Engi	ineering Report No. GGNS-CS-12-00002 Rev. 0		
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	Status: YX N U		
Seismic Walkdown Checklist (SWC) <u>SWEL1- 075</u>			
Equipment ID No. <u>M71N026A</u> Equip. Class <u>19 - Temperature ser</u>	isors		
Equipment Description <u>Temperature Element (Suppression Pool)</u>			
Location: Bldg. <u>CTMT</u> Floor El. <u>135</u> Room, Area <u>1A311, CTM</u>	Τ		
Manufacturer, Model, Etc. (optional but recommended) <u>Thermo Electric. 2762</u>	20		
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? Connected to steel plate			
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>Welds are in good condition. There is very mild surface oxidation judged to have negligible affects on structural ability</li> </ol>	Y⊠ N□ U□ N/A□		
4. Is the anchorage free of visible cracks in the concrete near the anchors? Connection plate is welded to a base plate.			
<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>			
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?			

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 075</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>M71N026A</u> Equip. Class <u>19 - Temperature se</u>	nsors
Equipment Description Temperature Element (Suppression Pool)	
Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are protected by steel plating.	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? Steel plates protect the over head.	YØ N] U] N/A]
9. Do attached lines have adequate flexibility to avoid damage? A flexible hose attached to the Temperature element with adequate clearance	YX NI UI N/AI
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 🗍
Comments	
None	
Evaluated by: Chase Wharton ChhA	Date: <u>9/27/2012</u>
Fred Hopkins Juda a Her	9/27/2012
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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 075

 Equipment ID No.
 <u>M71N026A</u>
 Equip. Class<sup>1</sup> <u>19 - Temperature sensors</u>

 Equipment Description
 <u>Temperature Element (Suppression Pool)</u>

## Photographs



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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 075

Equipment ID No. M71N026A Equip. Class<sup>1</sup> 19 - Temperature sensors

Equipment Description <u>Temperature Element (Suppression Pool)</u>



Note:

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Engineering Report No. GGNS-CS-12-00002 Rev. 0 Attachment C Page 256 of 345 Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1- 076 Equipment ID No. T46N003A \_\_\_\_\_ Equip. Class<sup>1</sup> <u>19 - Temperature Sensors</u> Equipment Description Temperature Element (ESF Elec Switchgear East Room) Location: Bldg. AB Floor El. 119 Room, Area 1A208, 07 Manufacturer, Model, Etc. (optional but recommended) Thermo Electric, 27620 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  $Y \boxtimes N$ of the 50% of SWEL items requiring such verification)? 2. Is the anchorage free of bent, broken, missing or loose hardware? Angle member supporting temerature element is mounted to the wall using (2) 1/2" dia. concrete anchor bolts. See photo. No bent, broken, missing or loose hardware found. 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Wall is covered with epoxy coating; no visual indication of corrosion found 4. Is the anchorage free of visible cracks in the concrete near the anchors? Wall is covered with epoxy coating; no visual indication of concrete crack found 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Anchorage was checked against drawing J-0157T Rev. 6, and the configuration shown on the drawing matched the field condition. YX NO UO 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 076</u>	Status: YX N U
Equipment ID No. <u>T46N003A</u> Equip. Class <u>19 - Temperature Se</u>	nsors
Equipment Description <u>Temperature Element (ESF Elec Switchgear East Room</u>	<u>m)</u>
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures? All surrounding equipments/structures are rigidly supported.</li> </ol>	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? All overhead items (cable tray, conduit) are rigidly supported. Temperature element is supported on masonry block wall, which is seismically qualified per calculation C-H015.2. Nearby Gai-Tronics speaker is judged to be acceptable based on ovicting cloropoper.	Y⊠ N□ U□ N/A□
<ol> <li>Do attached lines have adequate flexibility to avoid damage?</li> <li>Flex conduit has been used for routing cable to the temperature element, therefore attached line has adequate flexibility.</li> </ol>	Y⊠ N∏ U∏ N/A∏
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX NO UO
Comments	
None	
Evaluated by: Kyong S. (Jason) Pak mong S. Coz	Date: <u>10/8/2012</u>
Tori Robinson Mru (Kolunson	10/8/2012
	Page 2 of 3

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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 076

 Equipment ID No.
 <u>T46N003A</u>
 Equip. Class<sup>1</sup> <u>19 - Temperature Sensors</u>

 Equipment Description
 <u>Temperature Element (ESF Elec Switchgear East Room)</u>

#### Photographs



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Engineering Report No. GGNS-CS-12-00002 Rev. 0 Attachment C Page 259 of 345 Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1- 077 Equipment ID No. Y47N005B Equip. Class<sup>1</sup> 19 - Temperature Sensors Equipment Description <u>Temperature Element (SSW Pump House B Space Temperature Element)</u> Location: Bldg. SSW Floor El. 133 Room, Area 2M110, SSW Manufacturer, Model, Etc. (optional but recommended) Thermo Electric, 27620 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  $Y \boxtimes N$ of the 50% of SWEL items requiring such verification)? 2. Is the anchorage free of bent, broken, missing or loose hardware? Angle member supporting temerature element is mounted to the wall using (2) 1/2" dia. concrete anchor bolts. See photo. No bent, broken, missing or loose hardware found. 3. Is the anchorage free of corrosion that is more than mild surface oxidation? No visual indication of corrosion found. 4. Is the anchorage free of visible cracks in the concrete near the YX NO UO N/AO anchors? No visual indication of concrete crack found. 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Anchorage was checked against drawing J-0157T Rev. 6, and the configuration shown on the drawing matched the field condition. YX NI UI 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC) <u>SWEL1- 077</u>	Status: Y⊠ N□ U□	
Equipment ID No. <u>Y47N005B</u> Equip. Classi <u>19 - Temperature Sen</u>	sors	
Equipment Description Temperature Element (SSW Pump House B Space Tem	perature Element)	
Interaction Effects		
7. Are soft targets free from impact by nearby equipment or structures? All surrounding equipments/structures are rigidly 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? All overhead items (mainly cable trays) are rigidly supported.	Y⊠ N∏ U∏ N/A∏	
9. Do attached lines have adequate flexibility to avoid damage? Flex conduit has been used for routing cable to the temperature element, therefore attached line 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?	YX N U	
<u>Comments</u> Asset Suite shows this equipment is in Room 2M112, but it is in Room 2M110.		

Evaluated by: Kyong S. (Jason) Pak	mona S. On	Date: 9/24/2012
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Tori Robinson	Un Jobunson	9/24/2012
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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 077

Equipment ID No. <u>Y47N005B</u> Equip. Class<sup>1</sup> <u>19 - Temperature Sensors</u>

Equipment Description <u>Temperature Element (SSW Pump House B Space Temperature Element)</u>

#### Photographs



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Attachment			
Status: YX N U			
Equipment ID No. <u>B21N697B</u> Equip. Class <sup>1</sup> _20 - Instrumentation and Control Panels			
Equipment Description Trip Unit (REACTOR VESSEL PRESSURE BLOW(ECCS INJ PERM) SWITCH)			
Location: Bldg. <u>CB</u> Floor El. <u>166</u> Room, Area <u>OC504,CB</u>			
Manufacturer, Model, Etc. (optional but recommended) <u>ROSEMOUNT, 710DU0TS</u>			
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			
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N</li></ol>			
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ Item is mounted to panel H13P618, and panel is bolted to structural			
<ul> <li>3. Is the anchorage free of corrosion that is more than mild surface</li> <li>Y N U N/A</li> </ul>			
There is no apparent oxidation.			
<ol> <li>Is the anchorage free of visible cracks in the concrete near the Y□ N□ U□ N/A⊠ anchors?</li> </ol>			
Panel anchored to steel I-Beams			
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>Y N U N/AX</li> <li>(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ol>			
Anchorage verified with 865E715.			
6. Based on the above anchorage evaluations, is the anchorage free of YX N U			

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC) <u>SWEL1- 078</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>B21N697B</u> Equip. Class <sup>1</sup> 20 - Instrumentation	and Control Panels
Equipment Description Trip Unit (REACTOR VESSEL PRESSURE BLOW(EC	CS INJ PERM) SWITCH)
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures? Adequate clearance is provided	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? Overhead lighting appears to be adequately supported.	YX NI UI N/AI
9. Do attached lines have adequate flexibility to avoid damage? Connecting wires and flex conduit have adequate flexibility	Y 🛛 N 🗌 U 🗍 N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
Other Adverse Conditions 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	
<u>Comments</u> None	
Evaluated by: <u>Chase Wharton</u> CMUA Fred Hopkins	Date: <u>10/2/2012</u> <u>10/2/2012</u> Page <b>2</b> of <b>4</b>

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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 078

 Equipment ID No.
 B21N697B
 Equip. Class<sup>1</sup> 20 - Instrumentation and Control Panels

 Equipment Description
 Trip Unit (REACTOR VESSEL PRESSURE BLOW(ECCS INJ PERM) SWITCH)

## Photographs



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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 078

Equipment ID No. <u>B21N697B</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description <u>Trip Unit (REACTOR VESSEL PRESSURE BLOW(ECCS INJ PERM) SWITCH)</u>



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Note:	<u></u>		nin i lini i indan

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 079</u>			
Equipment ID No. <u>H13P669</u> Equip. Class <sup>1</sup> 20 - Instrumentation and Control Panels			
Equipment Description Power Range Monitor A (DIV 1 NEUT and Radiation Mo	onitoring Cabinet)		
Location: Bldg. <u>CB</u> Floor El. <u>189</u> Room, Area <u>OC703, CB</u>			
Manufacturer, Model, Etc. (optional but recommended) <u>General Electric CO</u>			
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? Panel is anchored to the floor beams. In Bay A & B, four out of eight screws are missing for the mounting plate. See photos. (CR 2012-11465 initiated WR# 00286756) In Bay B, bolt/nut is missing on one of the flex conduit support clamp. See photo. In Bay B, nut for mounting elec. board to the side of panel is not fully engaged (threaded stud is not long enough). (CR 2012- 11461 initiated WR# 00286750) In Bay C, four out of eight bolts are missing for connecting panel H13P669 to the Halon panel H13P913. Also, one of installed bolt is loose. See photo. Halon panel is anchored to the floor beams. There is no concern for potential seismic interaction between the non-safety related Halon Panel 1H13P913and the Upper Control Room (UCR) Panels 1H13P669. The halon panels are installed at the end of a series of UCR panels. The halon panels are bolted to the UCR floor. Experience and seismic testing indicated that in the side-to-side direction the UCR panels are rigid. The Halon panels and the UCR panels are butted together with no gaps. With no gap, the displacement experienced would be minimal. During a seismic event the panels would act together as a rigid body and will not adversely affect any of the other panels. Therefore, the impact from the halon panels on the UCR panels would not induce any significant additional loading during a seismic event.			
<ol><li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li></ol>			

No visual indication of corrosion found.

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 079</u>	Status: Y N N		
Equipment ID No. <u>H13P669</u> Equip. Class <u>. 20 - Instrumentation a</u>	and Control Panels		
Equipment Description Power Range Monitor A (DIV 1 NEUT and Radiation Me	onitoring Cabinet)		
4. Is the anchorage free of visible cracks in the concrete near the anchors?			
No concrete attachment 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.)			
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YX ND UD		
Interaction Effects			
<ol><li>Are soft targets free from impact by nearby equipment or structures? This equipment is not a soft target.</li></ol>			
<ol> <li>Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (HVAC duct, conduit, cable tray) are rigidly supported.</li> </ol>	Y⊠ N□ U□ N/A□		
<ol> <li>Do attached lines have adequate flexibility to avoid damage?</li> <li>All attached lines inside of the panel have sufficient flexibility.</li> </ol>			
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX NO UO		
Other Adverse Conditions			
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?			
Comments			
Evaluated by: Fred Hopkins	Date: 11-14-12		
Tori Robinson Fori Robinson	11-14-12		

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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 079

Equipment ID No. <u>H13P669</u> Equip. Class<sup>1</sup> 20 - Instrumentation and Control Panels

Equipment Description Power Range Monitor A (DIV 1 NEUT and Radiation Monitoring Cabinet)

## Photographs





Note: Missing screws (Bay A)



Note: Missing screws (Bay B)

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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 079

Equipment ID No. <u>H13P669</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Power Range Monitor A (DIV 1 NEUT and Radiation Monitoring Cabinet)



**Note:** Nut not fully engaged to the threaded stud



Note: Missing bolt and nut on clamp



Note: Missing bolt (between two panels)

Note:		

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Status. The Net Of Status. The Net Of Status.
Equipment ID No. <u>H13P691</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation and Control Panels</u>
Equipment Description Pressure Indicating Switch (Division 1 RPS Logic VB)
Location: Bldg. CB Floor El. 189 Room, Area OC703, CB
Manufacturer, Model, Etc. (optional but recommended) <u>General Electric CO</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one YX N of the 50% of SWEL items requiring such verification)?</li> </ol>
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>Y N∑ U N/A Panel is anchored to the floor beams.</li> <li>In Bay A, put on the bracket that mounts the wire support plate to the</li> </ol>
unistrut is loose (hand verified by electrician). (CR 2012-11459 initiated WR# 00286749)
In Bay B, nut is missing on the bracket that mounts the wire support plate to the unistrut. (CR 2012-11458 initiated WR# 00286748)
In Bay B, few nuts for mounting elec. board to the side of panel are not fully compressed or not fully engaged (threaded stud is not long enough). (CR 2012-11458 initiated WR# 00286748)
3. Is the anchorage free of corrosion that is more than mild surface YX N U N/A
No visual indication of corrosion found.
<ol> <li>Is the anchorage free of visible cracks in the concrete near the Y N U N/A A N/A A N/A N/A</li> </ol>
No concrete attachment
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>YX NU VI N/AU</li> <li>(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ol>
Per drawing 865E712, panel is mounted to the floor beams using welded studs. Studs are welded to the beams every 6" C-C where panel's slotted holes fit in to, and this condition has been verified.
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y NX U potentially adverse seismic conditions?</li> <li>See guestion number 2.</li> </ol>

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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		Status: Y🛛 N🗌 U
Selsmic Walkdown Checklist (SWC) <u>SV</u>	<u>VEL1- 080</u>	
Equipment ID No. <u>H13P691</u> Equ	ip. Class <u><sup>1</sup> 20 - Instrumentation</u> a	and Control Panels
Equipment Description Pressure Indicating Swi	tch (Division 1 RPS Logic VB)	
Interaction Effects		
7. Are soft targets free from impact by near This equipment is not a soft target.	by equipment or structures?	Y□ N□ U□ N/A⊠
8. Are overhead equipment, distribution sys and masonry block walls not likely to colli All overhead items (conduit) are rigidly su	items, ceiling tiles and lighting, apse onto the equipment? upported.	
9. Do attached lines have adequate flexibilit All attached lines inside of the panel have	ty to avoid damage? e sufficient flexibility.	
10. Based on the above seismic interaction e of potentially adverse seismic interaction	evaluations, is equipment free effects?	YN N U
Other Adverse Conditions		
<ol> <li>Have you looked for and found no other s adversely affect the safety functions of th</li> </ol>	seismic conditions that could e equipment?	YX NI UI
Comments		
Blake Rice (NRC Inspector) came with us panel door for SWE.	s to the walkdown, and Troy Pate	e (Electrician) opened the
Evaluated by: Kyong S. (Jason) Pak	ng S. Oy	Date: 10/9/2012
Tori Robinson	Robinson	10/9/2012

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Status: YX N U

#### Seismic Walkdown Checklist (SWC) SWEL1- 080

Equipment ID No. <u>H13P691</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Pressure Indicating Switch (Division 1 RPS Logic VB)

#### Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 081</u>
Equipment ID No. <u>H13P872</u> Equip. Class <sup>1</sup> 20 - Instrumentation and Control Panels
Equipment Description Level Indicating Switch (Division 2 ESF Logic VB)
Location: Bldg. <u>CB</u> Floor El. <u>166</u> Room, Area <u>OC504, CB</u>
Manufacturer, Model, Etc. (optional but recommended) <u>General Electric CO., 1H13P872</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>Y⊠ N□ U□ N/A□</li> <li>Panel is anchored to the floor beams.</li> <li>No bent, broken, missing or loose hardware found.</li> </ol>
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?
No visual indication of corrosion found.
4. Is the anchorage free of visible cracks in the concrete near the Y□ N□ U□ N/A⊠ anchors? No concrete attachment
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>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.)</li> </ol>
Per drawing 865E707, panel is mounted to the floor beams using welded studs. Studs are welded to the beams every 6" C-C where panel's slotted holes fit in to, and this condition has been verified.
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of YX NUU</li> <li>potentially adverse seismic conditions?</li> </ol>

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 081</u>	Status: Y⊠ N_ U_
Equipment ID No. <u>H13P872</u> Equip. Class: 20 - Instrumentation	and Control Panels
Equipment Description Level Indicating Switch (Division 2 ESF Logic VB)	
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures? This equipment is not a soft target.</li> </ol>	Y N U N/AØ
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (air vent is secured to the ceiling with screws) are rigidly supported.	YX N U N/A
9. Do attached lines have adequate flexibility to avoid damage? All attached lines inside of the panel have sufficient flexibility.	YX N U U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX N U
Comments	
David Jones (Electrician) opened panel for Swe.	
Evaluated by: Kvong S. (Jason) Pak	Date: <u>10/2/2012</u>
Frederick Hopkins John (Johnson-	10/2/2012
	Page 2 of

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Status: YX N U

## Seismic Walkdown Checklist (SWC) \_\_\_\_\_ SWEL1-\_\_081\_\_

Equipment ID No. <u>H13P872</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u> Equipment Description <u>Level Indicating Switch (Division 2 ESF Logic VB)</u>

#### Photographs





**Note:** Anchorage of panel to the floor beam (studs), 6" C-C



Note: Back of the panel (Opened)

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> State

Seismic Walkdown Checklist (SWC) <u>SWEL1- 082</u>	Status: YX NL UL	
Equipment ID No. <u>E31N602A</u> Equip. Class <u> 20 - Instrumentation a</u>	and Control Panels	
Equipment Description Temp Switch (RCIC Equipment Area Temperature Switch	ch)	
Location: Bldg. <u>CB</u> Floor El. <u>189</u> Room, Area <u>OC703, CB</u>		
Manufacturer, Model, Etc. (optional but recommended) Scientech Inc./NUS C	orp., NUS-A076PA-1 LDTM-T	
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		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y⊠ N□	
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware? Temp switch E31N602A, among with other components, is mounted to the mounting plate. Mounting plate is attached to the panel H13P632 using (4) screws. Panel is anchored to the floor beams. In Bay B, one of nut/lock washer for mounting elec. board to the side of panel is not fully compressed. (CR 2012-11457 initiated WR# 00286746) See photo. In Bay C, one of nut for mounting elec. board to the side of panel is not fully engaged (threaded stud is not long enough). (CR 2012-11456 initiated WR# 00286759)</li> </ol>	Y	
<ul> <li>3. Is the anchorage free of corrosion that is more than mild surface oxidation?</li> </ul>	Y⊠ N∏ U∏ N/A∏	
No visual indication of corrosion found.		
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y N U N/A⊠	
No concrete attachment		
<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>	Y⊠ N□ U□ N/A□ .	
Per drawing 865£712, panel is mounted to the floor beams using welded studs. Studs are welded to the beams every 6" C-C where panel's slotted holes fit in to, and this condition has been verified.		
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y NX U	
See question number 2.		

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 082</u>	Status: Y⊠ N⊟ U⊟
Equipment ID No. <u>E31N602A</u> Equip. Class <sup>1</sup> 20 - Instrumentation	and Control Panels
Equipment Description Temp Switch (RCIC Equipment Area Temperature Switch)	ich)
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures? All equipments/structures nearby are rigidly supported.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (conduit, pipe) are rigidly supported.	Y⊠ N∏ U∏ N/A∏
9. Do attached lines have adequate flexibility to avoid damage? Flex cable has been used, therefore attached line has adequate flexibility.	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX NI UI
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	
Comments	
Blake Rice (NRC Inspector) came with us to the walkdown, and Troy Pat panel door for SWE.	e (Electrician) opened the
Evaluated by: Kyong S. (Jason) Pak	Date: <u>10/9/2012</u>
Tori Robinson Hour Kolunson	10/9/2012

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Status: YX N U

#### Seismic Walkdown Checklist (SWC) SWEL1- 082

Equipment ID No. <u>E31N602A</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description <u>Temp Switch (RCIC Equipment Area Temperature Switch)</u>

#### **Photographs**







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Status: YX N U			
Seismic Walkdown Checklist (SWC) <u>SWEL1- 083</u>			
Equipment ID No. <u>E31N690A</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation and Control Panels</u>			
Equipment Description Pressure Differential Switch (RCIC Steam Line Flow Highswitch)			
Location: Bldg. <u>CB</u> Floor El. <u>189</u> Room, Area <u>OC703, CB</u>			
Manufacturer, Model, Etc. (optional but recommended) <u>Rosemount, 510DU7</u>			
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			
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>			
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N ∪ N/A ∪ N/A ∪ Pressure Differential switch E31N690A, among with other components, is mounted to the mounting plate. Mounting plate is attached to the panel H13P629. Panel is anchored to the floor beams. In Bay C, five out of eight bolts are missing for connecting panel H13P629 to the Halon panel H13P936. Halon panel is anchored to the floor beams. There is no concern for potential seismic interaction between the non-safety related Halon Panel 1H13P936 and the Upper Control Room (UCR) Panel 1HP629. The halon panels are installed at the end of a series of UCR panels. The halon panels are bolted to the UCR floor. Experience and seismic testing indicated that in the sideto-side direction the UCR panels are rigid. The Halon panels and the UCR panels are butted together with no gaps. With no gap, the displacement experienced would be minimal. During a seismic event the panels would act together as a rigid body and will not adversely affect any of the other panels. Therefore, the impact from the halon panels on the UCR panels would not induce any significant additional loading during a seismic event.			
3. Is the anchorage free of corrosion that is more than mild surface YX N U N/A oxidation?			
4. Is the anchorage free of visible cracks in the concrete hear the Y N N U N/AX anchors?			
No concrete attachment			

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 083</u>		
Equipment ID No. E31N690A Equip. Class: 20 - Instrumentation and Control Panels		
Equipment Description Pressure Differential Switch (RCIC Steam Line Flow Hi	ghswitch)	
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.) Per drawing 865E711, panel is mounted to the floor beams using welded study. Study are welded to the beams every 6" C-C where	Y⊠ N□ U□ N/A□	
panel's slotted holes fit in to, and this condition has been verified.		
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YX N U	
Interaction Effects		
<ol><li>Are soft targets free from impact by nearby equipment or structures? All equipments/structures nearby are rigidly supported.</li></ol>	YX N UNA	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (HVAC duct, conduit, cable tray, etc.) are rigidly supported.	Y⊠ N∏ U∏ N/A∏	
<ol> <li>Do attached lines have adequate flexibility to avoid damage?</li> <li>Flex cable has been used, therefore attached line has adequate flexibility.</li> </ol>	Y⊠ N□ U□ N/A□	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX NI UI	
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□	

#### **Comments**

Plastic bag left inside of the panel. See photo.

Hefter Date: 11-14-12 Polunson 11-14-12 refor Evaluated by: Fred Hopkins Tori Robinson

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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1- 083

Equipment ID No. <u>E31N690A</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Pressure Differential Switch (RCIC Steam Line Flow Highswitch)

Photographs





**Note:** Inside of the panel, plastic bag left inside





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Status: YX N U

Status: YX N_ U
equipment ID No. <u>B21N682D</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation and Control Panels</u>
equipment Description Level Switch (REACTOR VESSEL LEVEL LOW (PCIS/SCI/RWCU) SWITCH)
ocation: Bldg. <u>CB</u> Floor El. <u>166</u> Room, Area <u>OC504,CB</u>
Ianufacturer, Model, Etc. (optional but recommended) <u>ROSEMOUNT,510DU7</u>
nstructions for Completing Checklist
his checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the WEL. The space below each of the following questions may be used to record the results of judgments and ndings. Additional space is provided at the end of this checklist for documenting other comments.
Inchorage
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> <li>Item mounted to panel H13P694 with vendor provided mounting slots. 3 slots per side with 1.75" spacing and 3.5" spacing</li> </ol>
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>Y□ N⊠ U□ N/A□</li> <li>One nut missing on panel stud. CR-GGN-2012-11255</li> </ol>
3. Is the anchorage free of corrosion that is more than mild surface Y N U N/A N/A
There is no apparent oxidation.
<ul> <li>4. Is the anchorage free of visible cracks in the concrete near the Y N U N/A N U N/A N U N/A N Panel anchored to steel I-Beams</li> </ul>
5. Is the anchorage configuration consistent with plant documentation? Y NX U N/A (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Equipment mounts consistent with QP388. Panel anchorage missing one nut and washer. See Question 2
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y N∑ U potentially adverse seismic conditions?</li> </ol>

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC) <u>SWEL1- 084</u>	Status: Y⊠ N⊡ U⊡	
Equipment ID No. <u>B21N682D</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation and Control Panels</u>		
Equipment Description Level Switch (REACTOR VESSEL LEVEL LOW (PCIS	/SCI/RWCU) SWITCH)	
Interaction Effects		
7. Are soft targets free from impact by nearby equipment or structures? Adequate clearance is provided.		
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead lighting appears to be adequately supported.	YX N U N/A	
9. Do attached lines have adequate flexibility to avoid damage? Connecting wires and flex conduit have adequate flexibility	Y 🛛 N 🗌 U 🗌 N/A 🗌	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX NI UI	
Other Adverse Conditions		
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX NI UI	
Comments		
None		
Evaluated by: Chase Wharton Chub	Date: <u>10/2/2012</u>	
Fred Hopkins	10/2/2012	
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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1- 084

Equipment ID No. <u>B21N682D</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u> Equipment Description <u>Level Switch (REACTOR VESSEL LEVEL LOW (PCIS/SCI/RWCU) SWITCH)</u>

## Photographs



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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 084

Equipment ID No. <u>B21N682D</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Level Switch (REACTOR VESSEL LEVEL LOW (PCIS/SCI/RWCU) SWITCH)





Note: Missing nut and washer.

Note:

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Engineering Report No. GGNS-CS-12-00002 Rev. 0 Attachment C Page 286 of 345 Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1- 085 Equipment ID No. <u>E31N608B</u> Equip. Class<sup>1</sup><u>20 - Instrumentation and Control Panels</u> Equipment Description <u>Temp Switch (RHR B EQUIPMENT AREA 1 TEMPERATURE SWITCH)</u> Location: Bldg. <u>CB</u> Floor El. <u>166</u> Room, Area <u>OC504, CB</u> NUS INSTRUMENTS, A076PA-1 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  $Y \boxtimes N$ of the 50% of SWEL items requiring such verification)? 2. Is the anchorage free of bent, broken, missing or loose hardware? All anchorage in good condition and existing. YX N UNA 3. Is the anchorage free of corrosion that is more than mild surface oxidation? There is no apparent oxidation. 4. Is the anchorage free of visible cracks in the concrete near the anchors? Panel anchored to steel I-Beams 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.) Panel anchorage is consistent with 865E715, and Section 4.3 the Qualification Report in QP 367. Four (4) Screws attach the mounting plate to the panel 6. Based on the above anchorage evaluations, is the anchorage free of YX NU UU potentially adverse seismic conditions?

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Equipment ID No.       E31N608B       Equip. Class! <u>20 - Instrumentation and Control Panels</u> Equipment Description <u>Temp Switch (RHR B EQUIPMENT AREA 1 TEMPERATURE SWITCH)</u> Interaction Effects       ************************************	Selsmic Walkdown Checklist (SWC) <u>SWEL1085</u>	Status: YX N
Equipment Description       Temp Switch (RHR B EQUIPMENT AREA 1 TEMPERATURE SWITCH)         Interaction Effects         7. Are soft targets free from impact by nearby equipment or structures?       Y N U N/A         Adequate clearance is provided.         8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?       Y N U N/A         Overhead lighting appears to be adequately supported.         9. Do attached lines have adequate flexibility to avoid damage?       Y N U N/A         Connecting wires and flex conduit have adequate flexibility       N U N/A         10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?       Y N U U         Other Adverse Conditions       Y N U U       N/A U         11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?       Y N U U         Comments       None       N       N	Equipment ID No. E31N608B Equip. Class <sup>1</sup> 20 - Instrument	tation and Control Panels
Interaction Effects         7. Are soft targets free from impact by nearby equipment or structures?       Y □ □ N/A□         Adequate clearance is provided.         8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?       Y □ □ N/A□         Overhead lighting appears to be adequately supported.       Y □ □ N/A□         9. Do attached lines have adequate flexibility to avoid damage?       Y □ □ N/A□         Connecting wires and flex conduit have adequate flexibility       Y □ □ N/A□         10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?       Y □ □ N□         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 □ □         Comments       None       N□       N□	Equipment Description Temp Switch (RHR B EQUIPMENT AREA 1 TEM	IPERATURE SWITCH)
The action checks         7. Are soft targets free from impact by nearby equipment or structures?       Y⊠ N□ U□ N/A□         Adequate clearance is provided.         8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?       Y⊠ N□ U□ N/A□         Overhead lighting appears to be adequately supported.       Y⊠ N□ U□ N/A□         9. Do attached lines have adequate flexibility to avoid damage?       Y⊠ N□ U□ N/A□         Connecting wires and flex conduit have adequate flexibility       Y⊠ N□ U□ N/A□         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□         Comments       None       None       Y⊠ N□       Y⊠	Interaction Effects	
<ul> <li>8. Are overhead equipment, distribution systems, ceiling tiles and lighting, Y N U NA NA</li></ul>	7. Are soft targets free from impact by nearby equipment or structure Adequate clearance is provided.	s? Y⊠ N□ U□ N/A□
9. Do attached lines have adequate flexibility to avoid damage?       Y⊠ N□ U□ N/A□         Connecting wires and flex conduit have adequate flexibility       Y⊠ N□ U□ N/A□         10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?       Y⊠ N□ U□         Other Adverse Conditions       Y⊠ N□ U□         11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?       Y⊠ N□ U□         Comments       None	8. Are overhead equipment, distribution systems, ceiling tiles and ligh and masonry block walls not likely to collapse onto the equipment? Overhead lighting appears to be adequately supported.	nting, Y⊠ N∏ U∏ N/A∏ ?
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?       Y⊠ N□ U□         Other Adverse Conditions       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□         Comments       None	9. Do attached lines have adequate flexibility to avoid damage? Connecting wires and flex conduit have adequate flexibility	YX NI UI N/AI
Other Adverse Conditions         11. Have you looked for and found no other seismic conditions that could       Y IN IU         adversely affect the safety functions of the equipment?         Comments         None	10. Based on the above seismic interaction evaluations, is equipment of potentially adverse seismic interaction effects?	free Y⊠ N U
11. Have you looked for and found no other seismic conditions that could Y⊠ N□ U□ adversely affect the safety functions of the equipment?           Comments	Other Adverse Conditions	
Comments None	11. Have you looked for and found no other seismic conditions that con adversely affect the safety functions of the equipment?	
Comments None		
None	Comments	
	None	
	$Cl \downarrow I$	
Cl. 1. 1	Evaluated by: Chase Wharton (M W A	Date: <u>10/2/2012</u>
Evaluated by: Chase Wharton Ch W A	Fred Hopkins Junor Acy	<u>10/2/2012</u>
Evaluated by: <u>Chase Wharton</u> (MWA Date: <u>10/2/2012</u> <u>Fred Hopkins</u> <u></u> <u>10/2/2012</u>	$\mathcal{U}$	Page 2
Evaluated by: <u>Chase Wharton</u> (UWA Date: <u>10/2/2012</u> <u>Fred Hopkins</u> Jucker Act <u>10/2/2012</u> Page		
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Status: YX N U

#### Seismic Walkdown Checklist (SWC) SWEL1- 085

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

 Equipment Description
 Temp Switch (RHR B EQUIPMENT AREA 1 TEMPERATURE SWITCH)

Photographs

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Note:	Note:

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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 085

Equipment ID No. <u>E31N608B</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Temp Switch (RHR B EQUIPMENT AREA 1 TEMPERATURE SWITCH)



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 086</u>	
Equipment ID No. <u>H13P601</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation</u>	and Control Panels
Equipment Description Level Recorder (Reactor Core Cooling BB)	
Location: Bldg. CB Floor El. 166 Room, Area OC503, CB	
Manufacturer, Model, Etc. (optional but recommended) <u>General Electric Co.</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and g other comments.
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y⊠N□
2. Is the anchorage free of bent, broken, missing or loose hardware? Panel is anchored to the floor beam's welded studs. Studs are welded to the beams every 6" C-C where panel's slotted holes fit in to. No bent, broken, missing or loose hardware found.	Y⊠ N□ U□ N/A□
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Y⊠ N□ U□ N/A□
No visual indication of corrosion found.	
4. Is the anchorage free of visible cracks in the concrete near the anchors? No concrete attachment	Y□ N□ U□ N/A⊠
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Per drawing 865E675 & 865E721, panel is mounted to the floor beams using welded studs. Studs are welded to the beams every 6" C-C where panel's slotted holes fit in to, and this condition has been verified.	Y⊠ N∏ U∏ N/A∏
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YX NI UI

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 086</u>	Status: Y N U
Equipment ID No. <u>H13P601</u> Equip. Class <u>20 - Instrumentation</u>	and Control Panels
Equipment Description Level Recorder (Reactor Core Cooling BB)	
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures? This equipment is not a soft target.</li> </ol>	Y N U NAX
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (air vent is secured to the ceiling with screws) are rigidly supported.	Y⊠ N∏ U∏ N/A∏
9. Do attached lines have adequate flexibility to avoid damage? All attached lines inside of the panel have sufficient flexibility.	Y⊠ N∏ U∏ N/A∏
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX NO UO
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX NO UO
Comments	
Evaluated by: Kyong S. (Jason) Pak	Date: <u>10/4/2012</u>
The Kalling	10/1/00/10

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Status: YX N U

### Seismic Walkdown Checklist (SWC) SWEL1- 086

Equipment ID No. <u>H13P601</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Level Recorder (Reactor Core Cooling BB)

#### Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 087</u>	
Equipment ID No. <u>H22P150</u> Equip. Class <u>20 - Instrumentation a</u>	and Control Panels
Equipment Description Remote Shutdown Panel A	
Location: Bldg. <u>CB</u> Floor EI. <u>111</u> Room, Area <u>OC208,CB</u>	· · · · · · · · · · · · · · · · · · ·
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and other comments.
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Panel welded to chanel,chanel welded to tube steel, tube steel welded to plate, plate anchored to concrete.	Y⊠ N□ U□ N/A□
<ul><li>3. Is the anchorage free of corrosion that is more than mild surface oxidation?</li><li>Anchorage is coated</li></ul>	Y⊠ N∏ U∏ N/A∏
4. Is the anchorage free of visible cracks in the concrete near the anchors? No visible cracks	Y⊠ N∏ U∏ N/A∏
<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>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 087</u>	Status: Y N U		
Equipment ID No. <u>H22P150</u> Equip. Class: <u>20 - Instrumentation and Control Panels</u>			
Equipment Description Remote Shutdown Panel A			
Interaction Effects			
7. Are soft targets free from impact by nearby equipment or structures? Item has no soft targets			
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead equipment above the Remote Shutdown Panel is seismically restrained and does not create an adverse seismic condition	Y⊠ N[] U[] N/A[]		
9. Do attached lines have adequate flexibility to avoid damage? Flexible conduit is attached to Remote Shutdown Panel with adequate clearance	Y⊠ N□ U□ N/A□		
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YM 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 🛄		
Comments			
None			
Evaluated by: Chase Wharton Chul	Date: <u>10/10/2012</u>		
Fred Hopkins Fred Hopkins	10/10/2012		
	Page 2 of 4		

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Status: YX N U

### Seismic Walkdown Checklist (SWC) SWEL1- 087

Equipment ID No. <u>H22P150</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Remote Shutdown Panel A

## Photographs



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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 087

Equipment ID No. <u>H22P150</u> Equip. Class<sup>1</sup> 20 - Instrumentation and Control Panels

 Equipment Description
 Remote Shutdown Panel A

 "SECURITY SENSITIVE PHOTO PHOTO REMOVED"
 Note:

 Note:
 Note:

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 088</u>		
Equipment ID No. <u>H22P296</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation and Control Panels</u>		
Equipment Description Alternate Shutdown Panels		
Location: Bldg. <u>AB</u> Floor El. <u>119</u> Room, Area <u>1A219, 09</u>		
Manufacturer, Model, Etc. (optional but recommended) STUART, IRBY C. CO		
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		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>		
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware? Y N∑ U N/A Panel is mounted to the unistrut on support frame, and support frame is anchored to the floor using (4) 5/8" dia. anchor bolts.</li> </ol>		
Panel is mounted to the unistrut using spring nut. Plate inside unistrut (part of mounting assembly) is misaligned. (CR 2012-11455 initiated WR# 00286745) See photo.		
3. Is the anchorage free of corrosion that is more than mild surface Y N U N/A oxidation?		
Floor is covered with epoxy coating; no visual indication of corrosion found		
<ol> <li>Is the anchorage free of visible cracks in the concrete near the anchors?</li> </ol>		
Floor is covered with epoxy coating; no visual indication of concrete crack found		
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>Y N U N/A</li> <li>(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ol>		
Anchorage was checked against drawing 1A-209-3026, CSD-14 & CSD-15. The configuration shown on the drawing matched the field condition, but minor discrepancies found on field vs. drawing dimensions. However, these minor differences doesn't pose a seismic concern, therefore acceptable.		
6. Based on the above anchorage evaluations, is the anchorage free of YX N U Uppotentially adverse seismic conditions?		

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 088</u>	Status: YX N U
Equipment ID No. <u>H22P296</u> Equip. Classi <u>20 - Instrumentation</u>	and Control Panels
Equipment Description Alternate Shutdown Panels	
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures? This equipment is not a soft target.</li> </ol>	Y <u></u> N U U N/A⊠
<ol> <li>Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (mainly cable trays) are rigidly supported.</li> </ol>	Y⊠ N□ U□ N/A□
9. Do attached lines have adequate flexibility to avoid damage? Flex conduit has been used for routing cable to the panel, therefore attached lines have adequate flexibility.	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX 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?	YN N U
<u>Comments</u> Troy Pate (Electrician) opened the panel for SWE.	
Evaluated by: Kyong S. (Jason) Pak	Date: <u>10/8/2012</u>

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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 088

Equipment ID No. <u>H22P296</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description <u>Alternate Shutdown Panels</u>

#### **Photographs**



Note: Front view of the panel



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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 088

Equipment ID No. <u>H22P296</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description Alternate Shutdown Panels



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 089</u>
Equipment ID No. <u>H22P331</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation and Control Panels</u>
Equipment Description DIVISION 1 LOAD SHED SEQ PANEL
Location: Bldg. CB Floor El. 111 Room, Area OC202, CB
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N N∑ of the 50% of SWEL items requiring such verification)?</li> </ol>
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>Y⊠ N□ U□ N/A□</li> <li>Panel is mounted to plate, plate is anchored to concrete.</li> </ol>
<ol> <li>Is the anchorage free of corrosion that is more than mild surface</li> <li>Y⊠ N□ U□ N/A□ oxidation?</li> </ol>
Mild surface oxidation, but does not effect structural ability.
<ol> <li>Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors?</li> <li>No visible cracks</li> </ol>
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>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.)</li> </ol>
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ol>

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPR1 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 089</u>	Status: Y N U
Equipment ID No. <u>H22P331</u> Equip. Class: 20 - Instrumentation	and Control Panels
Equipment Description DIVISION 1 LOAD SHED SEQ PANEL	
Interaction Effects	
<ul> <li>7. Are soft targets free from impact by nearby equipment or structures?</li> <li>Item has no soft targets</li> </ul>	Y N U V/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead equipment is adequately supported	Y⊠ N□ U□ N/A□
9. Do attached lines have adequate flexibility to avoid damage? Flexible conduit is attached to Battery Charger with adequate clearance	Y⊠ N∏ U∏ N/A∏
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX N U
Other Adverse Conditions	<u></u>
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Cable lubricant found at bottom of panel.	
Comments	
None	
Evaluated by: Chase Wharton Ch.W.L.	Date: 10/10/2012
Fred Hopkins under the	10/10/2012
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Status: YX N U

#### Seismic Walkdown Checklist (SWC) SWEL1- 089

Equipment ID No. <u>H22P331</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u>

Equipment Description DIVISION 1 LOAD SHED SEQ PANEL

### Photographs



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Status: YX N		
Seismic Walkdown Checklist (SWC) <u>SWEL1- 090</u>		
Equipment ID No. <u>H22P401</u> Equip. Class <sup>1</sup> <u>20 - Instrumentationand Control Panels</u>		
Equipment Description STBY DG Engine Control Panel (Diesel Generator Instrument Panel Div 2)		
Location: Bldg. <u>DG</u> Floor El. <u>133</u> Room, Area <u>1D308, DSL</u>		
Manufacturer, Model, Etc. (optional but recommended) <u>Cooper Energy, SVSS 09-500-74033</u>		
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		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N N∑ of the 50% of SWEL items requiring such verification)?</li> </ol>		
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>Y N□ U□ N/A□</li> <li>Panel is supported by channel frame which is anchored to the floor.</li> <li>See photo.</li> <li>No bent, broken, missing or loose hardware found.</li> </ol>		
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?		
Floor is covered with epoxy coating; no visual indication of corrosion found.		
<ol> <li>Is the anchorage free of visible cracks in the concrete near the YX N□ U□ N/A□ anchors?</li> </ol>		
Floor is covered with epoxy coating; no visual indication of concrete crack found.		
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>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.)</li> </ol>		
6. Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?		

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 090</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>H22P401</u> Equip. Class <sup>1</sup> _20 - Instrumentation	and Control Panels
Equipment Description STBY DG Engine Control Panel (Diesel Generator Inst	rument Panel Div 2)
Interaction Effects	······································
7. Are soft targets free from impact by nearby equipment or structures? This equipment is not a soft target.	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? All overhead items (mainly cable trays) are rigidly supported. In the vicinity, light fixtures are hung with chain using S-hook. However, light fixtures are not directly located over any safety related	Y N N U N/A
<ul> <li>equipment. Therefore, this condition doesn't pose a seismic concern.</li> <li>9. Do attached lines have adequate flexibility to avoid damage?</li> <li>All conduits routed to the panel have flex connections, therefore acceptable.</li> </ul>	YØ N U U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX 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?	
<u>Comments</u> Blake Rice (NRC Inspector) came with us to the walkdown, and Electricia SWE.	an opened the panel door for
Evaluated by: Kyong S. (Jason) Pak	Date: <u>9/27/2012</u>
Tori Kobinson Juck Juck	9/27/2012
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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL1- 090

 Equipment ID No.
 <u>H22P401</u>
 Equip. Class<sup>1</sup> <u>20 - Instrumentationand Control Panels</u>

 Equipment Description
 <u>STBY DG Engine Control Panel (Diesel Generator Instrument Panel Div 2)</u>

#### Photographs





Note: Inside of the panel

A1 - 4	 	 
Note:		

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 091</u>	Status: Y⊠ N⊡ U⊡
Equipment ID No. <u>M71N602A</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation ar</u>	nd Control Panels
Equipment Description Strip Chart Recorder (RG 1.97) (Containment Pressure F	lighswitch)
Location: Bldg. <u>CB</u> Floor El. <u>189</u> Room, Area <u>OC703, CB</u>	·····
Manufacturer, Model, Etc. (optional but recommended) Rosemount, 510DU237	7155
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of a SWEL. The space below each of the following questions may be used to record th findings. Additional space is provided at the end of this checklist for documenting	in item of equipment on the ne results of judgments and other comments.
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y∏ N⊠
<ul> <li>2. Is the anchorage free of bent, broken, missing or loose hardware? Strip chart recorder M71N602A is mounted to the panel H13P871. Panel is anchored to the floor beams. In Bay A, one screw (out of 12 total) is missing on mounting plate for WAKI-YX-P871. Also, cable bundle on top of the panel is not properly secure to the wire support plate nearby. (CR 2012-11464 initiated WR# 00286754) In Bay D, bolts/nuts are missing on two of flex conduit support clamps. See photo. Additionally, two flex conduits shown on photo are not properly supported. (CR 2012-11463 initiated WR# 00286753) In Bay E, one screw (out of four total) is missing on mounting plate/bracket of M71N606A and M71N616A. (CR 2012-11462 initiated WR #00286751) See photo. In Bay H, Panel H13P871 and Halon panel right next to it are not connected to each other. There are holes on halon panel but not on panel H13P871. Halon panel is anchored to the floor beams. There is no concern for potential seismic interaction between the non-safety related Halon Panel 1H13P915 and the Upper Control Room (UCR) Panels 1H13P871. The halon panels are installed at the end of a series of UCR panels. The halon panels are bolted to the UCR floor. Experience and seismic testing indicated that in the side-to-side direction the UCR panels. The Halon panels and the UCR panels are butted together with no gaps. With no gap, the displacement experienced would be minimal. During a seismic event the panels would act together as a rigid body and will not adversely affect any of the other panels. Therefore, the impact from the halon panels on the UCR panels would not induce any significant additional loading during a seismic event.</li> </ul>	

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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	Status: YX N U	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 091</u>		
Equipment ID No. <u>M71N602A</u> Equip. Class: <u>20 - Instrumentation a</u>	and Control Panels	
Equipment Description Strip Chart Recorder (RG 1.97) (Containment Pressure	Highswitch)	
3. Is the anchorage free of corrosion that is more than mild surface oxidation? No visual indication of corrosion found.		
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y N U N/A	
No concrete attachment 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⊠	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y NX U	
See question number 2.		
Interaction Effects		
<ol><li>Are soft targets free from impact by nearby equipment or structures? All equipments/structures nearby are rigidly supported.</li></ol>		
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (HVAC duct, conduit, etc.) are rigidly supported.	Y N U U N/A	
<ol> <li>Do attached lines have adequate flexibility to avoid damage?</li> <li>Flex cable has been used, therefore attached line has adequate flexibility</li> </ol>	Y⊠ N∏ U∏ N/A∏	
<ol> <li>Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?</li> </ol>	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?	YX N U	
Comments		
In bay C, three broken tie-wraps found.		
AII	1/11/-10	

Evaluated by: Fred Hopkins Junt Date: 11-14-12 Tori Robinson For Robinson 11-14-12

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Status: YX N U

### Seismic Walkdown Checklist (SWC) SWEL1- 091

Equipment ID No. <u>M71N602A</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Control Panels</u> Equipment Description <u>Strip Chart Recorder (RG 1.97) (Containment Pressure Highswitch)</u>

#### Photographs







**Note:** Missing bolt on mounting bracket for M71N606A & M71N616A

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 092</u>	
Equipment ID No. <u>E12B002B</u> Equip. Class <sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>	
Equipment Description RHR Heat Exchanger	
Location: Bldg. <u>AB</u> Floor El. <u>93</u> Room, Area <u>1A106, 08</u>	
Manufacturer, Model, Etc. (optional but recommended) <u>GENERAL ELECTRIC CO, 762E987</u>	
Instructions for Completing Checklist	· · · · · · · · ·
This checklist may be used to document the results of the Seismic Walkdown of an item of equipment SWEL. The space below each of the following questions may be used to record the results of judgmen findings. Additional space is provided at the end of this checklist for documenting other comments.	on the ts and
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>	
Item achored to civil structure at the 108' elevation.Structural columns are anchored to concrete at 93' elevation. Horizontal load supports at 119 EL had fire proof coating, but keys and key ways were visible and in compliance with plant documents.	
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N $\boxtimes$ V $\boxtimes$ N/A	
Missing second nut on one bolt (CR-GGN-2012-11311). 1/4" gap between bolt head and washer(CR-GGN-2012-11312).	
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A[ oxidation?	
Anchorage is coated and there is no apparent oxidation.	
4. Is the anchorage free of visible cracks in the concrete near the $YX N \square U \square N/A$	
anchors?	
Heat exchanger anchored to stee Columnl. Column anchorage has no visible cracks	
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>Y NX U N/A (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ol>	
Drawing indicates 2 nuts for anchor bolts. Documents used for verification are 131C8536, C-1365 E, C-1365D.	
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y□ N⊠ U□ potentially adverse seismic conditions?</li> </ol>	

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 092</u>	S	tatus: Y⊠ N□ U□
Equipment ID No. <u>E12B002B</u> Equip. Class <sup>1</sup> <u>21 - Tanks and Heat</u>	Excha	ngers
Equipment Description RHR Heat Exchanger	<u> </u>	
Interaction Effects		
<ol> <li>Are soft targets free from impact by nearby equipment or structures? Item has no soft targets</li> </ol>	Υ□	N[] U[] N/A[X]
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Structural steel, concrete, grating and lights are installed in the overhead and they do not create any adverse seismic conditions.	Y⊠	N[] U[] N/A[]
9. Do attached lines have adequate flexibility to avoid damage? RHR Heat Exchanger B pipe is rigidly supported and no flex pipes are installed on the RHR Heat Exchanger.	Y⊠	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y⊠	
Other Adverse Conditions 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	ΥØ	N[] U[]
<u>Comments</u> Gap in weld on angle iron drawing shoes all around weld CR-GGN-2012 installed on the Key ways identified on elevation 119'. There are no si fireproofing the connection points were considered intact.	-11314. gns of c	. Fire protection was degradation to the
Evaluated by: Chase Wharton MWA	Date:	<u>10/3/2012</u> 10/3/2012
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Status: YX N U

## Seismic Walkdown Checklist (SWC) \_\_\_\_\_ SWEL1-\_\_092\_\_\_

Equipment ID No. <u>E12B002B</u> Equip. Class<sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>

Equipment Description RHR Heat Exchanger

#### Photographs



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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 092

Equipment ID No. <u>E12B002B</u> Equip. Class<sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>

Equipment Description RHR Heat Exchanger



Note:

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Note:		
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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1- 093</u>
Equipment ID No. <u>P75B006A</u> Equip. Class <sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>
Equipment Description Standby DG Lube Oil Cooler
Location: Bldg. <u>DG</u> Floor El. <u>133</u> Room, Area <u>1D310, DSL</u>
Manufacturer, Model, Etc. (optional but recommended) <u>Thermxchanger, #2020 Type SP</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ Item is welded to saddles, and bolted to steel plates. Steel Plates are bolted to concrete
3. Is the anchorage free of corrosion that is more than mild surface YX N UNA
All anchorage is coated, free from oxidation.
<ul> <li>4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors?</li> <li>No visual cracks in concrete</li> </ul>
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>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.)</li> </ol>
<ul> <li>6. Based on the above anchorage evaluations, is the anchorage free of YX NU U</li> <li>potentially adverse seismic conditions?</li> </ul>

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL1- 093</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>P75B006A</u> Equip. Class <u>1 21 - Tanks and Heat</u>	Exchangers
Equipment Description Standby DG Lube Oil Cooler	
Interaction Effects	
<ol><li>Are soft targets free from impact by nearby equipment or structures?</li></ol>	Y N 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? Item is protected by over head grating.	
9. Do attached lines have adequate flexibility to avoid damage?	Y□ N□ U□ N/A⊠
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?	
Comments None	
Evaluated by: <u>Chase Wharton</u> Ch W J	Date: <u>9/26/2012</u> <u>9/26/2012</u> Page <b>2</b> of <b>4</b>

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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 093

Equipment ID No. <u>P75B006A</u> Equip. Class<sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>

Equipment Description Standby DG Lube Oil Cooler

# Photographs



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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL1- 093

Equipment ID No. <u>P75B006A</u> Equip. Class<sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>

Equipment Description Standby DG Lube Oil Cooler





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Seismic Walkdown Checklist (SWC) <u>SWEL2-001</u> Seismic Walkdown Checklist (SWC) <u>SWEL2-001</u>
Equipment ID No. <u>G41C001A</u> Equip. Class: <u>5 - Horizontal Pumps</u>
Equipment Description FUEL POOL PUMP/MOTOR
ocation: Bldg. <u>AB</u> Floor El. <u>166</u> Room, Area <u>1A432</u>
Nanufacturer, Model, Etc. (optional but recommended) <u>Pump: UNION PUMP CO,6X6X10-1/2 HHM</u> <u>Motor: GE,SK444EK134</u>
nstructions 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 indings. Additional space is provided at the end of this checklist for documenting other comments.
Anchorage
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N N∑ of the 50% of SWEL items requiring such verification)?</li> </ol>
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ Item is mounted to pedestal
<ol> <li>Is the anchorage free of corrosion that is more than mild surface</li> <li>Y∑ N□ U□ N/A□ oxidation?</li> <li>Anchorage is coated</li> </ol>
<ul> <li>4. Is the anchorage free of visible cracks in the concrete near the YX N UNA</li> <li>NA</li> <li>No visible cracks in concrete</li> </ul>
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>Y N U N/A</li> <li>(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ol>
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ol>

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL2-001</u>	Status: Y⊠ N⊡ U[
Equipment ID No. <u>G41C001A</u> Equip. Class <sup>1</sup> <u>5 - Horizontal Pumps</u>	
Equipment Description FUEL POOL PUMP/MOTOR	
Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? Item has no soft targets	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?	Y⊠ N∏ U∏ N/A∏
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N∏ U∏ N/A∏
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
Other Adverse Conditions 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	
<u>Comments</u> None	
Evaluated by: Chase Wharton Church	Date: <u>10/10/2012</u>
rrea hopkins	Page <b>2</b> c

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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL2- 001

Equipment ID No. <u>G41C001A</u> Equip. Class<sup>1</sup> <u>5 - Horizontal Pumps</u>

Equipment Description FUEL POOL PUMP/MOTOR

# Photographs



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Sciemie Welkdown Checklict (SWC) SWEL2 002
Seismic Walkdown Checklist (SWC) <u>SWELZ- 002</u>
Equipment ID No. <u>G41F501</u> Equip. Class <sup>1</sup> <u>8 - Motor-Operated and Solenoid-Operated Valves</u>
Equipment Description Fuel Pool CLG SYS ISO VLVF045 Solenoid
Location: Bldg. <u>AB</u> Floor El. <u>185</u> Room, Area <u>1A527</u>
Manufacturer, Model, Etc. (optional but recommended) <u>Asco - Automatic Switch C, NP8321A6E</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N N∑ of the 50% of SWEL items requiring such verification)?</li> </ol>
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the $Y \square N \square U \square N/A \square$
anchors?
5. Is the anchorage configuration consistent with plant documentation? $Y \square N \square U \square N/A \boxtimes$
(Note: This question only applies if the item is one of the 50% for which
6. Based on the above anchorage evaluations, is the anchorage free of YX NU
potentially adverse seismic conditions?
N/A, in-line equipment

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Equipment ID No. <u>G41F501</u> Equip. Class <u>8 - Motor-Operated and Solenoid-Operated Val</u>		
Equipment Description Fuel Pool CLG SYS ISO VLVF045 Solenoid		
Interaction Effects	****	
<ol> <li>Are soft targets free from impact by nearby equipment or structures? All equipments/structures nearby are rigidly supported.</li> </ol>	YØ 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? All overhead items are rigidly supported.	9, Y⊠ N∏ U∏ N/A∏	
9. Do attached lines have adequate flexibility to avoid damage? Tubing has adequate flexibility.		
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YØ ND UD	
Other Adverse Conditions		
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX NI UI	
Comments		
None		
Evaluated by: Kyong S. (Jason) Pak Jung S. Cz	Date: 10/3/2012	
Tari Robinson Ari Robenson	10/3/2012	

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Status: YX N U

#### Seismic Walkdown Checklist (SWC) SWEL2- 002

 Equipment ID No.
 G41F501
 Equip. Class<sup>1</sup> 8 - Motor-Operated and Solenoid-Operated Valves

 Equipment Description
 Fuel Pool CLG SYS ISO VLVF045 Solenoid

#### Photographs


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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL2- 003</u>	
Equipment ID No. <u>G41F045</u> Equip. Class <u>8 - Motor-Operated a</u>	nd Solenoid-Operated Valves
Equipment Description Filter Demin Inlet Valve	
Location: Bldg. <u>AB</u> Floor El. <u>185</u> Room, Area <u>1A527</u>	
Manufacturer, Model, Etc. (optional but recommended) <u>Valve: Henry Pratt Co</u>	., Actuator: Bettis Corp.
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and other comments.
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y∏ N⊠
2. 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?	
4. Is the anchorage free of visible cracks in the concrete near the	
anchors?	
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.)	
6 Based on the above anchorage evaluations, is the anchorage free of	
potentially adverse seismic conditions?	
N/A, in-line equipment	

<sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) SWEL2- 003	Status: YX N U
Equipment ID No. G41F045 Equip. Class <u>8 - Motor-Operated a</u>	and Solenoid-Operated Valves
Equipment Description Filter Demin Inlet Valve	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures? This equipment is not a soft target.	Y N 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? All overhead items are rigidly supported.	Y⊠ N∏ U∏ N/A∏
9. Do attached lines have adequate flexibility to avoid damage? Attached lines (tubing, flex conduit) have adequate flexibility.	Y⊠ N□ U□ N/A□
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX NI UI
Other Adverse Conditions	
<ol> <li>Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? One of the nut on flange connection for the valve G41F045 is missing. See Photo. (CR 2012-11306 initiated WR# 00285926)</li> </ol>	Y N N U
Comments	
None	
Evaluated by: Kyong S. (Jason) Pak Rang S. Com	Date: <u>10/3/2012</u>
Tori Robinson Jori Kobenson	10/3/2012
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Status: YX N U

#### Seismic Walkdown Checklist (SWC) SWEL2- 003

 Equipment ID No.
 G41F045
 Equip. Class<sup>1</sup> 8 - Motor-Operated and Solenoid-Operated Valves

 Equipment Description
 Filter Demin Inlet Valve

#### Photographs





Note: Missing nut on valve G41F045

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL2-004</u>		
Equipment ID No. <u>G41N012</u> Equip. Class <u>1 18 - Instrument Racks</u>		
Equipment Description Filter/Demineralizer Bypass Flow Transmitter		
Location: Bldg. <u>AB</u> Floor El. <u>185</u> Room, Area <u>1A527</u>		
Manufacturer, Model, Etc. (optional but recommended) Rosemount, 1151DP5C22T0001PB		
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		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N</li></ol>		
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>Y N□ U□ N/A□</li> <li>Flow Transmitter is mounted to TS 6x6 vertical post which is anchored to the floor using (4) 1/2" dia. anchor bolts.</li> </ol>		
No bent, broken, missing or loose hardware found.		
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?		
Floor is covered with epoxy coating; no visual indication of corrosion found		
<ol> <li>Is the anchorage free of visible cracks in the concrete near the YX N</li></ol>		
Floor is covered with epoxy coating; no visual indication of concrete crack found		
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>Y N U N/A</li> <li>N/A</li> <li>(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ol>		
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ol>		

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL2- 004</u>	Status: Y N N
Equipment ID No. <u>G41N012</u> Equip. Class <u>1 18 - Instrument Rack</u>	<u>s</u>
Equipment Description Filter/Demineralizer Bypass Flow Transmitter	
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures? All equipment/structures are rigidly supported.</li> </ol>	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (cable tray, light fixture, conduit, etc.) are rigidly supported.	Y⊠ N[] U[] N/A[]
9. Do attached lines have adequate flexibility to avoid damage? Flex conduit has been used for routing cable to the flow transmitter, and tubing attached to the transmitter has adequate flexibility.	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
Other Adverse Conditions	<u> </u>
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YN N U
·	
<u>Comments</u>	
None	
Evaluated by: Kyong S. (Jason) Pak Jung S. 02	Date: <u>10/3/2012</u>
Tori Robinson Jori Robenson	10/3/2012
ſ	Page 2 of 3

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Seismic Walkdown Checklist (SWC) <u>SWEL2- 0</u>	Status: Y⊠ N⊡ U⊡
Equipment ID No. <u>G41N012</u> Equip. Class <sup>1</sup>	18 - Instrument Racks
Equipment Description Filter/Demineralizer Bypass Flow	Transmitter

Photographs



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Status:	YΜ	N	U	
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Seismic Walkdown Checklist (SWC) <u>SWEL2- 005</u>	
Equipment ID No. <u>G41N007B</u> Equip. Class <u>1 18 - Instrament Rack</u>	
Equipment Description FUEL POOL PUMP C001B DISCH PRESSURE LOW S	WITCH
Location: Bldg. <u>AB</u> Floor El. <u>166</u> Room, Area <u>1A428</u>	
Manufacturer, Model, Etc. (optional but recommended) BARKSDALE CONTR	OL DIV,B2T-A12SS
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and other comments.
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y NX
2. Is the anchorage free of bent, broken, missing or loose hardware? Item is mounted on floor mounted tube steel. The tube steel is mounted on a base plate.	Y⊠ N□ U□ N/A□
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Y⊠ N□ U□ N/A□
No oxidation all anchor bolts are coated	
4. Is the anchorage free of visible cracks in the concrete near the anchors? All base plates and floor anchorage is coated no visual cracks.	Y⊠ N□ U□ N/A□
<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>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL2- 005</u>	Status: YX N U
Equipment ID No. <u>G41N007B</u> Equip. Class <u>18 - Instrament Rack</u>	
Equipment Description FUEL POOL PUMP C001B DISCH PRESSURE LOW	<u>SWITCH</u>
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures? Item is in open area.</li> </ol>	Y 🛛 N 🗍 U 🗍 N/A 🗍
<ol> <li>Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead raceways are supported.</li> </ol>	YX NI UI N/AI
9. Do attached lines have adequate flexibility to avoid damage? Flex conduit is connected to item.	Y⊠ N∏ U∏ N/A∏
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?	YØND UD
<u>Comments</u>	
Evaluated by: <u>Chase Wharton</u> Chase Whenton	Date: <u>9/26/2012</u> <u>9/26/2012</u>
$\nu$ $\epsilon$	Page <b>2</b> of <b>3</b>

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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL2- 005

Equipment ID No. <u>G41N007B</u> Equip. Class<sup>1</sup> <u>18 - Instrament Rack</u>

Equipment Description FUEL POOL PUMP C001B DISCH PRESSURE LOW SWITCH

### Photographs



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Status: Y N U		
Equipment ID No. <u>G41N011</u> Equip. Class <sup>1</sup> <u>18 - Instrument Racks</u>		
Equipment Description Upper Containment Pool Retrun Flow Transmitter		
Location: Bldg. <u>AB</u> Floor El. <u>185</u> Room, Area <u>1A527</u>		
Manufacturer, Model, Etc. (optional but recommended) <u>Rosemount, 1152DP5E22T0280PB</u>		
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		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N</li></ol>		
2. Is the anchorage free of bent, broken, missing or loose hardware? Y NX U N/A		
Flow Transmitter is mounted to TS 6x6 vertical post which is anchored to the floor using (4) 1/2" dia. anchor bolts.		
One of the bolt on the flow transmitter mounting bracket is not fully engaged. See photo. (CR 2012-11307 initiated WR# 00285927)		
<ol> <li>Is the anchorage free of corrosion that is more than mild surface</li> <li>Y N U N/A</li> <li>N/A</li> </ol>		
Floor is covered with epoxy coating; no visual indication of corrosion found		
<ol> <li>Is the anchorage free of visible cracks in the concrete near the Y∑ N□ U□ N/A□ anchors?</li> </ol>		
Floor is covered with epoxy coating; no visual indication of concrete crack found		
5. Is the anchorage configuration consistent with plant documentation? Y N U N/A N/A (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)		
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y N∑ U Potentially adverse seismic conditions?</li> <li>See question number 2.</li> </ol>		

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL2- 006</u>	Status: Y⊠ N∐ U∐
Equipment ID No. <u>G41N011</u> Equip. Class: <u>18 - Instrument Rack</u>	s
Equipment Description Upper Containment Pool Retrun Flow Transmitter	· · · · · · · · · · · · · · · · · · ·
Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? All equipment/structures are rigidly supported.	
<ol> <li>Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead items (cable tray, light fixture, conduit, etc.) are rigidly supported.</li> </ol>	Y⊠ N∏ U∏ N/A∏
9. Do attached lines have adequate flexibility to avoid damage? Flex conduit has been used for routing cable to the flow transmitter, and tubing attached to the transmitter has adequate flexibility.	Y⊠ N∏ U∏ N/A∏
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y⊠ N□ U□
<u>Other Adverse Conditions</u> 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	
Comments None	
Evaluated by: Kyong S. (Jason) Pak ryong S. Or Tori Robinson WW Robinson	Date: <u>10/3/2012</u> <u>10/3/2012</u> Page <b>2</b> of <b>3</b>

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Status: YX N U

#### Seismic Walkdown Checklist (SWC) SWEL2- 006

 Equipment ID No.
 G41N011
 Equip. Class<sup>1</sup> 18 - Instrument Racks

 Equipment Description
 Upper Containment Pool Retrun Flow Transmitter

### Photographs









Note: General view of the overhead area

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL2-007</u>				
Equipment ID No. <u>G41N018B</u> Equip. Class <u>1 18 - Instrament Rack</u>				
Equipment Description FUEL POOL PUMP B DISCH PRESSURE TRANSMITTER				
Location: Bldg. <u>AB</u> Floor El. <u>166</u> Room, Area <u>1A428</u>				
Manufacturer, Model, Etc. (optional but recommended) <u>ROSEMOUNT.1151GP7A22T0001PB</u>				
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				
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>				
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>Y⊠ N□ U□ N/A□</li> <li>Item is mounted on floor mounted tube steel. The tube steel is mounted on a base plate.</li> </ol>				
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?				
No oxidation all anchor bolts are coated				
<ul> <li>4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors?</li> <li>All base plates and floor anchorage is coated no visual cracks</li> </ul>				
5. Is the anchorage configuration consistent with plant documentation? YX N UNA (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)				
Bracket anchorage is consistent with vendor drawings. Base plate anchor bolts are 9" OC with 1.5" edge distance. Consistent with FSK-I- 0113G-808-V				
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ol>				

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL2- 007</u>	Status: Y N U
Equipment ID No. <u>G41N018B</u> Equip. Classi <u>18 - Instrament Rack</u>	(
Equipment Description FUEL POOL PUMP B DISCH PRESSURE TRANSMIT	TER
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures? <i>Item is in open area.</i>	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? All overhead raceways are supported.	
9. Do attached lines have adequate flexibility to avoid damage? Flex conduit is connected to item.	
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?	
<u>Comments</u> None	
Class	
Evaluated by: <u>Chase Wharton</u>	Date: <u>9/26/2012</u> <u>9/26/2012</u>
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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL2- 007

Equipment ID No. <u>G41N018B</u> Equip. Class<sup>1</sup> <u>18 - Instrament Rack</u>

Equipment Description FUEL POOL PUMP B DISCH PRESSURE TRANSMITTER

Photographs



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Seismic Walkdown Checklist (SWC) <u>SWEL2- 008</u>
Equipment ID No. <u>G41P002</u> Equip. Class <sup>1</sup> <u>20 - Instrumentation and Contol Panels</u>
Equipment Description DIV 1 EMERGENCY SAFEGUARDSYSTEM SM CONTROL PANEL
Location: Bldg. <u>AB</u> Floor El. <u>166</u> Room, Area <u>1A432</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y N∑ of the 50% of SWEL items requiring such verification)?</li> </ol>
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N⊡ U⊡ N/A⊡ Panel is welded to steel plate
<ol> <li>Is the anchorage free of corrosion that is more than mild surface</li> <li>Y⊠ N□ U□ N/A□ oxidation?</li> <li>anchorage is coated</li> </ol>
<ul> <li>4. Is the anchorage free of visible cracks in the concrete near the Y N U N/A NA</li> <li>Anchored to steel</li> </ul>
<ol> <li>Is the anchorage configuration consistent with plant documentation?</li> <li>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.)</li> </ol>
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ol>

<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL2- 008</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>G41P002</u> Equip. Class <u>20 - Instrumentation</u>	and Contol Panels
Equipment Description DIV 1 EMERGENCY SAFEGUARDSYSTEM SM CON	TROL PANEL
Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? Item has no soft targets	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse selsmic interaction effects?	YX NO UO
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□
Comments	
None	
Evaluated by: <u>Chase Wharton Mhh</u>	Date: <u>10/10/2012</u>
Fred Hopkins Justice Hopky	10/10/2012
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Status: YX N U

### Seismic Walkdown Checklist (SWC) SWEL2- 008

Equipment ID No. <u>G41P002</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Contol Panels</u>

Equipment Description DIV 1 EMERGENCY SAFEGUARDSYSTEM SM CONTROL PANEL

# Photographs



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Status: YX N U

# Seismic Walkdown Checklist (SWC) SWEL2- 008

Equipment ID No. <u>G41P002</u> Equip. Class<sup>1</sup> <u>20 - Instrumentation and Contol Panels</u>

Equipment Description DIV 1 EMERGENCY SAFEGUARDSYSTEM SM CONTROL PANEL



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Status: YX N U

Status. TAIN Status.
Equipment ID No. <u>G41A001</u> Equip. Class <sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>
Equipment Description Fuel Pool Drain Tank
Location: Bldg. <u>AB</u> Floor El. <u>191</u> Room, Area <u>1A537</u>
Manufacturer, Model, Etc. (optional but recommended) <u>Buffalo Tank</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
Fuel pool drain tank is support by two heavy duty saddles. Each saddle is anchor to the floor using (4) 1 1/8" dia. anchor bolts. See photos.
No bent, broken, missing or loose hardware found.
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?
Floor is covered with epoxy coating; no visual indication of corrosion found
4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors?
Floor is covered with epoxy coating; no visual indication of concrete crack found
5. Is the anchorage configuration consistent with plant documentation? YX N UNA (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Anchorage was checked against vendor drawings L-3264A, SK-F2- 2009NC-4A, & SK-F2-2009NC-5A in QP 62.00, and the configuration shown on the drawings matched the field condition.
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of YX NUU</li> <li>volume to the potentially adverse seismic conditions?</li> </ol>

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<sup>&</sup>lt;sup>1</sup> Enter the equipment class <u>name</u> from EPRI 1025286 Appendix B: Classes of Equipment.

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Seismic Walkdown Checklist (SWC) <u>SWEL2- 009</u>	Status: YX N U			
Equipment ID No. <u>G41A001</u> Equip. Class <sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>				
Equipment Description Fuel Pool Drain Tank				
Interaction Effects				
7. Are soft targets free from impact by nearby equipment or structures? This equipment is not a soft target.	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? All overhead items (piping/pipe supports) are rigidly supported.	YX N U N/A			
9. Do attached lines have adequate flexibility to avoid damage? Piping attached to the tank have adequate flexibility.	Y⊠ N□ U□ N/A□			
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YN 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?	YM NO UO			
Comments				
None				
Evaluated by: Kyong S. (Jason) Pak	Date: <u>10/3/2012</u>			
Tori Robinson AU Jolunson	10/3/2012			
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Status: YX N U

## Seismic Walkdown Checklist (SWC) SWEL2- 009

Equipment ID No. <u>G41A001</u> Equip. Class<sup>1</sup> <u>21 - Tanks and Heat Exchangers</u>

Equipment Description Fuel Pool Drain Tank

### Photographs

