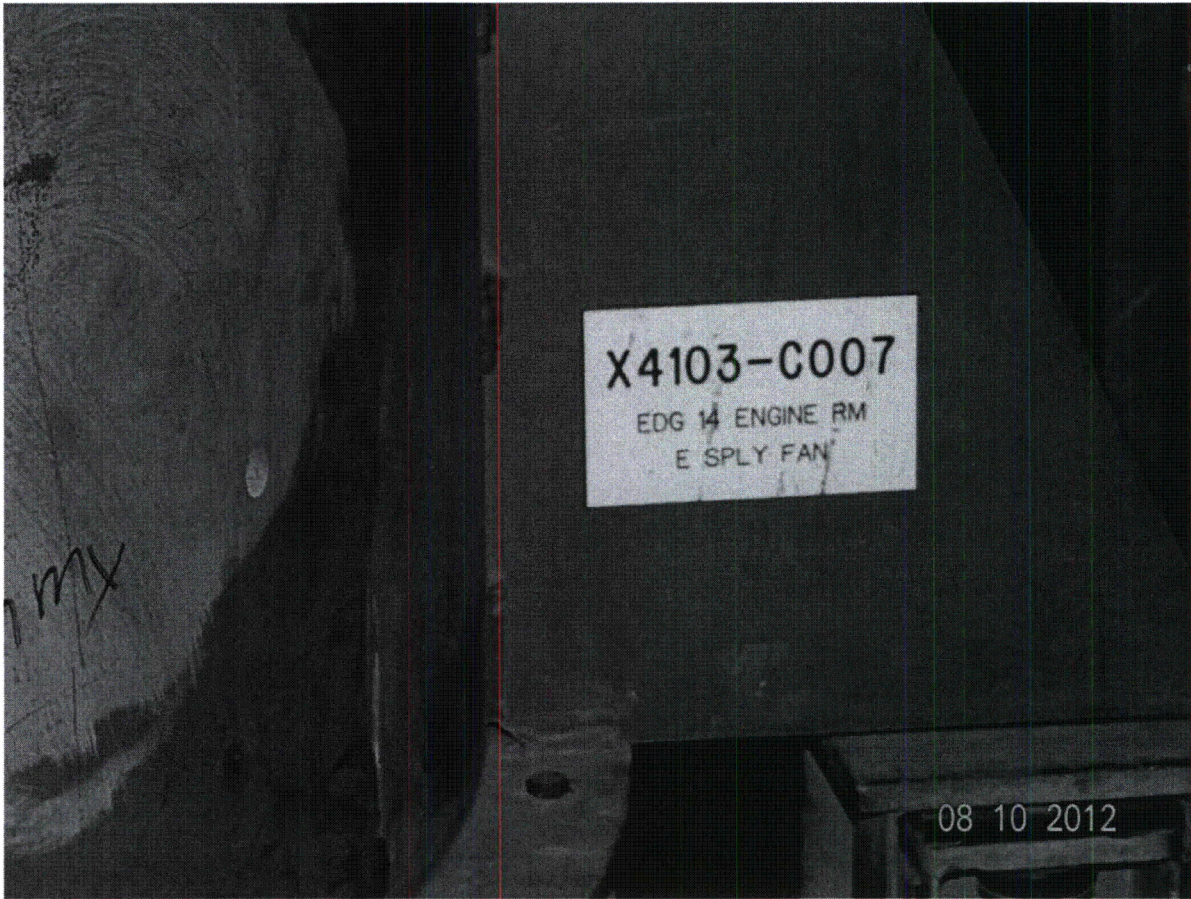


Photo DSC00361  
"Fan Tag"

**Seismic Walkdown Pictures**

Equipment ID No. X4103C007 Equipment Class: 9-Fans

Equipment Description RHR HVAC EDG 14 RME Vent Fan

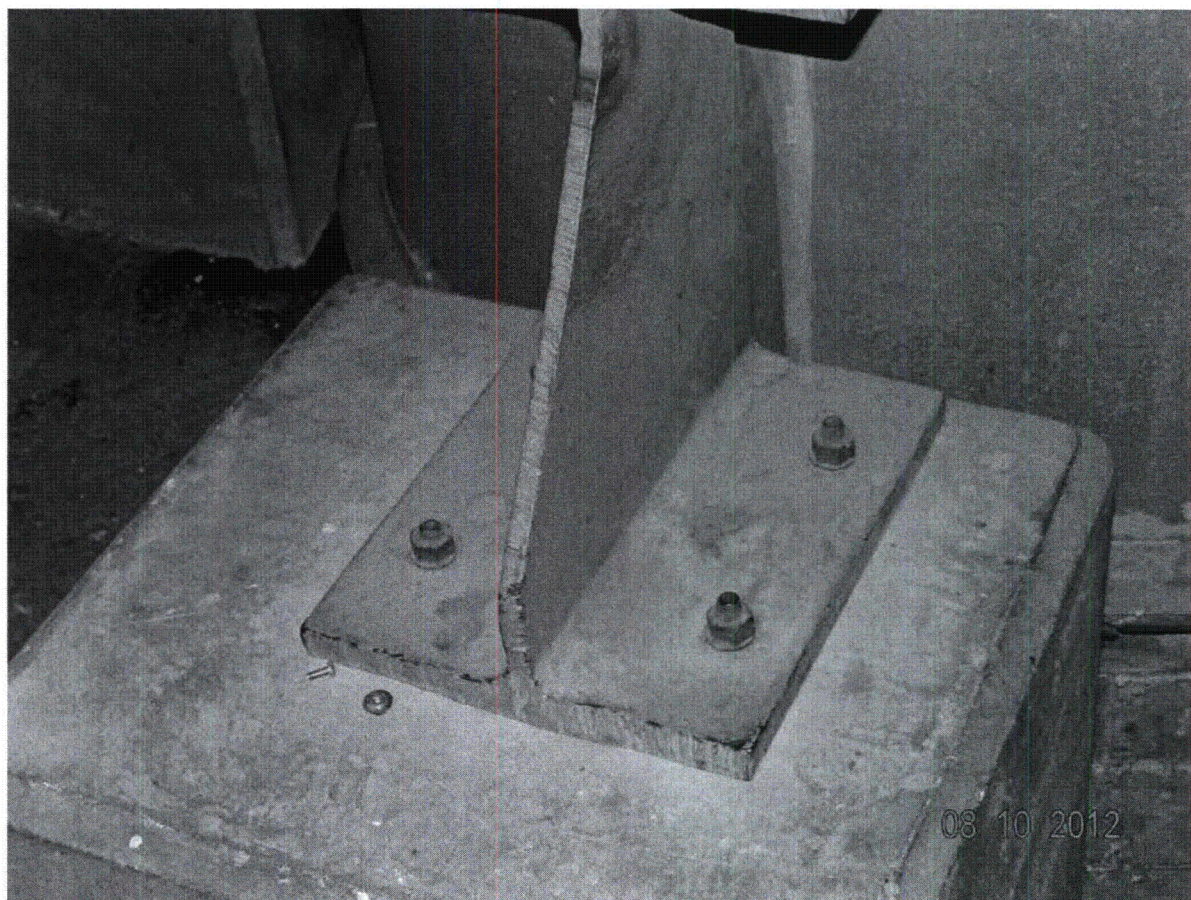


Photo DSC00356  
"Bolt Configuration"

**Seismic Walkdown Checklist (SWC)**

Equipment ID No. X41N056D Equip. Class<sup>1</sup> 19, Temperature Sensors

Equipment Description HVAC RHR EDG Swgr. Rm. Air Damper Temperature Sensors (EL. 622'-00")

Location: Bldg. RHR Floor El. 617'-0" Room, Area EDG-14 Col. E-8

Manufacturer, Model, Etc. (optional but recommended) Powers Regulator Co. 550-1669

**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 complete and in good condition.*
  
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  Y  N  U  N/A  
*No oxidation noted.*
  
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.*
  
5. Is the anchorage configuration consistent with plant documentation?  Y  N  U  N/A  
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)  
*The anchorage configuration is consistent with Dwg. I-N-2856-02 Rev F (No postings). See Photos DSC00340 & 00342.*
  
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. X41N056D Equip. Class<sup>1</sup> 19, Temperature Sensors

Equipment Description HVAC RHR EDG Swgr. Rm. Air Damper Temperature Sensors (EL. 622'-00")

**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures?  Y  N  U  N/A  
*Target is inside a metal enclosure and mounted on a wall. There are no observed impact sources nearby.*
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. Overhead equipment and nearby systems are adequately supported.*
9. Do attached lines have adequate flexibility to avoid damage?  Y  N  U  N/A  
*The existing conduit line attached to the sensor has 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  
*Temperature sensor bottom cover screen is missing. The upper screw is in place and supports the weight of the cover. See Photo DSC00346. CARD 12-27469 was initiated to resolve this matter.*

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. X41N056D Equip. Class<sup>1</sup> 19, Temperature Sensors

Equipment Description HVAC RHR EDG Swgr. Rm. Air Damper Temperature Sensors (EL. 622'-00")

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

*None.*

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*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #1 : *R. Swadlow* Date: 8-9-12

*Seismic Engineer Walkdown PSE-53 Qualified*

Evaluator #2 : *[Signature]* Date: 08/09/12

**Seismic Walkdown Pictures**

Equipment ID No. X41N056D Equipment Class: 19-Temperature Sensors

Equipment Description HVAC RHR EDG Swgr. Rm. Air Damper Temperature Sensors (EL. 622'-00")



Picture DSC00340  
"Bolt Configuration"

**Seismic Walkdown Pictures**

Equipment ID No. X41N056D Equipment Class: 19-Temperature Sensors

Equipment Description HVAC RHR EDG Swgr. Rm. Air Damper Temperature Sensors (EL. 622'-00")

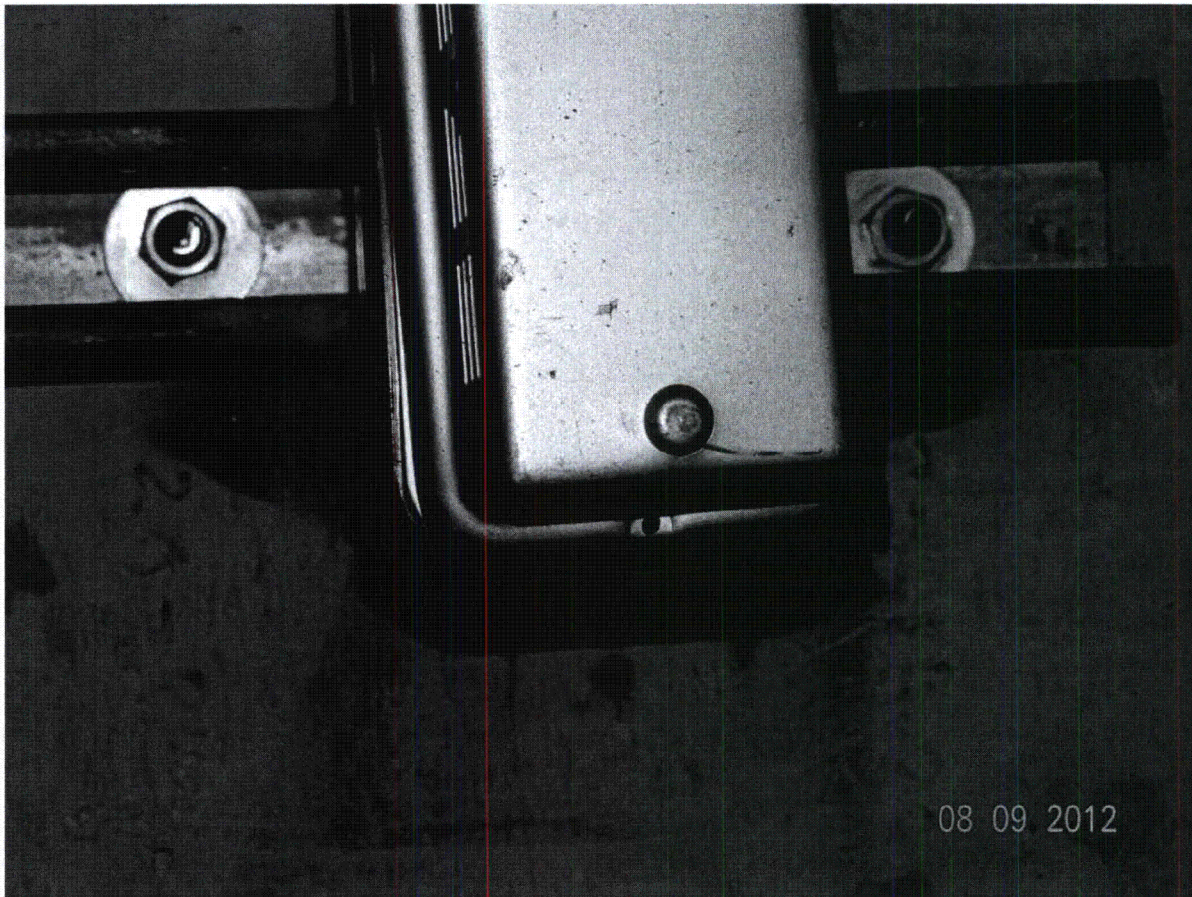


Picture DSC00342  
"Bolt Configuration"

**Seismic Walkdown Pictures**

Equipment ID No. X41N056D Equipment Class: 19-Temperature Sensors

Equipment Description HVAC RHR EDG Swgr. Rm. Air Damper Temperature Sensors (EL. 622'-00")



Picture DSC00346  
"Missing Cover Screw"

# ***Appendix D***

## **Area Walk-By Checklists (AWCs)**

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Table D-1 – Summary of Area Walk-By Checklists

Table D-1 – Summary of Area Walk-By Checklists

AWC Reference	PIS #	Equip. Class	Component Description	Bldg.	Floor	SWEL List (1,2)	50% Anchor Verif. (Y,N)	Status of AWC (Y,N,U)	CARDs Issued	Remarks
ABB-1	P5002D001	12	CA NORTH COMPRESSOR	AB	B	1	Y	Y	None	N/A
AB2-1	E41K805	0	HPCI PUMP FLOW RATE MODULATOR/ISOLATOR FLOW SIG CND	AB	2	1	Y	N	12-26630	GAI-Tronic above Panel H11P901 does not appear to be seismically supported.
	H11P612	20	CRTL & AUX RM PNL (MR ONLY) NSSS PROCESS INST CAB DIV2 INST RACK	AB	2	1	Y			
	H11P613	20	CRTL & AUX RM PNL (MR ONLY) NSSS PROCESS INST CAB DIV1 INST RACK	AB	2	1	Y			
	H11P628	20	CRTL & AUX RM PNL (MR ONLY) SRV DIV1 ADS RELAY CAB	AB	2	1	Y			
	H11P857	20	CRTL & AUX RM PNL (MR ONLY) MISC DC RELAY DIV1 INST RACK	AB	2	1	Y			
	H11P870	20	CRTL & AUX RM PNL (MR ONLY) MISC DC RELAY PANEL DIV2 INST RACK	AB	2	1	Y			
	H11P898A	20	CRTL & AUX RM PNL (MR ONLY) AUTO DIGITAL LOAD SEQ CAB DIV1 INST RACK	AB	2	1	Y			
	H11P898B	20	CRTL & AUX RM PNL (MR ONLY) AUTO DIGITAL LOAD SEQ CAB DIV2 INST RACK	AB	2	1	Y			
	H11P903	14	CRTL & AUX RM PNL (MR ONLY) 120 VAC DIST PANEL - DIV2 INST RACK	AB	2	1	Y			
	H11P915	20	CRTL & AUX RM PNL (MR ONLY) PC MON EQUIP & MISC RELAY DIV2 INST RACK	AB	2	1	Y			
	H11P923	20	CRTL & AUX RM PNL (MR ONLY) RCIC TURB CTRL PANEL INST RACK	AB	2	1	Y			
	R31K005	16	VITAL PWR DIST 120 VAC DIV2 2KVA INVERTER	AB	2	1	Y			
	R3200S061A	14	DC RR 130V DIST CABINET 2PA2-5	AB	2	1	Y			
R3200S061B	14	DC RR 130V DIST CABINET 2PA2-6	AB	2	1	Y				

Table D-1 – Summary of Area Walk-By Checklists

AWC Reference	PIS #	Equip. Class	Component Description	Bldg.	Floor	SWEL List (1,2)	50% Anchor Verif. (Y,N)	Status of AWC (Y,N,U)	CARDs Issued	Remarks
AB2-2	H21P100	18	LOC PNL/RACK (MR ONLY) REMOTE RX SHUTDOWN PANEL DIV1 INST RACK	AB	2	1	Y	N	12-27959	Seismic Clearance Between Shutdown Pnl. & HVAC Duct.
	H21P624	20	LOC PNL/RACK (MR ONLY) DSD 4160V BUS 64C LOCAL CTRL PANEL LOCAL PNL & RACKS	AB	2	1	Y			
	H21P628	20	LOC PNL/RACK (MR ONLY) DSD MCC 72B-2A LOCAL CTRL PANEL LOCAL PNL & RACKS	AB	2	1	Y			
	R1400S050	1	SWGR AE DIV1 480V MCC 72C-F ISOLATING CONTACTOR	AB	2	1	Y			
	R3200S062	14	DC SWGR ROOM 130V DIST CABINET 2PA2-14	AB	2	1	Y			
AB3-1	R3200S004	15	DC 260/130V DUAL BATT (2PB)	AB	3	1	Y	Y	None	N/A
AB3-2	R3200S016	1	DC 260V DC MCC (2PB-1)	AB	3	1	Y	Y	None	N/A
AB3-3	R3200S020C	16	DC DIV1 2A 1-2 130V BATT CHGR	AB	3	1	Y	Y	None	N/A
AB3-4	T4100B044	10	RBHVAC DIV2 BATT CHARGER RM FAN COIL UNITS	AB	3	1	Y	Y	None	N/A
	T4100C009	9	RBHVAC WEST BATT RM EAST ESSENTIAL EXH FAN	AB	3	1	Y			
AB4-1	H21P080	20	LOC PNL/RACK (MR ONLY) ECCS TRIP UNIT CAB DIV1 INST RACK	AB	4	1	Y	Y	None	N/A
AB4-2	H21P081	18	LOC PNL/RACK (MR ONLY) LOCAL PNL AND RACKS DIV2 ECCS TRIP UNIT INST RACK	AB	4	1	Y	Y	None	N/A
	H21P083	18	LOC PNL/RACK (MR ONLY) ECCS TRIP UNIT CAB DIV2 INST RACK	AB	4	1	Y			
	H21P085	18	LOC PNL/RACK (MR ONLY) RPS TRIP UNIT CAB A2 DIV2 INST RACK	AB	4	1	Y			
	H21P087	18	LOCAL PNL AND RACKS RPS TRIP UNIT CAB B2 DIV2 INST RACK	AB	4	1	Y			
AB4-3	T4100F041	7	CCHVAC NORMAL INTAKE AIR DIV1 ISO DAMPER (A.O.)	AB	4	1	Y	Y	None	N/A



Table D-1 – Summary of Area Walk-By Checklists

AWC Reference	PIS #	Equip. Class	Component Description	Bldg.	Floor	SWEL List (1,2)	50% Anchor Verif. (Y,N)	Status of AWC (Y,N,U)	CARDs Issued	Remarks
AB5-1	H21P296A	20	LOC PNL/RACK (MR ONLY) CCHVAC DIV1 INST RACK	AB	5	1	N	N	12-27556	Floor Drain does not match drawing M-2221.
	T4100B009	11	CCHVAC NORTH DIV1 AIR CONDITIONER CH	AB	5	1	Y			
	T41F101A	8	CCHVAC OUTSIDE AIR DAMPER F033A CTRL DIV1 SOV	AB	5	1	Y			
RBSB-1	E1150F004C	8	RHR DIV1 PUMP "C" SUPR POOL SUCT ISO MOV	RB	SB	1	N	Y	None	N/A
RBSB-2	E2101C001C	5	CS DIV1 "C" PUMP	RB	SB	1	N	Y	12-26957	Hose Reel Support Column Missing Anchor Nut.
	E5150F045	8	RCIC TURB STM INLET ISO MOV	RB	SB	1	N			
RBSB-3	E4101C001C	5	HPCI TURB DRIVEN OIL PUMP	RB	SB	1	N	Y	None	N/A
	E4150F001	8	HPCI TURB STM SPLY ISO MOV	RB	SB	1	N			
	E4150F004	8	HPCI BOOSTER PUMP SUCT FROM CST ISO MOV	RB	SB	1	N			
	H21P420	18	LOC PNL/RACK (MR ONLY) HPCI DIV2 TURB AND PILOT VLV INST RACK	RB	SB	1	Y			
RBSB-4	H21P614B	18	LOC PNL/RACK (MR ONLY) TORUS MON SYS INST RACK	RB	SB	1	Y	Y	None	N/A
RBB-1	E2150F031A	8	CS DIV1 MIN FLOW/RECIRC ISO MOV	RB	B	1	N	Y	12-26997	Demin. Water Valve, P1100F099D, With Slight Leak Valve (Housekeeping Issue, Not Seismic Issue).
RBB-2	P50P402B	18	CA DRYER RELAY PANEL INSTRUMENT RACK	RB	B	1	Y	Y	None	N/A
RB1-1	C1103D128	21	CRD NUMBER 34-27 HYD CTRL UNIT	RB	1	1	Y	N	12-26588	Broken Support Cable On Structural Member Above MCC 72E-5A.
	H21P010	18	LOC PNL/RACK (MR ONLY) JET PUMP RACK B DIV2 INST RACK	RB	1	1	Y			
RB1-2	C11F160B	8	CRD DIV2 SOV	RB	1	1	Y	Y	None	N/A

Table D-1 – Summary of Area Walk-By Checklists

AWC Reference	PIS #	Equip. Class	Component Description	Bldg.	Floor	SWEL List (1,2)	50% Anchor Verif. (Y,N)	Status of AWC (Y,N,U)	CARDs Issued	Remarks
RB1-3	C11F163A	8	CRD SOV	RB	1	1	Y	Y	None	N/A
	C11F182A	8	CRD SCRAM DISCH VOL VENT & DRAIN VLV F180 & F181 PILOT AIR 'A' SOV	RB	1	1	Y			
RB1-4	E1150F016A	8	RHR DIV1 DRYWELL SPRAY OTBD ISO MOV	RB	1	1	N	Y	None	N/A
	T49P400A	18	PC PNEU DIV1 SPLY INST RACK	RB	1	1	Y			
RB1-5	P4400F601B	8	RBCCW DIV2 RTRN ISO MOV	RB	1	1	N	N	12-26586	Core Spray Line in Contact with Handrail.
	P4400F603B	8	RBCCW DIV2 SPLY ISO MOV	RB	1	1	N			
RB1-6	G4100F016	0	FPCC SKIMMER SURGE TNK TO RESIDUAL HEAT REMOVAL ISO VLV	RB	1	2	N	Y	None	N/A
RB2-1	C4104F004A	8	SLC EXPLOSIVE (SQUIB) VLV	RB	2	1	N	Y	None	N/A
	H21P632	20	LOCAL PNL & RACKS DSD MCC 72F-4A LOCAL CTRL	RB	2	1	Y			
RB2-2	E1150F068A	8	RHR DIV1 HX "A" SERVICE WATER OUTLET ISO MOV	RB	2	1	N	Y	None	N/A
RB2-3	H21P448	18	LOC PNL/RACK (MR ONLY) EECW DIV2 INST RACK	RB	2	1	Y	Y	None	N/A
	P44K400B	0	EECW DIV2 ELECTRIC TO PNEUMATIC CONVERTER FOR TEMP CRTL VLV F400B	RB	2	1	N			
RB2-4	P4400B001B	21	EECW DIV2 PLATE FRAME HX	RB	2	1	Y	Y	None	N/A
RB2-5	P4400B001C	21	EECW DIV1 PLATE FRAME BACKUP HX.	RB	2	1	Y	Y	None	N/A
	P44F400A	7	EECW DIV1 HX B001A/B001C SW OUTLET TEMP CTRL AOV TEMP CRTL VLV	RB	2	1	N			
	P44N401A	19	EECW HX B001A / B001C RTRN T/C	RB	2	1	N			

Table D-1 – Summary of Area Walk-By Checklists

AWC Reference	PIS #	Equip. Class	Component Description	Bldg.	Floor	SWEL List (1,2)	50% Anchor Verif. (Y,N)	Status of AWC (Y,N,U)	CARDs Issued	Remarks
RB2-6	P4400C001A	5	EMERGENCY EQUIPMENT COOLING WATER DIV1 PUMP	RB	2	1	Y	Y	None	N/A
	P44F402A	7	EECW M/U TANK A001 DIV1 V8-2364 LVL CRTL AOV	RB	2	1	N			
	P44P403A	0	EECW DIV1 N2 GAS SPLY TO M/U TANK STORAGE RACK	RB	2	1	Y			
RB2-7	P44F402B	7	EECW M/U TANK A002 DIV2 V8-2362 LVL CRTL AOV	RB	2	1	N	Y	None	N/A
	T4100B035	10	RBHVAC EECW PUMP RM COOL UNIT	RB	2	1	Y			
RB2-8	T50F450	8	PCAM PC RAD MON SYS INLET ISO VLV V5-3083 SOV	RB	2	1	N	Y	None	N/A
RB3-1	T4600F407	7	SGTS FROM RB EXH SYS ISO AOV	RB	3	1	N	Y	None	N/A
RB4-1	C4103C001A	5	SLC NORTH REACTOR PUMP	RB	4	1	Y	N	12-26633 12-26855 12-27488	Loose Heat Trace Pull-Boxes on Pump C4103C001A. Leak in SLC Storage Tank Isolation Valve C4100F001 (Housekeeping Issue, Not Seismic Issue). Oil Leak in SLC Pump B C4103C001B (Housekeeping Issue, Not Seismic Issue).
RB5-1	G4100F045A	0	FPCC FUEL STRG POOL DIFFUSER "A" ISO VLV	RB	5	2	N	Y	None	N/A
RHR1-1	E1151C001C	6	RHR SW SOUTH PUMP ROOM SOUTH SERVICE WATER "C" PUMP	RHR	1	1	Y	Y	None	N/A
RHR1-2	P4500C002B	6	EMERGENCY EQUIPMENT SERVICE WATER NORTH PUMP	RHR	1	1	Y	Y	None	N/A
RHR1-3	R3000A011	21	EDG 11 W STARTING AIR RECEIVER	RHR	1	1	Y	Y	None	N/A
RHR1-4	R3000D002	12	EDG 12 STARTING AIR COMPRESSOR	RHR	1	1	Y	Y	None	N/A
RHR1-5	R3000F023D	7	EDG 14 ACS 3-WAY TEMP CTRL VLV	RHR	1	1	N	Y	None	N/A
RHR1-6	R3001B004	21	EDG 14 LUBE OIL HX	RHR	1	1	Y	Y	None	N/A

Table D-1 – Summary of Area Walk-By Checklists

AWC Reference	PIS #	Equip. Class	Component Description	Bldg.	Floor	SWEL List (1,2)	50% Anchor Verif. (Y,N)	Status of AWC (Y,N,U)	CARDs Issued	Remarks
RHR1-7	R3001C006	6	EDG 12 SERVICE WATER PUMP	RHR	1	1	Y	N	12-26977 12-27150	Braces on EDGSW Pump/Motor R3001C005 and C006 are not identified on vendor drawings.  Broken Valve Label for E1150F605A (Housekeeping Issue, Not Seismic Issue).
RHR1-8	R3001S001	17	EDG 11 4160V	RHR	1	1	Y	Y	None	N/A
RHR1-9	R30FA05B	8	EDG 13 THREE WAY AIR START CYL 1-6 SOLENOID VLV	RHR	1	1	N	N	12-26861	Light Fixture is against Diesel Service Water Supply Pipe.
RHR1-10	R30NA17A	0	EDG 11 MAGNETIC PICKUP SPEED XMTR	RHR	1	1	Y	Y	None	N/A
RHR1-11	R30P320	20	EDG ENGINE GAUGE PNL	RHR	1	1	Y	Y	None	N/A
RHR1-12	R30P343D	20	EDG 14 DIV2 SERIES BOOST EXCITER/V REG PNL	RHR	1	1	N	Y	None	N/A
RHR2-1	E1156C001C	9	RHR SW MDCT FAN	RHR	2	1	Y	Y	None	N/A
RHR2-2	R1400S039B	4	SWGR DIV2 480V ESS BUS 72ED V REG	RHR	2	1	Y	N	12-26985	Light Fixtures Above Switchgear In Contact With Cable Tray.
	R1600S019A	1	MCC/DIST CAB 480V MCC NO 72ED-2D (EDG 14)	RHR	2	1	Y			
	X41N056D	19	HVAC RHR EDG SWGR RM RTRN AIR DMPRS X4103C015 & C016 DIV2 RTD	RHR	2	1	Y			
RHR2-3	X4103C001	9	RHRHVAC EDG 11 RM E VENT FAN	RHR	2	1	Y	Y	None	N/A
RHR2-4	X4103C007	9	RHRHVAC EDG 14 RM E VENT FAN	RHR	2	1	Y	Y	None	N/A

Total AWC checklists: 50