Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 1 of 6

Seismic Walkdown Checklist (SWC)	Status: Y N U
Equipment ID No.: 2-2301-35-MO	
Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves	
Equipment Description: U-2 HPCI PMP DOWNSTREAM TORUS SUCT VLV	
Project: Quad Cities 2 SWEL	
Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL	
Manufacturer/Model:	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of an item of ed SWEL. The space below each of the following questions may be used to record the results of findings. Additional space is provided at the end of this checklist for documenting other comments.	of judgments and
<u>Anchorage</u>	
<ol> <li>Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	No
2. Is the anchorage free of bent, broken, missing or loose hardware?	Not Applicable
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Not Applicable
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Not Applicable
<ol> <li>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.)</li> </ol>	Not Applicable
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Yes
$\cdot$	

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 6

Equipment ID No.: 2-2301-35-MO  Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves  Equipment Description: U-2 HPCI PMP DOWNSTREAM TORUS SUCT VLV  Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures? Yes  Pipe insulation in contact with valve body. Judged to be acceptable.  8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and
Equipment Description: U-2 HPCI PMP DOWNSTREAM TORUS SUCT VLV  Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?  Pipe insulation in contact with valve body. Judged to be acceptable.
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?  Pipe insulation in contact with valve body. Judged to be acceptable.  Yes
7. Are soft targets free from impact by nearby equipment or structures?  Pipe insulation in contact with valve body. Judged to be acceptable.  Yes
Pipe insulation in contact with valve body. Judged to be acceptable.
Are overhead equipment, distribution systems, ceiling tiles and lighting, and     Yes
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and
masonry block walls not likely to collapse onto the equipment?  Overhead light fixture with open S-hook. In-place pipe and support prevent
adverse interaction. Judged to be acceptable.
9. Do attached lines have adequate flexibility to avoid damage? Yes
10. Based on the above seismic interaction evaluations, is equipment free of
potentially adverse seismic interaction effects?
ę.
Other Adverse Conditions
11. Have you looked for and found no adverse seismic conditions that could  Yes adversely affect the safety functions of the equipment?
Comments
Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012
Evaluated by: Date: 10/4/2012
Michael Q Wodnate
Michael Wodarcyk 10/4/2012
- mondo Producja

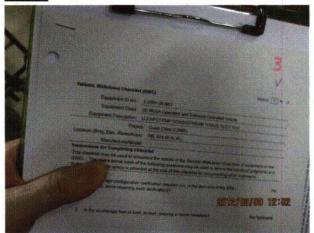
### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-35-MO

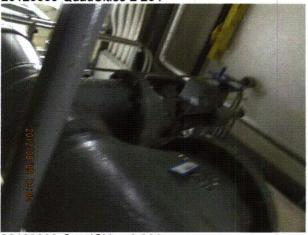
Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI PMP DOWNSTREAM TORUS SUCT VLV

### **Photos**



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-35-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI PMP DOWNSTREAM TORUS SUCT VLV



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Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-35-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI PMP DOWNSTREAM TORUS SUCT VLV



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-35-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI PMP DOWNSTREAM TORUS SUCT VLV



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Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 1 of 6

Seismic Walkdown Checklist (SWC)	Status: Y N U
Equipment ID No.: 2-2301-3-MO	
Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves	
Equipment Description: U-2 HPCI TURB INLET VLV	
Project: Quad Cities 2 SWEL	·
Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL	
Manufacturer/Model:	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of an item of e SWEL. The space below each of the following questions may be used to record the results findings. Additional space is provided at the end of this checklist for documenting other com	of judgments and
Anchorage  1. Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?	, No
2. Is the anchorage free of bent, broken, missing or loose hardware?	Not Applicable
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Not Applicable
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Not Applicable
<ol> <li>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.)</li> </ol>	Not Applicable
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Yes
·	
Interaction Effects	V.
7. Are soft targets free from impact by nearby equipment or structures?	Yes

Seismic Walkdown Checklist (SWC)		Status: [	Y N U
Equipment ID No.: 2-2301-3-MO			
Equipment Class: (8) Motor-Operated and Solenoid-Operated Val	/es		
Equipment Description: U-2 HPCI TURB INLET VLV			
8. Are overhead equipment, distribution systems, ceiling tiles and lighting,	and		Yes
masonry block walls not likely to collapse onto the equipment?  Valve is located above light fixtures.		ga e	. 55
9. Do attached lines have adequate flexibility to avoid damage?			Yes
10. Based on the above seismic interaction evaluations, is equipment free o potentially adverse seismic interaction effects?	F		Yes
Other Adverse Conditions  11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?			Yes
Comments Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012		,	
Evaluated by: James Griffith  Miskel J. Wodney to	Date:	10/4/2012	
Michael Wodarcyk		10/4/2012	

Sheet 3 of 6

Status: Y N U

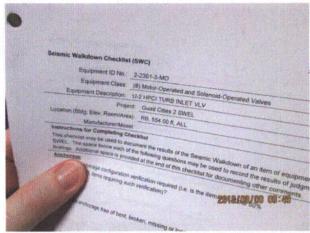
### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-3-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI TURB INLET VLV

### **Photos**



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-3-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI TURB INLET VLV



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Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-3-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI TURB INLET VLV



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Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-3-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI TURB INLET VLV



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Seismic Walkdown Checklist (SWC)	Status: Y N U
Equipment ID No.: 2-2301-49-MO	
Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves	
Equipment Description: U-2 HPCI CLG WTR PMP TEST VLV	
Project: Quad Cities 2 SWEL	
Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL	
Manufacturer/Model:	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of an item of SWEL. The space below each of the following questions may be used to record the results findings. Additional space is provided at the end of this checklist for documenting other course.	s of judgments and
Anchorage	
<ol> <li>Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	No
,	
2. Is the anchorage free of bent, broken, missing or loose hardware?	Not Applicable
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Not Applicable
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Not Applicable
· ·	
	·
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	Not Applicable
configuration verification is required.)	
6. Based on the above anchorage evaluations, is the anchorage free of	Yes
potentially adverse seismic conditions?	
Interaction Effects	
7 Are soft targets free from impact by nearby equipment or structures?	Vac

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 6

Status: Y N Seismic Walkdown Checklist (SWC)	U
Equipment ID No.: 2-2301-49-MO	
Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves	
Equipment Description: U-2 HPCI CLG WTR PMP TEST VLV	
O A control of the state of the	<b>/</b>
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and y masonry block walls not likely to collapse onto the equipment? Overhead light fixtures judged to be acceptable.	'es
9. Do attached lines have adequate flexibility to avoid damage?	es/
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	es/
Other Adverse Conditions  11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?	es′
Comments Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012	
Evaluated by: James Griffith Date: 10/16/2012	
Michael Wodarcyk 10/16/2012	

Sheet 3 of 6

Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-49-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI CLG WTR PMP TEST VLV

### **Photos**



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Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-49-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI CLG WTR PMP TEST VLV



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-49-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI CLG WTR PMP TEST VLV



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Status: Y N U

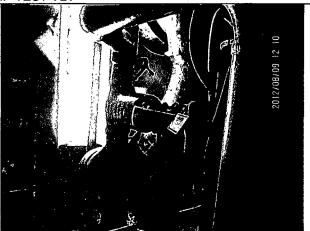
### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-49-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI CLG WTR PMP TEST VLV





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Correspondence No.: RS-12-169

Sheet 1 of 8

Status: Y N U Seismic Walkdown Checklist (SWC) Equipment ID No.: 2-2301-6-MO Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves Equipment Description: U-2 HPCI PMP CCST SUCT VLV Project: Quad Cities 2 SWEL Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL Manufacturer/Model: **Instructions for Completing Checklist** This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. **Anchorage** Is anchorage configuration verification required (i.e., is the item one of the 50% 1. No of SWEL items requiring such verification)? 2. Is the anchorage free of bent, broken, missing or loose hardware? Not Applicable 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable Is the anchorage configuration consistent with plant documentation? (Note: Not Applicable This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Based on the above anchorage evaluations, is the anchorage free of Yes potentially adverse seismic conditions?

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 8

Calanda Walledayun Chaaldist (CWC)	Status: Y N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No.: 2-2301-6-MO	·
Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves	
Equipment Description: U-2 HPCI PMP CCST SUCT VLV	
Interaction Effects	,
7. Are soft targets free from impact by nearby equipment or structures?	Yes
Adjacent scaffold is adequately restrained. Clearance to valve is judged to be acceptable.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead light fixture judged to be acceptable.	Yes
9. Do attached lines have adequate flexibility to avoid damage?	Yes
Flexible conduits near rigidly-supported pipe judged to be acceptable.	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Yes
Other Adverse Conditions  11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?	Yes
Comments Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012	
Michael J. Washingt	0/4/2012
Michael Wodarcyk 10	UITIEU IE

Correspondence No.: RS-12-169 Sheet 3 of 8

Status: Y N U

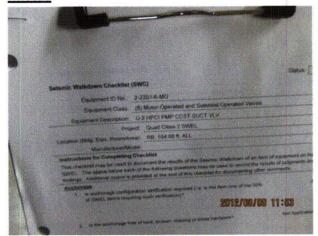
### Seismic Walkdown Checklist (SWC)

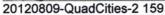
Equipment ID No.: 2-2301-6-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves

Equipment Description: U-2 HPCI PMP CCST SUCT VLV

### **Photos**







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Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-6-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves



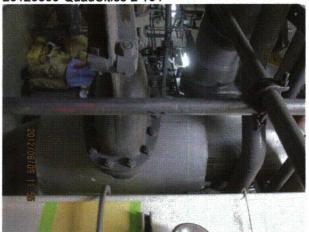
20120809-QuadCities-2 163



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-6-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves



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Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-6-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves



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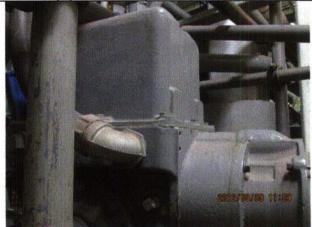


20120809-QuadCities-2 174

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-6-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves



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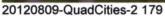
20120809-QuadCities-2 178

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2301-6-MO

Equipment Class: (8) Motor-Operated and Solenoid-Operated Valves







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Correspondence No.: RS-12-169 Sheet 1 of 10

Status: Y N U Seismic Walkdown Checklist (SWC) Equipment ID No.: 2-2302 Equipment Class: (5) Horizontal Pumps Equipment Description: HPCI/ HPCI Pump Project: Quad Cities 2 SWEL Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL Manufacturer/Model: **Instructions for Completing Checklist** This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. Anchorage Is anchorage configuration verification required (i.e., is the item one of the 50% 1. Yes of SWEL items requiring such verification)? Yes 2. Is the anchorage free of bent, broken, missing or loose hardware? Is the anchorage free of corrosion that is more than mild surface oxidation? Yes Minor skid corrosion judged to be acceptable. Is the anchorage free of visible cracks in the concrete near the anchors? Yes 5. Is the anchorage configuration consistent with plant documentation? (Note: Yes This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Anchorage is shown on drawings M-347, Rev. M and M-358, Rev. J. Yes Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 10

	Status: Y N U
Seismic Walkdown Checklist (SWC)	• •
Equipment ID No.: 2-2302	
Equipment Class: (5) Horizontal Pumps	
Equipment Description: HPCI/ HPCI Pump	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Yes
Contact between flexible pipe and tube for booster pump judged to be acceptable.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	Yes
Overhead light fixtures with open S-hooks. Adjacent hard targets prevent adverse interaction; judged to be acceptable.	
9. Do attached lines have adequate flexibility to avoid damage?	Yes
Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Yes
Other Adverse Conditions  11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?	Yes
Comments Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012	
Evaluated by: James Griffith Date:	10/16/2012
Michael Wodarcyk	10/16/2012

Sheet 3 of 10

Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps

Equipment Description: HPCI/ HPCI Pump

### **Photos**



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20120809-QuadCities-2 003



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Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps



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20120809-QuadCities-2 008



20120809-QuadCities-2 007



20120809-QuadCities-2 009

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps



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20120809-QuadCities-2 012



20120809-QuadCities-2 011



20120809-QuadCities-2 013

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps



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20120809-QuadCities-2 016



20120809-QuadCities-2 015



20120809-QuadCities-2 017

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps



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20120809-QuadCities-2 020



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps



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Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps



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20120809-QuadCities-2 027



20120809-QuadCities-2 030

## Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2302

Equipment Class: (5) Horizontal Pumps



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20120809-QuadCities-2 032

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 1 of 8

Seismic Walkdown Checklist (SWC)	Status: Y N U
Equipment ID No.: 2-2304	
Equipment Class: (5) Horizontal Pumps	
Equipment Description: PUMP U-2 HPCI CONDENSATE	
Project: Quad Cities 2 SWEL	
Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL	
Manufacturer/Model:	,
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of an item of eq SWEL. The space below each of the following questions may be used to record the results of findings. Additional space is provided at the end of this checklist for documenting other comme	f judgments and
Anchorage	
<ol> <li>Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	No
2. Is the anchorage free of bent, broken, missing or loose hardware?	Yes
Is the anchorage free of corrosion that is more than mild surface oxidation?  Minor surface corrosion judged to be acceptable.	Yes
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Yes
Minor shrinkage cracks in pump support pad judged to be acceptable.	
<ol> <li>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.)</li> </ol>	Not Applicable
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Yes

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 8

Seismic Walkdown Checklist (SWC)	Status: Y N U
	·
Equipment ID No.: 2-2304	
Equipment Class: (5) Horizontal Pumps	
Equipment Description: PUMP U-2 HPCI CONDENSATE	
7. Are soft targets free from impact by nearby equipment or structures?	Yes
Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?      Adjacent scaffold adequately restrained, judged to be acceptable.	Yes
9. Do attached lines have adequate flexibility to avoid damage?	Yes
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Yes
Other Adverse Conditions	
Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?	Yes
Comments	
Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012	
Evaluated by:    James Griffith   Date:   Michael Wodarcyk   Date:	10/4/2012

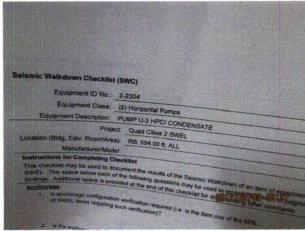
# Seismic Walkdown Checklist (SWC)

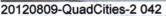
Equipment ID No.: 2-2304

Equipment Class: (5) Horizontal Pumps

Equipment Description: PUMP U-2 HPCI CONDENSATE

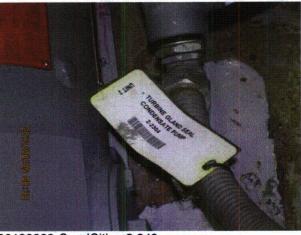
#### **Photos**







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Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2304

Equipment Class: (5) Horizontal Pumps





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# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2304

Equipment Class: (5) Horizontal Pumps



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2304

Equipment Class: (5) Horizontal Pumps



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Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2304

Equipment Class: (5) Horizontal Pumps



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# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2304

Equipment Class: (5) Horizontal Pumps



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20120809-QuadCities-2 063



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Status: Y N U Seismic Walkdown Checklist (SWC) Equipment ID No.: 2-2308 Equipment Class: (5) Horizontal Pumps Equipment Description: AUXILIARY OIL PUMP (HPCI TURBINE) Project: Quad Cities 2 SWEL Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL Manufacturer/Model: Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. Anchorage Is anchorage configuration verification required (i.e., is the item one of the 50% No of SWEL items requiring such verification)? Pump motor is visible. Pump is submerged in oil in a confined space. Is the anchorage free of bent, broken, missing or loose hardware? Yes 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable Pump motor mounted to turbine skid checkered plate. Is the anchorage configuration consistent with plant documentation? (Note: Not Applicable This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Based on the above anchorage evaluations, is the anchorage free of Yes potentially adverse seismic conditions? Interaction Effects Are soft targets free from impact by nearby equipment or structures? Yes

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 6

Seismic Walkdown Checklist	(SWC)		Status: Y	ט א 🖸
Equipment ID No.:				
	(5) Horizontal Pumps			
, ,	AUXILIARY OIL PUMP (HPCI TURBINE)			
	·			
masonry block walls no	nt, distribution systems, ceiling tiles and lighting, ot likely to collapse onto the equipment? s judged to be acceptable.	and		Yes
9. Do attached lines have	adequate flexibility to avoid damage?		t	Yes
	eismic interaction evaluations, is equipment free of smic interaction effects?	f		Yes
Other Adverse Conditions				
	nd found no adverse seismic conditions that could fety functions of the equipment?			Yes
Comments Seismic Walkdown Team: J. G	riffith & M. Wodarcyk - 8/9/2012	-		
Evaluated by: Sms D. Affi	James Griffith	Date:	10/16/2012	
Manne	Michael Wodarcyk	-	10/16/2012	

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2308

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY OIL PUMP (HPCI TURBINE)

#### **Photos**



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# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2308

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY OIL PUMP (HPCI TURBINE)



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Status: Y N U

#### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2308

Equipment Class: (5) Horizontal Pumps

Equipment Description: AUXILIARY OIL PUMP (HPCI TURBINE)



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#### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2308

Equipment Class: \_(5) Horizontal Pumps

Equipment Description: AUXILIARY OIL PUMP (HPCI TURBINE)



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Correspondence No.: RS-12-169

Sheet 1 of 6

Status: Y N U Seismic Walkdown Checklist (SWC) Equipment ID No.: 2-2310 Equipment Class: (21) Tanks and Heat Exchangers Equipment Description: COOLER U-2 HPCI OIL Project: Quad Cities 2 SWEL Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL Manufacturer/Model: **Instructions for Completing Checklist** This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. **Anchorage** 1. Is anchorage configuration verification required (i.e., is the item one of the 50% No of SWEL items requiring such verification)? Yes Is the anchorage free of bent, broken, missing or loose hardware? 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Yes Is the anchorage free of visible cracks in the concrete near the anchors? Not Applicable Oil cooler sits on 2 brackets that are welded to turbine skid. Oil cooler is attached to each bracket via a U-shaped hold-down with 4 bolts (2 at each end). Is the anchorage configuration consistent with plant documentation? (Note: Not Applicable This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)-Based on the above anchorage evaluations, is the anchorage free of Yes potentially adverse seismic conditions?

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 6

Seismic Walkdown Checklist (SWC)	Status: Y N U
Equipment ID No.: 2-2310	
Equipment Class: (21) Tanks and Heat Exchangers	
Equipment Description: COOLER U-2 HPCI OIL	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Yes
Targets protected by grating above.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?  Grating prevents impact from overhead items.	Yes
9. Do attached lines have adequate flexibility to avoid damage?	Yes
Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Yes
Other Adverse Conditions	
11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment? Clearance from cooler piping to grating judged to be acceptable.	Yes
Comments Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012	
Evaluated by: James Griffith Date: 1	10/4/2012
Michael Wodarcyk	10/4/2012

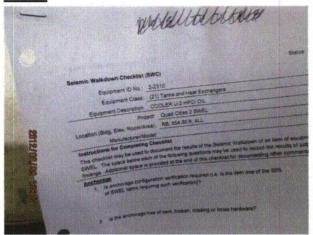
### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2310

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: COOLER U-2 HPCI OIL

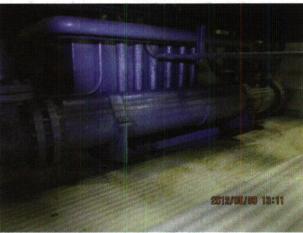
# **Photos**



20120809-QuadCities-2 280



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### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2310

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: COOLER U-2 HPCI OIL



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#### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2310

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: COOLER U-2 HPCI OIL



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Status: Y N U

### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2310

Equipment Class: (21) Tanks and Heat Exchangers

Equipment Description: COOLER U-2 HPCI OIL



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Status: Y N Seismic Walkdown Checklist (SWC)	N U
Equipment ID No.: 2-2399-15-PCV	
Equipment Class: (7) Fluid-Operated Valves	
Equipment Description: U-2 HPCI GL SEAL CONDENSER COND PMP DSCH PCV	
Project: Quad Cities 2 SWEL	
Location (Bldg, Elev, Room/Area): RB, 554.00 ft, ALL	
Manufacturer/Model:	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.	ie nd
Anchorage	
<ol> <li>Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	No
Is the anchorage free of bent, broken, missing or loose hardware?  Not Applicable	able
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Not Applicable	able ·
Is the anchorage free of visible cracks in the concrete near the anchors?  Not Applicable	able
<ol> <li>Is the anchorage configuration consistent with plant documentation? (Note:         Not Applicable This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)     </li> </ol>	cable
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  Yes	Yes

Correspondence No.: RS-12-169

Sheet 2 of 5

Status: Y N U Seismic Walkdown Checklist (SWC) Equipment ID No.: 2-2399-15-PCV Equipment Class: (7) Fluid-Operated Valves Equipment Description: U-2 HPCI GL SEAL CONDENSER COND PMP DSCH PCV **Interaction Effects** 7. Are soft targets free from impact by nearby equipment or structures? Yes 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and Yes masonry block walls not likely to collapse onto the equipment? Adjacent scaffold adequately restrained at top and is therefore judged to be acceptable. Yes 9. Do attached lines have adequate flexibility to avoid damage? 10. Based on the above seismic interaction evaluations, is equipment free of Yes potentially adverse seismic interaction effects? **Other Adverse Conditions** Have you looked for and found no adverse seismic conditions that could Yes adversely affect the safety functions of the equipment? Conduit in contact with pipe from valve. Due to inherent flexibility of both items, contact is judged to be acceptable. **Comments** Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/9/2012 James Griffith Date: 10/4/2012 Evaluated by: 10/4/2012 Michael Wodarcyk

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Status: Y N U

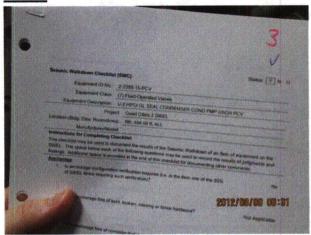
### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2399-15-PCV

Equipment Class: \_(7) Fluid-Operated Valves

Equipment Description: U-2 HPCI GL SEAL CONDENSER COND PMP DSCH PCV

#### **Photos**



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20120809-QuadCities-2 034



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Status: Y N U

#### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2399-15-PCV

Equipment Class: (7) Fluid-Operated Valves

Equipment Description: U-2 HPCI GL SEAL CONDENSER COND PMP DSCH PCV



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20120809-QuadCities-2 040

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 5 of 5

Status: Y N U

#### Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2-2399-15-PCV

Equipment Class: \_(7) Fluid-Operated Valves

Equipment Description: U-2 HPCI GL SEAL CONDENSER COND PMP DSCH PCV



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Seismic Walkdown Checklist (SWC)	ıs: YN U
Equipment ID No.: 2252-86	
Equipment Class: (18) Instruments on Racks	
Equipment Description: RACK	
Project: Quad Cities 2 SWEL	
Location (Bldg, Elev, Room/Area): TB, 639.00 ft, ALL	
Manufacturer/Model:	
Instructions for Completing Checklist  This checklist may be used to document the results of the Seismic Walkdown of an item of equipm SWEL. The space below each of the following questions may be used to record the results of judg findings. Additional space is provided at the end of this checklist for documenting other comments	ments and
<u>Anchorage</u>	
<ol> <li>Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Yes
2. Is the anchorage free of bent, broken, missing or loose hardware?	Yes
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Yes
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Yes
Minor shrinkage cracks in floor judged to be acceptable.	
<ol> <li>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.)</li> </ol>	Yes
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Yes
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Yes

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 6

Status: Y Seismic Walkdown Checklist (SWC)	ט אן
Equipment ID No.: 2252-86	
Equipment Class: (18) Instruments on Racks	
Equipment Description: RACK	
	•
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?  Overhead light fixtures judged to be acceptable. Masonry wall in vicinity restrained at top and judged to be acceptable.	Yes
Do attached lines have adequate flexibility to avoid damage?	Yes
9. Do attached lines have adequate hexibility to avoid damage:	163
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Yes
	,
Other Adverse Conditions	*
Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?	Yes
Comments	
SEWS Anchorage Notes:	
Relay box weighing less than 100 lbs. mounted on P5500 (Unistrut) frame anchored by eight 3/4" concret expansion anchors.	e
****	
Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/7/2012	
Evaluated by: Date: 10/16/2012	
Michael J. Woodingto	
Michael Wodarcyk 10/16/2012	

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Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-86

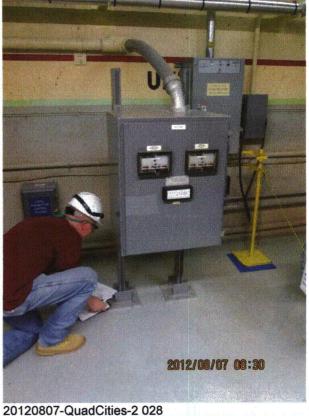
Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

#### **Photos**



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Sheet 4 of 6

Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-86

Equipment Class: (18) Instruments on Racks



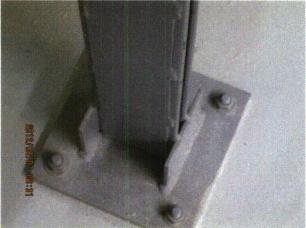
20120807-QuadCities-2 031



20120807-QuadCities-2 033



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Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-86

Equipment Class: (18) Instruments on Racks



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20120807-QuadCities-2 037



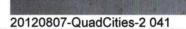
20120807-QuadCities-2 039

## Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-86

Equipment Class: (18) Instruments on Racks





Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 1 of 7

Seismic Walkdown Checklist (SWC)	Status: Y N U
Equipment ID No.: 2252-87	
Equipment Class: (18) Instruments on Racks	
Equipment Description: RACK	
Project: Quad Cities 2 SWEL	
Location (Bldg, Elev, Room/Area): TB, 639.00 ft, ALL	
Manufacturer/Model:	· · · · · · · · · · · · · · · · · · ·
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of an item of SWEL. The space below each of the following questions may be used to record the results findings. Additional space is provided at the end of this checklist for documenting other contains the second section.	s of judgments and
<u>Anchorage</u>	
<ol> <li>Is anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Yes
2. Is the anchorage free of bent, broken, missing or loose hardware?	Yes
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Yes
	•
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Yes
4. 13 the anotherage nee of visible dracks in the controlle near the anothers.	100
5. Is the anchorage configuration consistent with plant documentation? (Note:	Yes
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	Yes
potentially adverse seismic conditions?	

Quad Cities Generating Station Unit 2 12Q0108.40-R-002, Rev. 3 Correspondence No.: RS-12-169 Sheet 2 of 7

	Status: Y N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No.: 2252-87	
Equipment Class: (18) Instruments on Racks	
Equipment Description: RACK	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Yes
1-inch gap to wall judged to be acceptable.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and	Yes
masonry block walls not likely to collapse onto the equipment?  Overhead light fixtures judged to be acceptable. Masonry wall in vicinity	· .
restrained at top and judged to be acceptable.	
Do attached lines have adequate flexibility to avoid damage?	Yes
5. Do attached lines have adequate hexibility to avoid damage:	163
10. Based on the above seismic interaction evaluations, is equipment free of	Yes
potentially adverse seismic interaction effects?	
Other Adverse Conditions	V
11. Have you looked for and found no adverse seismic conditions that could adversely affect the safety functions of the equipment?	Yes
	·
Comments	
SEWS Anchorage Notes:	
Relay box weighing less than 100 lbs. mounted on P5500 (Unistrut) frame anchored by eigenpansion anchors.	ght 3/4" concrete
****	
Seismic Walkdown Team: J. Griffith & M. Wodarcyk - 8/7/2012	
Evaluated by: James Griffith Date:	10/4/2012
Michael J. Wodingto	
Michael Wodarcyk	10/4/2012

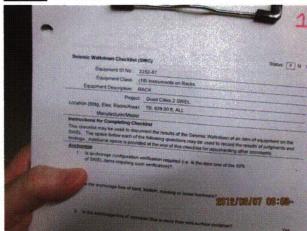
# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-87

Equipment Class: (18) Instruments on Racks

Equipment Description: RACK

#### **Photos**



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Status: Y N U

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-87

Equipment Class: \_(18) Instruments on Racks



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20120807-QuadCities-2 073

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-87

Equipment Class: (18) Instruments on Racks



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20120807-QuadCities-2 076



20120807-QuadCities-2 075



20120807-QuadCities-2 077

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-87

Equipment Class: (18) Instruments on Racks



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20120807-QuadCities-2 080



20120807-QuadCities-2 079



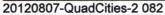
20120807-QuadCities-2 081

# Seismic Walkdown Checklist (SWC)

Equipment ID No.: 2252-87

Equipment Class: (18) Instruments on Racks







20120807-QuadCities-2 083