ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 1 of 5	
Seismic Walkdown Checklist (SWC) SWEL1- 089	Status: Y⊠ N⊟ U⊟
Equipment ID No. EJ-1051 Equip. Class 20, INSTRUMENTA	TION AND CONTROL PANELS
Equipment Description AUX FEEDWATER CONTROLS	
Location: Bldg. AUX Floor El. 607 Room, Area 223	
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.	the results of judgments and
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?  The equipment anchorage consists of 4" intermittent fillet welds to structural steel angles which are embedded in a concrete pedestal on the concrete floor.	Y⊠ N□ U□ N/A□
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>No corrosion observed.</li> </ol>	Y⊠ N□ U□ N/A□ .:
Is the anchorage free of visible cracks in the concrete near the anchors?  There were no cracks observed in the concrete pedestal or floor.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6	ISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 5	
Seismic Walkdown Checklist (SWC)SWEL1089	Status: Y⊠ N□ U□
Equipment ID No. EJ-1051 Equip. Class <sup>1</sup> 20, INSTRUMENT	TATION AND CONTROL PANELS
Equipment Description AUX FEEDWATER CONTROLS	
<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
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?  A book is hanging from the inside of the cabinet which could potentials interact with interior wiring and components. Further evaluation is required and licensing basis evaluation, LB-19, has been created. CF	-
<ul> <li>PLP-2012-06754 has been created to remove item.</li> <li>8. Are overhead equipment, distribution systems, ceiling tiles and lighting and masonry block walls not likely to collapse onto the equipment?     Fluorescent light fixtures overhead. Light fixtures hanging from chains with S hooks. Light fixtures judged not to come off S hooks due to vertical seismic acceleration &lt; 1.0g. Some of the hooks are crimped and there is also large cable attached at top of light providing stiffness in the vertical direction preventing upwards deflection.</li> </ul>	g, Y⊠ N□ U□ N/A□
<ol> <li>Do attached lines have adequate flexibility to avoid damage? Flexible cables are feeding through the top of the cabinet.</li> </ol>	Y⊠ N□ U□ N/A□
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?  A book is hanging from the inside of the cabinet which could potentially interact with interior wiring and components. Further evaluation is required and licensing basis evaluation, LB-19, has been created. CF PLP-2012-06754 has been created to remove item.	

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 5	
Seismic Walkdown Checklist (SWC) SWEL1- 089	Status: Y⊠ N□ U□
Equipment ID No. <u>EJ-1051</u> Equip. Class <sup>1</sup> <u>20, INSTRUMI</u>	ENTATION AND CONTROL PANELS
Equipment Description AUX FEEDWATER CONTROLS	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that co adversely affect the safety functions of the equipment?  There is an adjacent funnel and drip line to drain nearby. No wate drips observed, judged to be okay for seismic induced flooding concerns.  Comments (Additional pages may be added as necessary)	<del>-</del>
Evaluated by: Kevin Bessell Li-Bal	Date: <u>10/15/2012</u>
Evaluated by: Kevin Bessell Lin Bank	<u>10/15/2012</u>

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

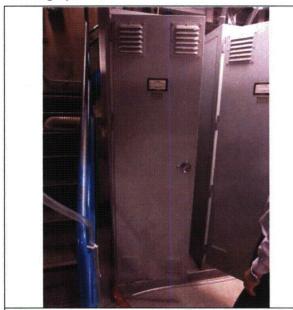
Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 089

Equipment ID No. <u>EJ-1051</u> Equip. Class<sup>1</sup> <u>20, INSTRUMENTATION AND CONTROL PANELS</u>

Equipment Description AUX FEEDWATER CONTROLS

# **Photographs**



Note: Equipment.



Note: Equipment anchorage consisting of intermittent fillet welds to embedded steel.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 5 of 5	
	Status: Y⊠ N⊟ U⊟
Seismic Walkdown Checklist (SWC) <u>SWEL1- 089</u>	<del>_</del>
Equipment ID No. <u>EJ-1051</u> Equip. Class <sup>1</sup> <u>20,</u>	INSTRUMENTATION AND CONTROL PANELS
Equipment Description <u>AUX FEEDWATER CONTROLS</u>	
Note: Inside of equipment and book/manual noted on inside of door providing a possible seismic interaction with interior wiring and components.	<b>&gt;:</b>

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 090</u>	
Equipment ID No. <u>EJ-1052</u> Equip. Class <sup>1</sup> <u>20, INSTRUMENTA</u>	TION AND CONTROL PANELS
Equipment Description AUX FEEWATER RELAY CONTROLS	
Location: Bldg. AUX Floor El. 607 Room, Area 223	
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 the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of the space is provided the space is provid	the results of judgments and
<u>Anchorage</u>	
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?  The equipment anchorage consists of 4" intermittent fillet welds to structural steel angles which are embedded in a concrete pedestal on the concrete floor.	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?      No corrosion observed.	Y⊠ N□ U□ N/A□
Is the anchorage free of visible cracks in the concrete near the anchors?  There were no cracks observed in the concrete pedestal or floor.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 090	Status: Y⊠ N□ U□
Equipment ID No. <u>EJ-1052</u> Equip. Class <sup>1</sup> <u>20, INSTRUME</u>	NTATION AND CONTROL PANELS
Equipment Description AUX FEEWATER RELAY CONTROLS	
<ol> <li>Is the anchorage configuration consistent with plant documentation (Note: This question only applies if the item is one of the 50% for what an anchorage configuration verification is required.)</li> </ol>	
Based on the above anchorage evaluations, is the anchorage free option potentially adverse seismic conditions?	of Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures	? Y⊠ N□ U□ N/A□
Are overhead equipment, distribution systems, ceiling tiles and light	ing, Y⊠ N□ U□ N/A□
and masonry block walls not likely to collapse onto the equipment? Fluorescent light fixtures overhead. Light fixtures hanging from chawith S hooks. Light fixtures judged not to come off S hooks due to vertical seismic acceleration < 1.0g. Some of the hooks are crimpe and there is also large cable attached at top of light providing stiffned in the control of the second statement of the s	d
<ul><li>in the vertical direction preventing upwards deflection.</li><li>9. Do attached lines have adequate flexibility to avoid damage?</li></ul>	Y⊠ N□ U□ N/A□
Flexible cables are feeding through the top of the cabinet.	
10. Based on the above seismic interaction evaluations, is equipment for of potentially adverse seismic interaction effects?	ree Y⊠ N□ U□

	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 090</u>	
Equipment ID No. <u>EJ-1052</u> Equip. Class <sup>1</sup> <u>20, INSTRUME</u>	NTATION AND CONTROL PANELS
Equipment Description AUX FEEWATER RELAY CONTROLS	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that cou adversely affect the safety functions of the equipment?	ld Y⊠ N□ U□
There is an adjacent funnel and drip line to drain nearby. No water drips observed, judged to be okay for seismic induced flooding concerns.	or
Comments (Additional pages may be added as necessary)	
	Date: <u>10/15/2012</u>

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

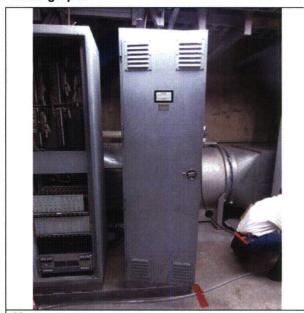
Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 090

Equipment ID No. <u>EJ-1052</u> Equip. Class<sup>1</sup> <u>20, INSTRUMENTATION AND CONTROL PANELS</u>

Equipment Description AUX FEEWATER RELAY CONTROLS

## **Photographs**



Note: Equipment.



Note: Inside of equipment.

ATTACHMENT 9.6	Se	ISMIC WALKDOWN CHECKLIST FORI
Sheet 1 of 4		
Seismic Walkdown Checklist (SWC)	SWFI 1- 091	Status: Y⊠ N□ U□
Equipment ID No. <u>EJ-9400</u>		ATION AND CONTROL PANELS
Equipment Description BUS 1-C UNDER	VOLTAGE RELAYS	
Location: Bldg. <u>AUX</u> Floor El. <u>59</u>	00 Room, Area <u>116A</u>	
Manufacturer, Model, Etc. (optional but rec	ommended)	
Instructions for Completing Checklist		
This checklist may be used to document the SWEL. The space below each of the follow findings. Additional space is provided at the	ring questions may be used to reco	rd the results of judgments and
<u>Anchorage</u>		
<ol> <li>Is the anchorage configuration verified of the 50% of SWEL items requiring</li> </ol>		e Y⊠ N□
Is the anchorage free of bent, broke     Equipment is anchored with (4) exp	· ·	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion the oxidation?     There is no corrosion. Anchors are		Y⊠ N□ U□ N/A□
<ol> <li>Is the anchorage free of visible crac anchors?</li> <li>The equipment is anchored to a cor observed.</li> </ol>		Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	Status: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC) <u>SWEL1- 091</u>	
Equipment ID No. <u>EJ-9400</u> Equip. Class <sup>1</sup> <u>20, INSTRUMENTA</u>	TION AND CONTROL PANELS
Equipment Description <u>BUS 1-C UNDER VOLTAGE RELAYS</u>	
<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> <li>Anchorage configuration is consistent with SEWS Sh. 7 of 9 and Sh. 3 of 9.</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□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
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□
Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y⊠ N□ U□·

SEISMIC WALKDOWN CHECKLIST FORM
Status: Y⊠ N⊟ U⊟
TRUMENTATION AND CONTROL PANELS
that could Y⊠ N□ U□
Date: 10/3/2012
10/3/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

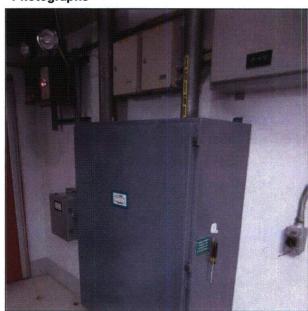
Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 091

Equipment ID No. <u>EJ-9400</u> Equip. Class<sup>1</sup> <u>20, INSTRUMENTATION AND CONTROL PANELS</u>

Equipment Description BUS 1-C UNDER VOLTAGE RELAYS

## **Photographs**



Note: Equipment.



Note: Equipment.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) SWEL1- 092	
Equipment ID No. <u>EJ-9401</u> Equip. Class <sup>1</sup> <u>20, INSTRU</u>	MENTATION AND CONTROL PANELS
Equipment Description BUS 1-D UNDERVOLTAGE RELAYS	
Location: Bldg. AUX Floor El. 607 Room, Area 223	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Wall SWEL. The space below each of the following questions may be used t findings. Additional space is provided at the end of this checklist for doc	to record the results of judgments and
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the it of the 50% of SWEL items requiring such verification)?</li> </ol>	em one Y□ N⊠
2. Is the anchorage free of bent, broken, missing or loose hardward. The equipment is anchored to a concrete wall with 2 expansion top and bottom of panel for a total of 4 anchors. The anchors are attached through tabs that extend from back of the panel.	anchors
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>There is no corrosion observed.</li> </ol>	Y⊠ N□ U□ N/A□
п	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y⊠ N□ U□ N/A□
The equipment is anchored to a concrete wall and there are no observed in the wall.	cracks

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

ATTACHMENT 9.6 SEISI	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 092</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>EJ-9401</u> Equip. Class <sup>1</sup> <u>20, INSTRUMENTA</u>	TION AND CONTROL PANELS
Equipment Description BUS 1-D UNDERVOLTAGE RELAYS	
<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⊠
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
<ul><li>Interaction Effects</li><li>7. Are soft targets free from impact by nearby equipment or structures?</li></ul>	Y⊠ N□ U□ N/A□
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□
<ol> <li>Do attached lines have adequate flexibility to avoid damage?         Conduit is attached to the top of the box and bends around and is supported from the wall.     </li> </ol>	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□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 092	Status: Y⊠ N□ U□
Equipment ID No. <u>EJ-9401</u> Equip. Class <sup>1</sup> <u>20, INSTRUME</u>	NTATION AND CONTROL PANELS
Equipment Description <u>BUS 1-D UNDERVOLTAGE RELAYS</u>	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that cou adversely affect the safety functions of the equipment?	ıld Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell Lin Bull  John Kao  John Kao	Date: <u>10/15/2012</u>
John Kao	10/45/2012
JUIII Nau 🔾	10/15/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

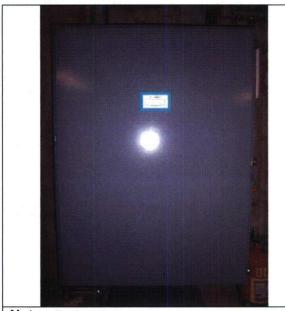
Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 092

Equipment ID No. <u>EJ-9401</u> Equip. Class<sup>1</sup> <u>20, INSTRUMENTATION AND CONTROL PANELS</u>

Equipment Description BUS 1-D UNDERVOLTAGE RELAYS

### **Photographs**



Note: Equipment.



Note: Inside of equipment.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORI
Sheet 1 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 093	Status: Y□ N□ U⊠
· /	NTATION AND CONTROL PANELS
Equipment Description 72-02 BREAKER BOX	
Location: Bldg. AUX Floor El. 607 Room, Area 225	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdow SWEL. The space below each of the following questions may be used to re findings. Additional space is provided at the end of this checklist for documents.	cord the results of judgments and
<u>Anchorage</u>	
1. Is the anchorage configuration verification required (i.e., is the item of the 50% of SWEL items requiring such verification)?	one Y⊡ N⊠
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The equipment is anchored with 3 anchors along the top and bottom the panel. The equipment is anchored to a block wall.     </li> </ol>	Y⊠ N□ U□ N/A□ n of
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  The anchors are stainless steel and no corrosion is noted.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors? The equipment is anchored to a block wall and no cracks are observed the block wall is seismically qualified, C107.17/Q, per drawing C-10 Sh. 1, Rev. 28.	

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

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC)SWEL1093	Status: Y☐ N☐ U⊠
Equipment ID No. EJL-422 Equip. Class <sup>1</sup> 20, INSTRUM	ENTATION AND CONTROL PANELS
Equipment Description 72-02 BREAKER BOX	
<ol> <li>Is the anchorage configuration consistent with plant documentation (Note: This question only applies if the item is one of the 50% for van anchorage configuration verification is required.)</li> </ol>	
Based on the above anchorage evaluations, is the anchorage free potentially adverse seismic conditions?	of Y⊠ N□ U□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structure	es? Y⊠ N□ U□ N/A□
<ul> <li>8. Are overhead equipment, distribution systems, ceiling tiles and light and masonry block walls not likely to collapse onto the equipment. The component is mounted to a seismically qualified block wall as noted in item #4 above. There is also a block wall to the east of the equipment. This wall is seismically qualified, C107.16/Q, per draw C-107, Sh.1, Rev. 28.</li> <li>Overhead crane has the potential to bang into supports for conduit feeding the panel. The crane beam is judged not to have a signific interaction with the conduits due to the interference of the support crane is judged not to cause damage to the support to render the conduit inoperable; therefore there are no interaction concerns.</li> <li>9. Do attached lines have adequate flexibility to avoid damage?</li> </ul>	ne ving t cant
Based on the above seismic interaction evaluations, is equipment of potentially adverse seismic interaction effects?	free Y⊠ N□ U□

ATTACHMENT 9.6	SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4		
Seismic Walkdown Checklist (SWC)	SWEL1- 093	Status: Y☐ N☐ U⊠
Equipment ID No. EJL-422	Equip. Class <sup>1</sup> 20, INSTRUMENTA	TION AND CONTROL PANELS
Equipment Description 72-02 BREAKER E	BOX	
Other Adverse Conditions		
<ol> <li>Have you looked for and found no o adversely affect the safety functions Could not inspect inside of panel. For a panel of the panel of</li></ol>	of the equipment?	Y□ N□ U⊠
Comments (Additional pages may be adde	ed as necessary)	
Evaluated by: Kevin Bessell  John Kao	Bul	Date: 10/9/2012
John Kao	a.o	10/9/2012

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 4 of 4  Seismic Walkdown Checklist (SWC) SWEL1- 09  Equipment ID No. EJL-422 Equip. Class <sup>1</sup>	
Equipment Description 72-02 BREAKER BOX	
Photographs	
Note: Equipment.	lote:
Note: Equipment.	iote.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 094	Status: Y□ N□ U⊠
• • • • • • • • • • • • • • • • • • • •	
Equipment ID No. <u>EJL-423</u> Equip. Class <sup>1</sup> <u>20, INSTRUME</u>	NTATION AND CONTROL PANELS
Equipment Description 72-01 BREAKER BOX	
Location: Bldg. AUX Floor El. 607 Room, Area 225A	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdo SWEL. The space below each of the following questions may be used to refindings. Additional space is provided at the end of this checklist for document	ecord the results of judgments and
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item of the 50% of SWEL items requiring such verification)?</li> </ol>	one Y⊠ N□
Is the anchorage free of bent, broken, missing or loose hardware?  Equipment anchorage consists of 3 anchors top and bottom of pane anchored to concrete wall.	Y⊠ N□ U□ N/A□ e/
Is the anchorage free of corrosion that is more than mild surface oxidation?     Stainless steel anchors noted with no corrosion.	Y⊠ N□ U□ N/A□
Is the anchorage free of visible cracks in the concrete near the anchors?  Panel is anchored to a concrete wall and there are no cracks observed.	Y⊠ N□ U□ N/A□
r and its anchored to a condition wall and there are no cracks obser	vou.

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

ATTACHMENT 9.6	SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4 Seismic Walkdown Checklist (SWC)	SWEL1. 004	Status: Y□ N□ U⊠
	Equip. Class <sup>1</sup> 20, INSTRUMENTA	TION AND CONTROL PANELS
Equipment Description 72-01 BREAKER	BOX	
5. Is the anchorage configuration cons (Note: This question only applies if t an anchorage configuration verificat The equipment anchorage configuration to through 7 of 10.	istent with plant documentation? he item is one of the 50% for which ion is required.)	Y⊠ N□ U□ N/A□
Based on the above anchorage evaluation potentially adverse seismic condition		Y⊠ N□ U□
Interaction Effects		
7. Are soft targets free from impact by	nearby equipment or structures?	Y⊠ N□ U□ N/A□
8. Are overhead equipment, distributio and masonry block walls not likely to Block wall on east side of the room. per drawing C-107, Sh. 1, Rev. 28.	collapse onto the equipment?	Y⊠ N□ U□ N/A□
9. Do attached lines have adequate fle	exibility to avoid damage?	Y⊠ N□ U□ N/A□
Based on the above seismic interac     of potentially adverse seismic intera		Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
	Status: Y☐ N☐ U⊠
Seismic Walkdown Checklist (SWC) SWEL1- 094	<u>1</u>
Equipment ID No. <u>EJL-423</u> Equip. Class <sup>1</sup> 2	0, INSTRUMENTATION AND CONTROL PANELS
Equipment Description 72-01 BREAKER BOX	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conc adversely affect the safety functions of the equipmen Internal inspection of panel has been deferred due to equipment component.	? — — — — — — — — — — — — — — — — — — —
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell L. B.	Date: <u>10/9/2012</u>
Evaluated by: Kevin Bessell Kao  John Kao	<u>10/9/2012</u>

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Seismic Walkdown Checklist (SWC) SWEL1- 094  Equipment ID No. EJL-423 Equip. Class 20, INSTI	Status: Y N U
Equipment Description 72-01 BREAKER BOX	
Photographs	
Note: Equipment. Note:	

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FOR
Sheet 1 of 4	
	Status: Y☐ N☐ U⊠
Seismic Walkdown Checklist (SWC) <u>SWE</u>	L1- 095
Equipment ID No. <u>42-1/RPS</u> Equip. <u>PANEL</u>	Class <sup>1</sup> _20 - INSTRUMENTATION AND CONTROL .S
Equipment Description CONTROL ROD CLUTCH	BREAKER
Location: Bldg. <u>AUX</u> Floor El. <u>607</u>	Room, Area 224
Manufacturer, Model, Etc. (optional but recommend	led)
Instructions for Completing Checklist	
This checklist may be used to document the results SWEL. The space below each of the following ques findings. Additional space is provided at the end of	of the Seismic Walkdown of an item of equipment on the stions may be used to record the results of judgments and this checklist for documenting other comments.
Anchorage	
<ol> <li>Is the anchorage configuration verification re of the 50% of SWEL items requiring such verification.</li> </ol>	
Is the anchorage free of bent, broken, missi     Could not open equipment to inspect ancho     sensitive.	<del>-</del>
Is the anchorage free of corrosion that is mookidation?      Could not open equipment to inspect anchows sensitive.	
<ol> <li>Is the anchorage free of visible cracks in the anchors?</li> <li>Could not open equipment to inspect ancho sensitive.</li> </ol>	

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

ATTACHMENT 9.6	SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4		
		Status: Y☐ N☐ U⊠
Seismic Walkdown Checklist (SWC)	SWEL1- 095	•
Equipment ID No. 42-1/RPS	Equip. Class <sup>1</sup> <u>20 - INSTRUMENTA</u> PANELS	ATION AND CONTROL
Equipment Description CONTROL ROD C	LUTCH BREAKER	
<ol> <li>Is the anchorage configuration consi (Note: This question only applies if the an anchorage configuration verification Could not open equipment to inspect sensitive.</li> </ol>	ne item is one of the 50% for which on is required.)	Y□ N□ U⊠ N/A□ -
<ol><li>Based on the above anchorage eval potentially adverse seismic condition</li></ol>		Y□ N□ U⊠
Could not open equipment to inspec sensitive.	t anchorage because it is plant	
Interaction Effects		
7. Are soft targets free from impact by There are junction boxes mounted a	- • •	Y⊠ N□ U□ N/A□
8. Are overhead equipment, distribution and masonry block walls not likely to There is a nearby qualified block wall.  1.	collapse onto the equipment?	Y⊠ N□ U□ N/A□
Do attached lines have adequate fle     Attached conduits have bends giving		Y⊠ N□ U□ N/A□
Based on the above seismic interact of potentially adverse seismic interact.		Y⊠ N□ U□

ATTACHMENT 9.6		SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4		
		Status: Y□ N□ U⊠
Seismic Walkdown Checklist (S	WC) <u>SWEL1- 095</u>	
Equipment ID No. 42-1/RPS	Equip. Class <sup>1</sup> <u>20 - INSTRUME</u> PANELS	NTATION AND CONTROL
Equipment Description CONTROL F	ROD CLUTCH BREAKER	erica e de la companya del companya de la companya del companya de la companya de
Other Adverse Conditions		
<ol> <li>Have you looked for and found adversely affect the safety fun</li> </ol>	d no other seismic conditions that coul ctions of the equipment?	d Y⊠ N□ U□
Comments (Additional pages may be	e added as necessary)	
Evaluated by: Alex Smerch	lan	Date: October 17th, 2012
Poul	- X lein	
Paul Klein 0		October 17th, 2012

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 4 of 4 Seismic Walkdown Checklist (SWC) <u>SWEL1-</u>	Status: Y☐ N☐ U⊠
Equipment ID No. 42-1/RPS Equip. Class PANELS	ss <sup>1</sup> _20 - INSTRUMENTATION AND CONTROL
Equipment Description CONTROL ROD CLUTCH BR	EAKER
Photographs	
WOTICE	
Note: 42-1/RPS	Note:

ATTACHMENT 9.6 SEI	SMIC WALKDOWN CHECKLIST FOR
Sheet 1 of 5	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 096</u>	
Equipment ID No. <u>E-54A</u> Equip. Class 1 <u>21 - TANKS AND H</u>	EAT EXCHANGERS
Equipment Description COMPONENT COOLING WATER HEAT EXCHANGE	R
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>123</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 recorfindings. Additional space is provided at the end of this checklist for documential space.	d the results of judgments and
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?  There were 8 bolts connected the feet of the heat exchanger to the top of E-54B.	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?      There was no corrosion as all the bolts were painted.	Y⊠ N□ U□ N/A□
Is the anchorage free of visible cracks in the concrete near the anchors?  Heat exchanger is anchored to top of E-54B.	Y□ N□ U□ N/A⊠

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

TACHMENT 9.6 SEISMIC WALKDOWN CHECKLIST	
Sheet 2 of 5	•
Seismic Walkdown Checklist (SWC) <u>SWEL1- 096</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>E-54A</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND HE</u>	EAT EXCHANGERS
Equipment Description COMPONENT COOLING WATER HEAT EXCHANGE	R
<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> <li>Anchorage was verified using M-14 Sheet 2.</li> </ol>	Y⊠ N□ U□ N/A□
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?  The heat exchanger 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?  Nearby block wall qualified by C-104.	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	Y⊠ N□ U□
of potentially adverse seismic interaction effects?	· 🖾 11 🗆 🗆

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 5	
	Status: Y⊠ N☐ U☐
Seismic Walkdown Checklist (SWC) SWEL1- 096	
Equipment ID No. <u>E-54A</u> Equip. Class <sup>1</sup> <u>21 - TANKS</u>	AND HEAT EXCHANGERS
Equipment Description COMPONENT COOLING WATER HEAT EXC	HANGER
Other Adverse Conditions	12. 70
11. Have you looked for and found no other seismic conditions that adversely affect the safety functions of the equipment?	could Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Evaluated by: Alex Smerch Mer	Date: <u>10-12-2012</u>
Poul & Llain	
Paul Klein - 0	<u>10-12-2012</u>

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 096

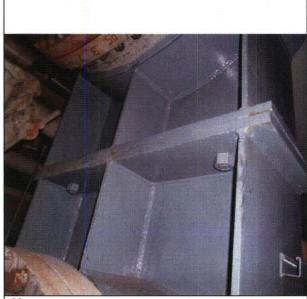
Equipment ID No. <u>E-54A</u> Equip. Class<sup>1</sup> <u>21 - TANKS AND HEAT EXCHANGERS</u>

Equipment Description COMPONENT COOLING WATER HEAT EXCHANGER

## **Photographs**



Note: E-54A



Note: Anchorage

Seismic Walkdown Checklist (SWC)

Seismic Walkdown Checklist (SWC)

Seismic Walkdown Checklist (SWC)

Swell- 096

Equipment ID No. E-54A

Equip. Class¹ 21 - TANKS AND HEAT EXCHANGERS

Equipment Description COMPONENT COOLING WATER HEAT EXCHANGER

Note: Additional Anchorage

Note: Additional Anchorage

ATTACHMENT 9.6 SEISM	MIC WALKDOWN CHECKLIST FORM
Sheet 1 of 5	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) SWEL1- 097	
Equipment ID No. <u>E-54B</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND HE</u>	AT EXCHANGERS
Equipment Description COMPONENT COOLING HEAT EXCHANGER	
Location: Bldg. <u>AUX BLDG</u> Floor El. <u>590</u> Room, Area <u>123</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	the results of judgments and
<u>Anchorage</u>	
<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?  Two bolts on the second pedestal from the north have less than full thread engagement. These bolts have not been deemed a potentially adverse seismic consideration because there was at most 1 thread not fully engaged which will not limit a 1-1/8" anchor bolt as its failure mode will still be limited by direct tensile yielding at this point (therefore not decreasing its capacity).	Y⊠ N□ U□ N/A□
There are 16 bolts anchoring the feet of the heat exchanger to 4 separate pedestals extending from the floor slab.	
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Y⊠ N□ U□ N/A□
The majority of the bolts were painted with no signs of corrosion and a few had some slight mild surface oxidation.	
4. Is the anchorage free of visible cracks in the concrete near the anchors?  There are 4 concrete pedestals supporting the heat exchanger. They have 3 instances of slight surface chipping of the concrete that is of no structural concern.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 5	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 097</u>	Status: Y⊠ N☐ U☐
Equipment ID No. <u>E-54B</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND HE</u>	EAT EXCHANGERS
Equipment Description COMPONENT COOLING HEAT EXCHANGER	
<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> <li>The anchorage configuration has been verified using Dwg. M-14 Sheet 1.</li> </ol>	Y⊠ N□ U□ N/A□
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects	- 984
7. Are soft targets free from impact by nearby equipment or structures?  The heat exchanger is not considered 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?  There is a block wall nearby that is qualified by C-104	Y⊠ N□ ·U□ N/A□
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 5	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) SWEL1- 097	
Equipment ID No. <u>E-54B</u> Equip. Class <sup>1</sup> <u>21 - TANKS</u>	AND HEAT EXCHANGERS
Equipment Description COMPONENT COOLING HEAT EXCHANGER	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that of adversely affect the safety functions of the equipment?	could Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Evaluated by: Alex Smerch Muc	Date: <u>10-12-2012</u>
Evaluated by: Alex Smerch Mer Lain	
Paul Klein	<u>10-12-2012</u>

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 097

Equipment ID No. <u>E-54B</u> Equip. Class<sup>1</sup> <u>21 - TANKS AND HEAT EXCHANGERS</u>

Equipment Description COMPONENT COOLING HEAT EXCHANGER

# **Photographs**



Note: E-54B



Note: Anchorage

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 097

Equipment ID No. <u>E-54B</u> Equip. Class<sup>1</sup> <u>21 - TANKS AND HEAT EXCHANGERS</u>

Equipment Description COMPONENT COOLING HEAT EXCHANGER



Note: Additional Anchorage



Note: Concrete Chip

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 5	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 098</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>E-60A</u> Equip. Class <sup>1</sup> <u>21 – TANKS AN</u>	D HEAT EXCHANGERS
Equipment Description SHUTDOWN COOLING HEAT EXCHANGER	
Location: Bldg. <u>AUX</u> Floor El. <u>570</u> Room, Area <u>005</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdow SWEL. The space below each of the following questions may be used to refindings. Additional space is provided at the end of this checklist for docume	cord the results of judgments and
<u>Anchorage</u>	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item of the 50% of SWEL items requiring such verification)?</li> </ol>	one Y□ N⊠
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The heat exchanger is anchored to the top of E-60B with anchor bol through both of its legs(on the East and West ends of the heat exchanger).     </li> </ol>	Y⊠ N□ U□ N/A□ ts
Is the anchorage free of corrosion that is more than mild surface oxidation?  There is no corrosion that is more than mild surface oxidation.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors? The heat exhcanger is mounted to E-60B.	Y□ N□ U□ N/A⊠

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

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 5	
Seismic Walkdown Checklist (SWC) SWEL1- 098	Status: Y⊠ N□ U□
Equipment ID No. <u>E-60A</u> Equip. Class <sup>1</sup> <u>21 – TANKS AN</u>	ID HEAT EXCHANGERS
Equipment Description SHUTDOWN COOLING HEAT EXCHANGER	
<ol> <li>Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for whan anchorage configuration verification is required.)</li> </ol>	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	of Y⊠ N□ U□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?  The heat exchanger is not a soft target.	? Y□ N□ U□ N/A⊠ .
8. Are overhead equipment, distribution systems, ceiling tiles and light and masonry block walls not likely to collapse onto the equipment?  The suspension system for an overhead light was not visible but doe not appear to be a credible threat or display any signs that it is inadequately supported.	· — — — —
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 fr of potentially adverse seismic interaction effects?	ee Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WAL	KDOWN CHECKLIST FORM
Sheet 3 of 5	19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Sta	itus: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC) SWEL1- 098		
Equipment ID No. <u>E-60A</u> Equip. Class <sup>1</sup> <u>21 – TANKS</u>	AND HEAT EX	CHANGERS
Equipment Description SHUTDOWN COOLING HEAT EXCHANGER	2 - 4 - 200 - 200	
Other Adverse Conditions		
11. Have you looked for and found no other seismic conditions that c adversely affect the safety functions of the equipment?	1 ⊠Y bluo	N□ U□
		<u></u>
<u>Comments</u> (Additional pages may be added as necessary)		
Anchorbolts connecting E-60A to E-60B were inspected from vide due to radiation concerns.	eo taken by a p	ortable video camera
Evaluated by: Alex Smerch	Date:	10/9/2012
Evaluated by: Alex Smerch Poul & Lain		10/9/2012
, wall toom		

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

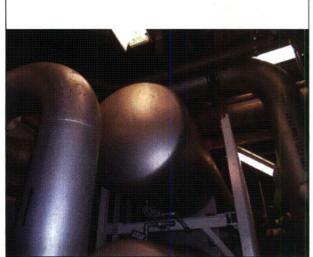
Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 098

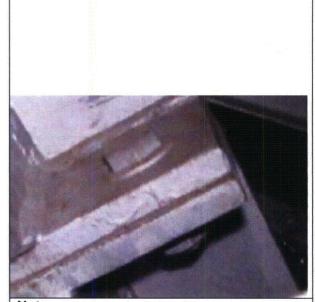
Equipment ID No. <u>E-60A</u> Equip. Class<sup>1</sup> <u>21 – TANKS AND HEAT EXCHANGERS</u>

Equipment Description SHUTDOWN COOLING HEAT EXCHANGER

# **Photographs**



Note: E-60A



Note: Anchorage for E-60A (1)

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 098

Equipment ID No. <u>E-60A</u> Equip. Class<sup>1</sup> <u>21 – TANKS AND HEAT EXCHANGERS</u>

Equipment Description SHUTDOWN COOLING HEAT EXCHANGER



Note: Anchorage for E-60A (2)



Note: Anchorage for E-60A (3)

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORI
Sheet 1 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1-099</u>	
Equipment ID No. <u>E-60B</u> Equip. Class 1 <u>21 - TANKS AND HE</u>	EAT EXCHANGERS
Equipment Description SHUTDOWN COOLING HEAT EXCHANGER	
Location: Bldg. <u>AUX</u> Floor El. <u>570</u> Room, Area <u>005</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	the results of judgments and
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⊠
Is the anchorage free of bent, broken, missing or loose hardware?  The heat exchanger is anchored to two concrete pedestals with two anchor bolts in each pedestal.	Y⊠ N□ U□ N/A□
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>There is some slight corrosion that is no more than mild surface oxidation.</li> </ol>	Y⊠ N□ U□ N/A□
Is the anchorage free of visible cracks in the concrete near the anchors?      Each concrete pedestal supporting E-60B extends to the top of the concrete floor slab.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Calanda Walladawa Charletia (CMC) - CMCI 4 000	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1-099</u>	
Equipment ID No. <u>E-60B</u> Equip. Class 1 <u>21 - TANKS AND HE</u>	EAT EXCHANGERS
Equipment Description SHUTDOWN COOLING HEAT EXCHANGER	
<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□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?	Y□ N□ U□ N/A⊠
The heat exchanger is not a soft target.	_
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?  The suspension system for an overhead light was not visible but does not appear to be a credible threat or display any signs that it is inadequately supported.	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?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1-099</u>	
Equipment ID No. <u>E-60B</u> Equip. Class 1 <u>21 - TANKS A</u>	AND HEAT EXCHANGERS
Equipment Description SHUTDOWN COOLING HEAT EXCHANGER	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that co adversely affect the safety functions of the equipment?	ould Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Back anchorage for E-60B was observed via the use of binoculars anchorage was observed via hand mirrors and a camera.	s due to radiation concerns. Front
Evaluated by: Alex Smerch	Date: 10/10/12
Paul Klein	10/10/12
i ddi Nolli -	10/10/12

Sheet 4 of 4

Seismic Walkdown Checklist Form

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-099

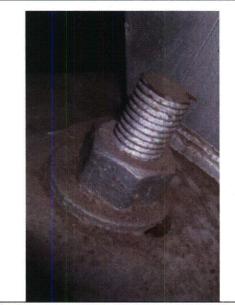
Equipment ID No. E-60B Equip. Class 1 21 - TANKS AND HEAT EXCHANGERS

**Photographs** 



Equipment Description SHUTDOWN COOLING HEAT EXCHANGER





Note: One of Anchor Bolts for E-60B

Status: Y N U  Seismic Walkdown Checklist (SWC) SWEL1- 100  Equipment ID No. T-13A Equip. Class¹ 21 - TANKS AND HEAT EXCHANGERS  Equipment Description EDG K-6A JACKET WATER SURGE TANK  Location: Bldg. AUX Floor El. 590 Room, Area 116  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	ENT 9.6 SEISMIC WALKDOWN CHECKLIST	FORM
Equipment ID No. T-13A Equip. Class¹ 21 - TANKS AND HEAT EXCHANGERS  Equipment Description EDG K-6A JACKET WATER SURGE TANK  Location: Bldg. AUX Floor El. 590 Room, Area 116  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	of 4	
Equipment ID No. T-13A Equip. Class 1 21 - TANKS AND HEAT EXCHANGERS  Equipment Description EDG K-6A JACKET WATER SURGE TANK  Location: Bldg. AUX Floor El. 590 Room, Area 116  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		J
Equipment Description <u>EDG K-6A JACKET WATER SURGE TANK</u> Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>116</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	c Walkdown Checklist (SWC) SWEL1- 100	
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>116</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	ent ID No. <u>T-13A</u> Equip. Class 1 <u>21 - TANKS AND HEAT EXCHANGERS</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	ent Description EDG K-6A JACKET WATER SURGE TANK	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on th SWEL. The space below each of the following questions may be used to record the results of judgments an findings. Additional space is provided at the end of this checklist for documenting other comments.  Anchorage	n: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>116</u>	
This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on th SWEL. The space below each of the following questions may be used to record the results of judgments an findings. Additional space is provided at the end of this checklist for documenting other comments.  Anchorage	cturer, Model, Etc. (optional but recommended)	
SWEL. The space below each of the following questions may be used to record the results of judgments an findings. Additional space is provided at the end of this checklist for documenting other comments.  Anchorage	ions for Completing Checklist	
	The space below each of the following questions may be used to record the results of judgments a	
	<u>age</u>	
<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☐ Tank is anchored to north wall by brackets and held down vertically by two U straps.	Tank is anchored to north wall by brackets and held down vertically by	
3. Is the anchorage free of corrosion that is more than mild surface oxidation?  There was no visible corrosion that was more than mild surface oxidation.  Y⊠ N□ U□ N/A□	oxidation? There was no visible corrosion that was more than mild surface	
<ul> <li>4. Is the anchorage free of visible cracks in the concrete near the anchors?</li> <li>The support holding up the tank is anchored to the concrete wall.</li> </ul>	anchors?	

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

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	Chatana MM NIC III
Seismic Walkdown Checklist (SWC) SWEL1- 100	Status: Y⊠ N⊡ U⊡
Equipment ID No. <u>T-13A</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND HE</u>	EAT EXCHANGERS
Equipment Description EDG K-6A JACKET WATER SURGE TANK	V 5 TH 10 TH
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 verified using SEWS package ID: T-13A (Rev. 1) Sheet 3 of 3 and Stevenson and Associates A46/IPEEE Outlier Resolution Calculation # EA POC00 5276-T13A&B Job#: 9252750 Sheet 3.	Y⊠ N□ U□ N/A□
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?  Tank is not 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?	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?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 100	Status: Y⊠ N□ U□
Equipment ID No. <u>T-13A</u> Equip. Class <sup>1</sup> <u>21 - TANKS</u>	AND HEAT EXCHANGERS
Equipment Description EDG K-6A JACKET WATER SURGE TANK	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that of adversely affect the safety functions of the equipment?	could Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Alex Smerch	Date: 10/03/2012
Evaluated by: Alex Smerch  Paul Klein  Paul Klein	10/03/2012

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 4 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) SWEL1	
Equipment ID No. <u>T-13A</u> Equip. Cla	ss <sup>1</sup> 21 - TANKS AND HEAT EXCHANGERS
Equipment Description EDG K-6A JACKET WATER S	SURGE TANK
Photographs	#
Note: T-13A	Note:

ATTACHMENT 9.6 Si	EISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 101</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>T-13B</u> Equip. Class <sup>1</sup> <u>21, TANKS AND I</u>	HEAT EXCHANGERS
Equipment Description EDG 1-2 K-6B JACKET WATER SURGE TK	
Location: Bldg. AUX Floor El. 590 Room, Area 116B	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown SWEL. The space below each of the following questions may be used to recefindings. Additional space is provided at the end of this checklist for document	ord the results of judgments and
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item or of the 50% of SWEL items requiring such verification)?</li> </ol>	ne Y□ N⊠
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The equipment is anchored to two brackets with two u-bolts around the tank. The brackets are anchored to a concrete wall with 2 anchor bold per bracket.     </li> </ol>	
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>Anchorage to wall is painted. No corrosion noted on u-bolts or wall anchorage.</li> </ol>	Y⊠ N□ U□ N/A□
Is the anchorage free of visible cracks in the concrete near the anchors?      No cracks observed in concrete wall.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	Status: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC) <u>SWEL1- 101</u>	
Equipment ID No. <u>T-13B</u> Equip. Class <sup>1</sup> <u>21, TANKS AND HE</u>	AT EXCHANGERS
Equipment Description EDG 1-2 K-6B JACKET WATER SURGE TK	
<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□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?	
Item is not a soft target.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	Y⊠ N□ U□ N/A□
<ol> <li>Do attached lines have adequate flexibility to avoid damage?         Piping lines over to diesel tank and wall have multiple bends and flexibility for deformation along piping lines.     </li> </ol>	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□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 101</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>T-13B</u> Equip. Class <sup>1</sup> <u>21, TANKS AN</u>	ND HEAT EXCHANGERS
Equipment Description <u>EDG 1-2 K-6B JACKET WATER SURGE TK</u>	,
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that conditions adversely affect the safety functions of the equipment?	ould Y⊠ N□ U□
·	
Comments (Additional pages may be added as necessary)	
Bolt holes in bracket noted towards the top of the bracket. Item ju bracket as-installed based on size of anchors relative to size of eq	•
. 0	
Evaluated by: Kevin Bessell Li-Ball	Date: <u>10/15/2012</u>
John Kao	
John Kao 🔾	10/15/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

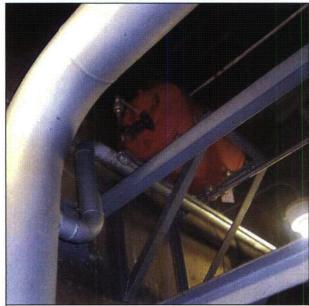
Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 101

Equipment ID No. <u>T-13B</u> Equip. Class 21, TANKS AND HEAT EXCHANGERS

Equipment Description EDG 1-2 K-6B JACKET WATER SURGE TK

### **Photographs**



Note: Equipment.



Note: Holes in top of bracket.

ATTACHMENT 9.6 SEISM	IIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 102</u>	
Equipment ID No. <u>T-2</u> Equip. Class <sup>1</sup> <u>21, TANKS AND HEA</u>	AT EXCHANGERS
Equipment Description CONDENSATE STORAGE TANK	
Location: Bldg. <u>TURB</u> Floor El. <u>590</u> Room, Area <u>OUTSIDE, C</u>	OL Y5, LINE 19
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	the results of judgments and
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□
Is the anchorage free of bent, broken, missing or loose hardware?     Equipment anchorage consists of 12 cast in place anchors around the base of the tank.	Y⊠ N□ U□ N/A□
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>Mild corrosion noted on a couple of the anchors. The majority of anchors were free from corrosion.</li> </ol>	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors? Small surface cracks noted near a few anchors. The leveling pad beneath the tank baseplate has spalled in areas around the perimeter. This does not pose an adverse seismic risk.	Y⊠ N□ U□ N/A□

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

	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4 Seismic Walkdown Checklist (SWC) <u>SWEL1- 102</u>	Status: Y⊠ N□ U□
Equipment ID No. T-2 Equip. Class 1 21, TANKS AND HE.	AT EXCHANGERS
Equipment Description CONDENSATE STORAGE TANK	
<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> <li>The equipment anchorage configuration is consistent with drawing VEN-C18, Sh. 41, Rev. 7, C-18, Sh.1, Rev. 2 and SEWS Sht. 1 of 4.</li> </ol>	Y⊠ N□ U□ N/A□
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	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? Adjacent tanks T-81 and T-7 pose interaction concerns. T-81 is documented in SEWS Sht. 1 of 4 as posing no interaction threat. Tank T-7 is smaller and sufficiently anchored and judged not to be credible interaction. A structural steel platform is noted on the roof of the building north of tank T-2 which is supporting large HVAC units. Interaction of the HVAC units with the tank is not credible since the steel platform is well braced and is judged to maintain integrity during a seismic event preventing collapse over and onto tank.	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?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 102	Status: Y⊠ N□ U□
Equipment ID No. <u>T-2</u> Equip. Class <sup>1</sup> <u>21, TANKS AN</u>	ID HEAT EXCHANGERS
Equipment Description CONDENSATE STORAGE TANK	0.0444
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that conadversely affect the safety functions of the equipment?	uld Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell	Date: <u>10/10/2012</u>
Evaluated by: Kevin Bessell Kao  John Kao	<u>10/10/2012</u>

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 4 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) SWEL1- 102	Otatus. 12 N
Equipment ID No. <u>T-2</u> Equip. Class <sup>1</sup> <u>21, TANKS</u>	AND HEAT EXCHANGERS
Equipment Description CONDENSATE STORAGE TANK	
Photographs	
	21 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
150 Int 36 (1	
This photo contains security-sensitive information. It is available for review at the Palisades Nuclear Plant.	TANK
	T-2
	CONDENSATE STORAGE TANK
Note: Equipment. Note: Equip	pment Tag ID.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 5	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 103</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>T-25A</u> Equip. Class <sup>1</sup> <u>21, TANKS AI</u>	ND EXCHANGERS
Equipment Description EMERGENCY DIESEL GEN 1-1 K-6A DAY TAN	IK
Location: Bldg. AUX Floor El. 590 Room, Area 146	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkd SWEL. The space below each of the following questions may be used to findings. Additional space is provided at the end of this checklist for document	record the results of judgments and
Anchorage	-
<ol> <li>Is the anchorage configuration verification required (i.e., is the iter of the 50% of SWEL items requiring such verification)?</li> </ol>	n one Y⊠ N□
2. Is the anchorage free of bent, broken, missing or loose hardware? Tank legs are anchored to the floor with cast in place anchors. The are additional anchors to the wall along the top and bottom of tank. The tank is heavily braced with tube steel along the east side of the tank.	nere (.
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>There is no corrosion on the anchors.</li> </ol>	Y⊠ N□ U□ N/A□
<ol> <li>Is the anchorage free of visible cracks in the concrete near the anchors?</li> <li>The equipment is anchored to the concrete walls and floor. There no cracks observed.</li> </ol>	Y⊠ N□ U□ N/A□

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

		SMIC WALKDOWN CHECKLIST FORM
Sheet 2		Status: Y⊠ N⊡ U⊡
	nic Walkdown Checklist (SWC) SWEL1- 103	/O
	nent ID No. <u>T-25A</u> Equip. Class <sup>1</sup> <u>21, TANKS AND EX</u>	(CHANGERS
	ment Description <u>EMERGENCY DIESEL GEN 1-1 K-6A DAY TANK</u>	
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.)  The anchorage configuration is consistent with plant drawing C-103, Sh. 2B, Rev. 1 with the exception of the angle connecting the tube steel at the top brace. The angle is a 4x4x0'-4"x1/2" and drawing C-103 calls for a 5x3x0'-4"x1/2" angle. Licensing basis evaluation, LB-02, has been created. CR-PLP-2012-6565 has been initiated.	Y∏ N⊠ U∏ N/A∏
6.	Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?  The anchorage configuration is consistent with plant drawing C-103, Sh. 2B, Rev. 1 with the exception of the angle connecting the tube steel at the top brace. The angle is a 4x4x0'-4"x1/2" and drawing C-103 calls for a 5x3x0'-4"x1/2" angle. Licensing basis evaluation, LB-02, has been created. CR-PLP-2012-6565 has been initiated.	Y N U
Intera	ction Effects	
7.	Are soft targets free from impact by nearby equipment or structures? 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? Fluorescent light fixture noted overhead near tank. The fixture and light are judged not to be a credible or significant seismic interaction due to the relative mass and stiffness of the fixture compared to that of the tank as well as a tube steel support between the tank and the fixture zone of influence.	Y⊠ N□ U□ N/A□
9.	Do attached lines have adequate flexibility to avoid damage?  Bends exist in piping and tubing to provide flexibility, and piping lines enter oversized penetrations in the wall allowing for axial movement.	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□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST F	ORM
Sheet 3 of 5		
	Status: Y⊠ N⊡ U[	
Seismic Walkdown Checklist (SWC) <u>SWEL1-</u>		
Equipment ID No. <u>T-25A</u> Equip. Class	s <sup>1</sup> _21, TANKS AND EXCHANGERS	
Equipment Description EMERGENCY DIESEL GEN 1	1 K-6A DAY TANK	
Other Adverse Conditions		-
<ol> <li>Have you looked for and found no other seismic adversely affect the safety functions of the equip</li> </ol>		
Comments (Additional pages may be added as necess	ary)	
Evaluated by: Kevin Bessell L. Bull  John Kao  John Kao	Detail 10/2/2012 10/2/201	
Evaluated by: Nevill Dessell	Date: <u>10/2/2012, 10/3/201</u>	12
John Kao		
John Kao U	10/2/2012, 10/3/201	<u>12</u>

Seismic Walkdown Checklist Form

Sheet 4 of 5

Seismic Walkdown Checklist (SWC) SWEL1- 103

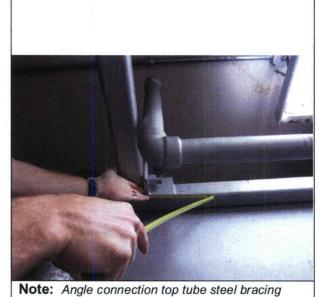
Equipment ID No. T-25A Equip. Class 21, TANKS AND EXCHANGERS

Equipment Description EMERGENCY DIESEL GEN 1-1 K-6A DAY TANK

### **Photographs**



Note: Equipment.



supports.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 5 of 5	
Seismic Walkdown Checklist (SWC) SWEL1- 103	Status: Y⊠ N□ U□
Equipment ID No. <u>T-25A</u> Equip. Class <sup>1</sup> <u>21, TANKS</u>	S AND EXCHANGERS
Equipment Description EMERGENCY DIESEL GEN 1-1 K-6A DAY T	TANK
Note: Angle connection top tube steel bracing supports non-conformance.	

ATTACHMENT 9.6 SE	ISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	• • •
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 104</u>	
Equipment ID No. <u>T-25B</u> Equip. Class <sup>1</sup> <u>21, TANKS AND H</u>	IEAT EXCHANGERS
Equipment Description <u>EMERGENCY DIESEL GEN 1-2 K-6B DAY TANK</u>	
Location: Bldg. AUX Floor El. 590 Room, Area 147	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown SWEL. The space below each of the following questions may be used to recofindings. Additional space is provided at the end of this checklist for document	rd the results of judgments and
Anchorage	
Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?	e Y□ N⊠
2. Is the anchorage free of bent, broken, missing or loose hardware?  Tank legs are anchored to the floor with cast in place anchors. There are additional anchors to the wall along the top and bottom of tank.	Y⊠ N□ U□ N/A□
The tank is heavily braced with tube steel along the west side of the tank.	
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Y⊠ N□ U□ N/A□
There is no corrosion on the anchors. Anchors appear galvanized.	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y⊠ N□ U□ N/A□
The equipment is anchored to the concrete walls and floor. There are no cracks observed.	

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

ATTACHMENT 9.6 SEISI	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) SWEL1- 104	
Equipment ID No. <u>T-25B</u> Equip. Class <sup>1</sup> <u>21, TANKS AND HE</u>	AT EXCHANGERS
Equipment Description <u>EMERGENCY DIESEL GEN 1-2 K-6B DAY TANK</u>	
<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□
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures?         Item is not a soft target.     </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?  Fluorescent light fixture noted overhead near tank. The fixture and light are judged not to be a credible or significant seismic interaction due to the relative mass and stiffness of the fixture compared to that of the tank as well as a tube steel support between the tank and the fixture zone of influence.	Y⊠ N□ U□ N/A□
<ol> <li>Do attached lines have adequate flexibility to avoid damage?         Bends exist in piping and tubing to provide flexibility, and piping lines enter oversized penetrations in the wall allowing for axial movement.     </li> </ol>	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□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 104</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>T-25B</u> Equip. Class <sup>1</sup> <u>21, TANKS ANI</u>	D HEAT EXCHANGERS
Equipment Description <u>EMERGENCY DIESEL GEN 1-2 K-6B DAY TANK</u>	<u> </u>
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that cou adversely affect the safety functions of the equipment?	ıld Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell Kao  John Kao	Date: <u>10/15/2012</u>
John Kao	
John Kao 🛈	<u>10/15/2012</u>

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 104

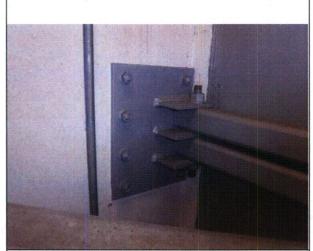
Equipment ID No. <u>T-25B</u> Equip. Class <u>21, TANKS AND HEAT EXCHANGERS</u>

Equipment Description <u>EMERGENCY DIESEL GEN 1-2 K-6B DAY TANK</u>

# **Photographs**



Note: Equipment.



Note: Equipment anchorage for seismic restraining brace.

ATTACHMENT 9.6 SE	ISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
0 : : : : : : : : : : : : : : : : : : :	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 105</u>	
Equipment ID No. <u>T-31B</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND I</u>	HEAT EXCHANGERS
Equipment Description EDG 1-1 K-6A AIR STARTING TANK	
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>116</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown SWEL. The space below each of the following questions may be used to reco findings. Additional space is provided at the end of this checklist for document	rd the results of judgments and
<u>Anchorage</u>	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item on of the 50% of SWEL items requiring such verification)?</li> </ol>	e Y⊠ N□
Is the anchorage free of bent, broken, missing or loose hardware?      Anchored to floor through base with 4 bolt circular pattern.	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?  There is no visible corrosion that is more than mild surface oxidation.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors?  The tank is anchored to the concrete floor slab.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 SEISMIC WALKDOWN CHECKLIST	
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 105	Status: Y⊠ N□ U□
Equipment ID No. <u>T-31B</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND H</u>	IEAT EXCHANGERS
Equipment Description EDG 1-1 K-6A AIR STARTING TANK	
<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> <li>Used DWG M-12 Sheet 8 to verify anchorage.</li> </ol>	Y⊠ N□ U□ N/A□
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
7. Are soft targets free from impact by flearby equipment of structures:	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead large duct judged to be adequately supported.	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?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 105	Status: Y⊠ N□ U□
Equipment ID No. <u>T-31B</u> Equip. Class <sup>1</sup> <u>21 - TANKS</u>	AND HEAT EXCHANGERS
Equipment Description <u>EDG 1-1 K-6A AIR STARTING TANK</u>	Harries and the second of the
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that adversely affect the safety functions of the equipment?	could Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Alex Smerch	Date: <u>10/03/2012</u>
Paul Klein Poul & Llein	10/03/2012

ATTACHMENT 9.6		SEISMIC WALKDOWN CHECKLIST FORM
Sheet 4 of 4 Seismic Walkdown Checklist (SV	VC) <u>SWEL1- 105</u>	Status: Y⊠ N⊡ U⊡
Equipment ID No. <u>T-31B</u>	Equip. Class <sup>1</sup> <u>21 - T/</u>	ANKS AND HEAT EXCHANGERS
Equipment Description EDG 1-1 K-6A	AIR STARTING TANK	
Photographs		
T-31B D/G 1-1 AIR STARTING TANK		
Note: T-31B	Note:	

ATTACHMENT 9.6 SEISI	MIC WALKDOWN CHECKLIST FORI
Sheet 1 of 4	- 147
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 106</u>	
Equipment ID No. <u>T-31C</u> Equip. Class <sup>1</sup> <u>21, TANKS AND HE.</u>	AT EXCHANGERS
Equipment Description EDG 1-2 K-6B AIR STARTING TANK	
Location: Bldg. AUX Floor El. 590 Room, Area 116B	
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	the results of judgments and
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?  Equipment anchorage consists of 4 - 3/4" cast in place anchors around the perimeter of the tank baseplate. The baseplate is attached to the bottom of the tank with intermittent fillet welds, 3" long on 8" centers.	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?  The equipment and anchors are painted and no corrosion is observed.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors? The equipment sits on top of a concrete pedestal on the concrete floor. The floor and pedestal are painted. No cracks are observed.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6		SEISMIC WAI	KDOWN CHECKLIST FORM
Sheet 2 of 4			
Seismic Walk	down Checklist (SWC) <u>SWEL1- 106</u>	Sta	atus: Y⊠ N∏ U∏
Equipment ID N	o. <u>T-31C</u> Equip. Class <sup>1</sup> <u>21, T.</u>	ANKS AND HEAT EXC	CHANGERS
Equipment Desc	cription EDG 1-2 K-6B AIR STARTING TANK		
(Note: Tł an ancho <i>Th</i> e <i>equ</i> i	ichorage configuration consistent with plant documents of the second configuration verification is required.)  Signment anchorage is consistent with drawing M-1 (EWS Sh. 1 of 5.)	50% for which	N□ U□ N/A□
	n the above anchorage evaluations, is the ancho ly adverse seismic conditions?	rage free of Y⊠	N□ U□
Interaction Effe	<del></del>	atmost usas?	N□ U□ N/A⊠
	targets free from impact by nearby equipment or ot a soft target.	structures?. T	
	head equipment, distribution systems, ceiling tile conry block walls not likely to collapse onto the ec		N□ U□ N/A□
There ar	hed lines have adequate flexibility to avoid dama re tubing and piping lines with multiple bends that nese lines are supported with hanger rods.		N□ U□ N/A□
	n the above seismic interaction evaluations, is editially adverse seismic interaction effects?	γuipment free Y⊠	N_ U_

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	·
Seismic Walkdown Checklist (SWC) SWEL1- 106	Status: Y⊠ N□ U□
Equipment ID No. <u>T-31C</u> Equip. Class <sup>1</sup> <u>21, TANKS AN</u>	ID HEAT EXCHANGERS
Equipment Description EDG 1-2 K-6B AIR STARTING TANK	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that co adversely affect the safety functions of the equipment?	uld Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell Lin Bull	Date: <u>10/15/2012</u>
Evaluated by: Kevin Bessell Lin Bull  John Kao  John Kao	10/15/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 106

Equipment ID No. <u>T-31C</u> Equip. Class<sup>1</sup> <u>21, TANKS AND HEAT EXCHANGERS</u>

Equipment Description EDG 1-2 K-6B AIR STARTING TANK

# **Photographs**



Note: Equipment.



Note: Equipment anchorage.

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORI
Sheet 1 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 107</u>	
Equipment ID No. <u>T-58</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND H.</u>	EAT EXCHANGERS
Equipment Description SAFETY INJECTION REFUELING WATER TANK	
Location: Bldg. <u>AUX</u> Floor El. <u>644</u> Room, Area <u>808</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	the results of judgments and
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?  T-58 is anchored to the concrete with 52 - 1-1/2 in. dia. anchor bolts.  The bolts go through a stiffened flat bar welded to the tank that rings the tank approximately 15 in. above the base of the tank. The bolts are located on approximately 34 in. centers around the circumference of the tank.	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?  There was no visible corrosion in excess of mild surface corrosion.	Y⊠ N□ U□ N/A□
There was no visible corrosion in excess of mild surface corrosion.	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y□ N□ U□ N/A⊠
The roof coating at the base of tank T-58 prevented inspection of the concrete around the anchors.	

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

ATTACHMENT 9.6 SE	ISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 107</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>T-58</u> Equip. Class <sup>1</sup> <u>21 - TANKS AND F</u>	HEAT EXCHANGERS
Equipment Description SAFETY INJECTION REFUELING WATER TANK	
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.) The anchorage configuration of tank T-58 was compared with the tank supplier drawing (Plant Dwg. No. 5935-C-18-1-2) and Dwg. C-106 Rev 6.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?  Tank T-58 was judged not to be 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? T-58 is located outside and the only item that possibly may impact the tank was the ductwork along the east side of the tank. The ductwork is well supported and is judged not to represent a threat to the tank.	
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y⊠ N□ U□

ATTACHMENT 9.6				SEIS	MIC WALK	COWN CHEC	KLIST FORM
Sheet 3 of 4			<del>Pale (1) rea (Mai) a ri<sub>s</sub> a - santaur</del>				
					Stat	us: Y⊠ N	I U
Seismic Walkdov	wn Checklist (S	WC) SWEL1	- 107				
Equipment ID No.	<u>T-58</u>	Equip. Cla	ss <sup>1</sup> <u>21 - TAN</u>	KS AND H	EAT EXC	HANGERS	<del></del>
Equipment Descript	ion SAFETY INJ	ECTION REFUE	LING WATER	TANK			
Other Adverse Cor	nditions	ESSET				1991	<del>na recessa Amanda -</del> 8:
	oked for and found fect the safety fund			nat could	Y⊠ N	□∪□	
10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1						
Comments (Addition	onal pages may be	added as neces	sary)				
Evaluated by: Alex	Smerch Mex	ha			_ Date:	<u>10-10-12</u>	
	Pouly	Lein Llein					
<u>Paul</u>	Klein 0				_	<u>10-10-12</u>	

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

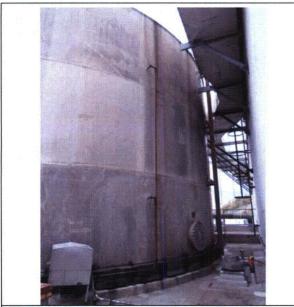
Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 107

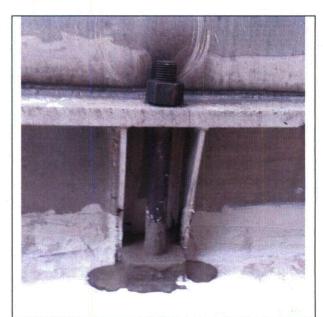
Equipment ID No. <u>T-58</u> Equip. Class<sup>1</sup> <u>21 - TANKS AND HEAT EXCHANGERS</u>

Equipment Description SAFETY INJECTION REFUELING WATER TANK

### **Photographs**



Note: Tank T-58



Note: Tank T-58 Anchor Bolt. 1 of 52

ATTACHMENT 9.6 SEI	SMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
Calamia Walladawa Chaplaliat (SWC) SWEL4 400	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 108</u>	
Equipment ID No. <u>VF-26A</u> Equip. Class 1 10, AIR HANDLER	<u> </u>
Equipment Description AIR HANDLING UNIT V-26A FILTER	
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area <u>300</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 recorfindings. Additional space is provided at the end of this checklist for documential contents.	d the results of judgments and
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?  The equipment is anchored with 6 cast in place anchors along each side of the component base for a total of 12 anchors.	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?      Mild oxidation noted	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors? Equipment is resting on a grout pad and concrete pedestal atop a concrete floor, no cracks observed.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) <u>SWEL1- 108</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>VF-26A</u> Equip. Class <sup>1</sup> <u>10, AIR HAND</u>	LERS
Equipment Description AIR HANDLING UNIT V-26A FILTER	
<ol> <li>Is the anchorage configuration consistent with plant documentation (Note: This question only applies if the item is one of the 50% for wan anchorage configuration verification is required.)</li> <li>The equipment anchorage configuration is consistent with drawing M57A-1, Sh. 1, Rev. 75 and C-455, Rev. 12.</li> </ol>	vhich
6. Based on the above anchorage evaluations, is the anchorage free potentially adverse seismic conditions?	of Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structure:  Item is not a soft target.	s? Y□ N□ U□ N/A⊠
Are overhead equipment, distribution systems, ceiling tiles and light and masonry block walls not likely to collapse onto the equipment?	
9. Do attached lines have adequate flexibility to avoid damage?  Flex conduit noted entering unit housing.	Y⊠ N□ U□ N/A□
Based on the above seismic interaction evaluations, is equipment of potentially adverse seismic interaction effects?	free Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 108</u>	
Equipment ID No. <u>VF-26A</u> Equip. Class <sup>1</sup> <u>10, AIR HANDL</u>	ERS
Equipment Description AIR HANDLING UNIT V-26A FILTER	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that couladversely affect the safety functions of the equipment?	ld Y⊠ N□`U□
Comments (Additional pages may be added as necessary)	
•	
Evaluated by: Kevin Bessell Li-Bank	Date: <u>10/10/2012</u>
Evaluated by: Kevin Bessell Li-Band  John Kao  John Kao	10/10/2012

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 4 of 4  Seismic Walkdown Checklist (SWC) <u>SWEL</u>	Status: Y⊠ N□ U□
Equipment ID No. <u>VF-26A</u> Equip. C	ass <sup>1</sup> _10, AIR HANDLERS
Equipment Description AIR HANDLING UNIT V-26A	FILTER
Photographs	
Note: Equipment.	Note:

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 5	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 109</u>	
Equipment ID No. <u>VF-26B</u> Equip. Class <sup>1</sup> <u>10, AIR HANDL</u>	ERS
Equipment Description AIR HANDLING UNIT V-26B FILTER	
Location: Bldg. AUX Floor El. 629.17 Room, Area 300A	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdow SWEL. The space below each of the following questions may be used to refindings. Additional space is provided at the end of this checklist for document	cord the results of judgments and
Anchorage	
1. Is the anchorage configuration verification required (i.e., is the item of the 50% of SWEL items requiring such verification)?	one Y□ N⊠
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The equipment is anchored with 6 cast in place anchors along each side of the component base for a total of 12 anchors.     </li> </ol>	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?      Mild surface corrosion noted.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors? Equipment is resting on a grout pad and concrete pedestal atop a concrete floor, hairline shrinkage cracks noted at approximate 6" intervals on west side of pedestal and grout pad. Cracks are superland are judged to be okay.	Y⊠ N□ U□ N/A□ .

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

ATTACHMENT 9.6 S	EISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 5	Status: Y⊠ N⊟ U⊟
Seismic Walkdown Checklist (SWC) SWEL1- 109  Equipment ID No. VF-26B Equip. Class 1 10, AIR HANDLE.	RS
Equipment Description AIR HANDLING UNIT V-26B FILTER	
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⊠ ch
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?	Y□ N□ U□ N/A⊠
Item is not a soft target.  8. Are overhead equipment, distribution systems, ceiling tiles and lighting	
and masonry block walls not likely to collapse onto the equipment?	
<ol> <li>Do attached lines have adequate flexibility to avoid damage? Flex conduit noted entering unit housing.</li> </ol>	Y⊠ N□ U□ N/A□
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	e Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 5	
Seismic Walkdown Checklist (SWC)SWEL1109	Status: Y⊠ N□ U□
Equipment ID No. <u>VF-26B</u> Equip. Class <sup>1</sup> <u>10, AIR HANDL</u>	ERS
Equipment Description AIR HANDLING UNIT V-26B FILTER	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that coul adversely affect the safety functions of the equipment?	ld Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell L. B.	Date: 10/16/2012
Evaluated by: Kevin Bessell Lin Bull	10/16/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 109

Equipment ID No. VF-26B Equip. Class 1 10, AIR HANDLERS

Equipment Description AIR HANDLING UNIT V-26B FILTER

### **Photographs**



Note: Equipment.



Note: Equipment Anchorage.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 5 of 5  Seismic Walkdown Checklist (SWC)SWEL1109	Status: Y⊠ N⊟ U⊟
Equipment ID No. <u>VF-26B</u> Equip. Class <sup>1</sup> <u>10, AIR HAN</u>	DLERS
Equipment Description AIR HANDLING UNIT V-26B FILTER	
Note: Top view of VF-26B looking south.  Note:	

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 1 of 5	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 110</u>	
Equipment ID No. <u>PO-1711</u> Equip. Class <sup>1</sup> <u>0, OTHER</u>	
Equipment Description MODULATION DAMPER D-20 POSITIONER	
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area <u>300</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	the results of judgments and
<u>Anchorage</u>	
1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?	Y⊠ N□
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The equipment anchorage consists of 4 bolts connecting it to a steel frame that is positioned to the damper.     </li> </ol>	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?  There is no corrosion present.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors?  The component is anchored to a steel frame.	Y□ N□ U□ N/A⊠

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

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 5	
Seismic Walkdown Checklist (SWC) SWEL1- 110	Status: Y⊠ N□ U□
Equipment ID No. <u>PO-1711</u> Equip. Class <sup>1</sup> <u>0, OTHER</u>	
Equipment Description MODULATION DAMPER D-20 POSITIONER	
<ol> <li>Is the anchorage configuration consistent with plant documenta (Note: This question only applies if the item is one of the 50% for an anchorage configuration verification is required.)</li> <li>The anchorage configuration is consistent with M0244, Sh. 57, and 43.</li> </ol>	or which
6. Based on the above anchorage evaluations, is the anchorage fine potentially adverse seismic conditions?	ree of Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or struct	ures? Y⊠ N□ U□ N/A□
8. Are overhead equipment, distribution systems, ceiling tiles and and masonry block walls not likely to collapse onto the equipment Fluorescent light fixtures overhead. Light fixtures hanging from with S hooks. Light fixtures judged not to come off S hooks due vertical seismic acceleration < 1.0g.	ent?
9. Do attached lines have adequate flexibility to avoid damage?  Flex conduit noted attached to positioner.	Y⊠ N□ U□ N/A□
Based on the above seismic interaction evaluations, is equipmed of potentially adverse seismic interaction effects?	ent free Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 5	
Seismic Walkdown Checklist (SWC)SWEL1- 110	Status: Y⊠ N□ U□
Equipment ID No. <u>PO-1711</u> Equip. Class 1 <u>0, OTHER</u>	
Equipment Description <u>MODULATION DAMPER D-20 POSITIONER</u>	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that adversely affect the safety functions of the equipment?  There is a drip funnel overhead for roof leak and rust stains are along the HVAC duct. This corrosion is not a seismic concern; however, a work order (WR288642) has been initiated.	
<u>Comments</u> (Additional pages may be added as necessary)	
Insulation is noted on damper D-20 that has separated from the been initiated.	unit. A work order (WR288643) has
Evaluated by: Kevin Bessell Lin Bankso  John Kao	Date: <u>10/10/2012</u>
John Kao	10/10/2012
	IOTIOTE

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 110

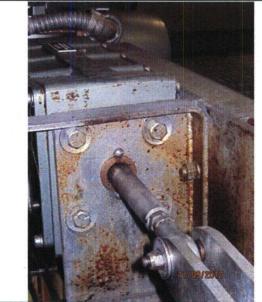
Equipment ID No. <u>PO-1711</u> Equip. Class 1 <u>0, OTHER</u>

Equipment Description MODULATION DAMPER D-20 POSITIONER

### **Photographs**



Note: Equipment.



Note: Equipment anchorage to steel frame.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 110

Equipment ID No. <u>PO-1711</u> Equip. Class 1 <u>0, OTHER</u>

Equipment Description MODULATION DAMPER D-20 POSITIONER



Note: Insulation separated from damper unit.



Note: Drip funnel overhead.

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 111</u>	
Equipment ID No. <u>PO-1712</u> Equip. Class <sup>1</sup> <u>0, OTHER</u>	
Equipment Description MODULATION DAMPER D-21 POSITIONER	
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area <u>300A</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 the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of this checklist for documenting the space is provided at the end of the space is provided the space is provided at the end of the space is provided the sp	the results of judgments and
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⊠
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The equipment anchorage consists of 4 bolts connecting it to a steel frame that is positioned to the damper.     </li> </ol>	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?      There is no corrosion present.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors?  The component is anchored to a steel frame.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 Seis	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) SWEL1- 111	Status: Y⊠ N□ U□
Equipment ID No. <u>PO-1712</u> Equip. Class <sup>1</sup> <u>0, OTHER</u>	
Equipment Description MODULATION DAMPER D-21 POSITIONER	
<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□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
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?  Flex conduit noted attached to positioner.	Y⊠ N□ U□ N/A□
Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
0 · · · W II · · · · · · · · · · · · · ·	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL1- 111</u>	
Equipment ID No. <u>PO-1712</u> Equip. Class <sup>1</sup> <u>0, OTHER</u>	·
Equipment Description <u>MODULATION DAMPER D-21 POSITIONER</u>	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that conditions adversely affect the safety functions of the equipment?	ould Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
:1 D 1	
Evaluated by: Kevin Bessell	Date: <u>10/16/2012</u>
Evaluated by: Kevin Bessell Li-Ball	
John Kao	10/16/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL1- 111

Equipment ID No. PO-1712 Equip. Class 0, OTHER

Equipment Description MODULATION DAMPER D-21 POSITIONER

# **Photographs**



Note: Equipment.



Note: Equipment anchorage.

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
	Status: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC) <u>SWEL2- 001</u>	
Equipment ID No. <u>P-51A</u> Equip. Class <sup>1</sup> <u>5, HORIZONTA</u>	AL PUMPS
Equipment Description SPENT FUEL POOL COOLING PUMP	
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>115</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdo SWEL. The space below each of the following questions may be used to refindings. Additional space is provided at the end of this checklist for document	ecord the results of judgments and
Anchorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item of the 50% of SWEL items requiring such verification)?</li> </ol>	one Y□ N⊠
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The anchorage consists of 4 bolts connecting pump skid with concepted pedestal.     </li> </ol>	Y⊠ N□ U□ N/A□ rete
Is the anchorage free of corrosion that is more than mild surface oxidation?      The anchorage is painted and shows no corrosion.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors?  There is a concrete pedestal supporting the pump that is approximate 1' high and is located directly on the concrete floor slab.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) SWEL2- 001	Status: Y⊠ N□ U□
Equipment ID No. <u>P-51A</u> Equip. Class <sup>1</sup> <u>5, HORIZONTAL PU</u>	IMPS
Equipment Description SPENT FUEL POOL COOLING PUMP	
<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⊠
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects  7. Are soft targets free from impact by nearby equipment or structures?	Y□ N□ U□ N/A⊠
Pump is not a soft target.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Light bulbs overhead could fall but do not pose a credible threat to the pump.	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?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
	Status: Y⊠ N⊟ U⊟
Seismic Walkdown Checklist (SWC) SWEL2- 001	
Equipment ID No. <u>P-51A</u> Equip. Class <sup>1</sup> <u>5, HORIZ</u>	ONTAL PUMPS
Equipment Description SPENT FUEL POOL COOLING PUMP	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions the adversely affect the safety functions of the equipment?	at could Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Alex Smerch	Date: 10/04/2012
Evaluated by: Alex Smerch  Paul Klein	10/04/2012
	The second secon

ATTACHMENT 9.6	ENT 9.6 SEISMIC WALKDOWN CHECKLIST FOR	
Sheet 4 of 4		
	Status: Y⊠ N⊟ U	ı
Seismic Walkdown Checklist (SWC)S		
Equipment ID No. P-51A Equipment	uip. Class <sup>1</sup> 5. HORIZONTAL PUMPS	
Equipment Description SPENT FUEL POOL C		
Photographs	002///07/07///	
rnotographis		
This photo contains security-sensitive information. It is available for review at th Palisades Nuclear Plant.	le	
Note: P-51A	Note:	

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FOR
Sheet 1 of 4	THE STATE OF THE S
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL2- 002</u>	
Equipment ID No. <u>P-51B</u> Equip. Class <sup>1</sup> <u>5, HORIZONTAL PL</u>	IMPS
Equipment Description SPENT FUEL POOL COOLING PUMP	
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>115</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	<del>-</del> ·
This checklist may be used to document the results of the Seismic Walkdown or 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 the space of t	the results of judgments and
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?         The anchorage consists of 4 anchors attaching a pump skid to an approximately 1 foot high concrete pedestal.     </li> </ol>	Y□ N⊠ U□ N/A□
There was one approximately 3/4" bolt on the southwest side of the pump responsible for attaching the pump pedestal to the pump skid that did not have full thread engagement with its respective nut. Due to the fact that no more than 2 threads were not engaged, the failure limit state of the bolt most likely remains unchanged and therefore its capacity remains unchanged. Therefore this is not seen as an operability concern at this time but licensing basis evaluation, LB-06 on EN-DC-168-ATT-9.8, has been initiated to follow up. CR-PLP-2012-7084 is initiated. (See Photo)	
3. Is the anchorage free of corrosion that is more than mild surface oxidation? The anchors are fully painted and show no corrosion.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) SWEL2- 002	Status: Y⊠ N□ U□
Equipment ID No. <u>P-51B</u> Equip. Class <sup>1</sup> <u>5, HORIZONT.</u>	AL PUMPS
Equipment Description SPENT FUEL POOL COOLING PUMP	
4. Is the anchorage free of visible cracks in the concrete near the anchors?  The concrete foundation consisted of an approximately 1 foot high concrete pedestal located directly on the concrete floor slab.	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 wan anchorage configuration verification is required.)</li> <li>Anchorage configuration validated with PLP SEWS package for P-Sheets 6-8.</li> </ol>	vhich
6. Based on the above anchorage evaluations, is the anchorage free potentially adverse seismic conditions?  There was one approximately 3/4" bolt on the southwest side of the pump responsible for attaching the pump pedestal to the pump ski that did not have full thread engagement with its respective nut. Do to the fact that no more than 2 threads were not engaged, the failur limit state of the bolt most likely remains unchanged and therefore its capacity remains unchanged. Therefore this is not seen as an operability concern at this time but licensing basis evaluation, LB-C on EN-DC-168-ATT-9.8, has been initiated to follow up. (See Photon	e id ue ure
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structure.  The pump is not a soft target.	s? Y□ N□ U□ N/A⊠
8. Are overhead equipment, distribution systems, ceiling tiles and light and masonry block walls not likely to collapse onto the equipment? Nearby light bulbs could fall but would not damage equipment. A be wall is southwest of pump and is judged not close enough to interfer with pump during seismic event.	? Plock
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	_
	Status: Y⊠ N⊟ U⊟
Seismic Walkdown Checklist (SWC) SWEL2- 002	
Equipment ID No. <u>P-51B</u> Equip. Class <sup>1</sup> <u>5, HORIZON</u>	TAL PUMPS
Equipment Description SPENT FUEL POOL COOLING PUMP	
10. Based on the above seismic interaction evaluations, is equipment of potentially adverse seismic interaction effects?	t free Y⊠ N□ U□
	·
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that of adversely affect the safety functions of the equipment?	could Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	9 ,00
Evaluated by: Alex Smerch Mer Long	D-1 40/04/40
Evaluated by: Alex Smerch	Date: 10/04/12
Paul Klein V	10/04/12

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 4 of 4	
	Status: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC) SWEL2-	
Equipment ID No. <u>P-51B</u> Equip. Class	5, HORIZONTAL PUMPS
Equipment Description SPENT FUEL POOL COOLING	PUMP
Photographs	
This photo contains security-sensitive information. It is available for review at the Palisades Nuclear Plant.  Note: P-51B	Note: Bolt with limited engagement with nut

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FOR
Sheet 1 of 4	
Seismic Walkdown Checklist (SWC) SWEL2- 003	Śtatus: Y⊠ N⊡ U⊡
Equipment ID No. <u>P-82</u> Equip. Class <sup>1</sup> <u>5, HORIZON</u>	NTAL PUMPS
Equipment Description SFP RECIRCULATION BOOSTER PUMP	•
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>115</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walk SWEL. The space below each of the following questions may be used t findings. Additional space is provided at the end of this checklist for doc	to record the results of judgments and
Anchorage  1. Is the anchorage configuration verification required (i.e., is the ite of the 50% of SWEL items requiring such verification)?	em one Y⊠ N□
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardward Anchorage consists of 4 anchors through a ~1 foot high concrete pedestal connected to the pump skid.</li> </ol>	
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>No significant corrosion.</li> </ol>	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors?  The pump is located on a concrete pedestal on top of the concres slab. There was concrete chipped off one of the corners of the pout it did not pass through any of the anchor bolts nor did it have exposed reinforcement and was thus deemed not a concern. (Suphoto)	pedestal e any

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

	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4  Seismic Walkdown Checklist (SWC) <u>SWEL2- 003</u>	Status: Y⊠ N⊡ U⊡
Equipment ID No. <u>P-82</u> Equip. Class <sup>1</sup> <u>5, HORIZONTAL PU</u>	IMPS
Equipment Description SFP RECIRCULATION BOOSTER PUMP	
<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> <li>An anchorage configuration check was performed using PLP SEWS for P-82 Sheets 3 and 5.</li> </ol>	Y⊠ N□ U□ N/A□
Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structures?         The pump is not a soft target.     </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?  A 12" block wall just east of pump does not have any apparent designation on the wall itself and nothing shown on drawing C-104 stating whether it is qualified or unqualified. If it is unqualified it could have detrimental effects on P-82. Licensing basis evaluation, LB-07, has been initiated for this condition on EN-DC-168-ATT-9.8. CR-PLP-2012-06854 has been initiated as well.	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? A 12" block wall just east of pump does not have any apparent designation on the wall itself and nothing shown on drawing C-104 stating whether it is qualified or unqualified. If it is unqualified it could have detrimental effects on P-82. Licensing basis evaluation, LB-07, has been initiated for this condition on EN-DC-168-ATT-9.8.1. CR-PLP-2012-06854 has been initiated as well.	Y□ N⊠ U□

ATTACHMENT 9.6	SEISI	MIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4		
Seismic Walkdown Checklist (SWC) SWEL2- 003		Status: Y⊠ N□ U□
Equipment ID No. <u>P-82</u> Equip. Class <sup>1</sup> <u>5, HORIZ</u>	ONTAL PU	MPS
Equipment Description SFP RECIRCULATION BOOSTER PUMP		
Other Adverse Conditions		
11. Have you looked for and found no other seismic conditions the adversely affect the safety functions of the equipment?	at could	Y⊠ N□ U□
Comments (Additional pages may be added as necessary)		
Evaluated by: Alex Smerch		Date: <u>10/04/2012</u>
Paul Klein Forl & Llin		10/04/2012

**ATTACHMENT 9.6** 

SEISMIC WALKDOWN CHECKLIST FORM

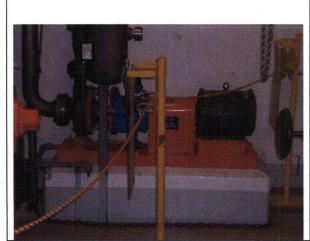
Sheet 4 of 4

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL2- 003

Equipment ID No. <u>P-82</u> Equip. Class 1 <u>5, HORIZONTAL PUMPS</u>

Equipment Description SFP RECIRCULATION BOOSTER PUMP



Note: P-82



Note: Chipped concrete on corner of pump pedestal.

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 1 of 4	
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC) <u>SWEL2- 004</u>	
Equipment ID No. <u>E-53A</u> Equip. Class <sup>1</sup> <u>21, TANKS AND HE</u>	AT EXCHANGERS
Equipment Description SPENT FUEL POOL HEAT EXCHANGER	
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>115</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	the results of judgments and
<u>Anchorage</u>	
1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?	Y⊠ N□
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?         The anchorage consists of two concrete pedestals with two bolts in each.     </li> </ol>	Y⊠ N□ U□ N/A□
Is the anchorage free of corrosion that is more than mild surface oxidation?      There is not significant corrosion on the anchorage.	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors?  The pedestals supporting the heat exchanger are located directly on top of the concrete floor slab.	Y⊠ N□ U□ N/A□

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

ATTACHMENT 9.6 SEIS	MIC WALKDOWN CHECKLIST FORM
Sheet 2 of 4	
Seismic Walkdown Checklist (SWC) SWEL2- 004	Status: Y⊠ N□ U□
Equipment ID No. <u>E-53A</u> Equip. Class <sup>1</sup> <u>21, TANKS AND HE</u> .	AT EXCHANGERS
Equipment Description SPENT FUEL POOL HEAT EXCHANGER	
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.) The Anchorage configuration has been checked using drawings M-9 Sheet 2(1) Rev. 9 and C-101, and was found to be in compliance with drawings.	Y⊠ N□ U□ N/A□
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?  The Heat Exchanger 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? A nearby block wall is qualified by drawing C-104.	Y⊠ N□ U□ N/A□
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y⊠ N□ U□

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 3 of 4	
Seismic Walkdown Checklist (SWC) SWEL2- 004	Status: Y⊠ N□ U□
Equipment ID No. <u>E-53A</u> Equip. Class <sup>1</sup> <u>21, TANKS A</u>	ND HEAT EXCHANGERS
Equipment Description SPENT FUEL POOL HEAT EXCHANGER	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that conditions adversely affect the safety functions of the equipment?	ould Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Drawing M-6 and M-44 incorrectly show that E-53A is on top of E- initiated for this.	-53B; CR-PLP-2012-06577 has been
Evaluated by: Alex Smerch	Date: <u>10-4-12</u>
Paul Klein Foul & Llein	10-4-12

ATTACHMENT 9.6			SEISMIC WA	LKDOWN CH	ECKLIST FORM
Sheet 4 of 4			90 (1) (1) 900 (800 80	300	
			St	atus: Y⊠	$N \square U \square$
Seismic Walkdown Checklist (SWC) <u>SWE</u>	L2- 004				
Equipment ID No. <u>E-53A</u> Equip.	Class <sup>1</sup> 21, TANK	(S AND	HEAT EX	CHANGERS	3
Equipment Description SPENT FUEL POOL HEAT	EXCHANGER			12 23 <del>44 45</del>	
Photographs					
=	22				181 188 188
A Long Committee of the	<del>5-</del>				
and the same of th					
Note: E-53A	Note:			18	
= =					
= = = = = = = = = = = = = = = = = = = =					
Note: <i>E-53A</i>	Note:				

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 1 of 5	
Seismic Walkdown Checklist (SWC) SWEL2- 005	Status: Y⊠ N⊡ U⊡
Equipment ID No. <u>E-53B</u> Equip. Class <sup>1</sup> <u>21, TANKS A</u>	ND HEAT EXCHANGERS
Equipment Description SPENT FUEL POOL HEAT EXCHANGER	
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>115</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist  This checklist may be used to document the results of the Seismic Walko SWEL. The space below each of the following questions may be used to findings. Additional space is provided at the end of this checklist for documents.	record the results of judgments and
<u>Anchorage</u>	
<ol> <li>Is the anchorage configuration verification required (i.e., is the iter of the 50% of SWEL items requiring such verification)?</li> </ol>	m one Y⊠ N□
2. Is the anchorage free of bent, broken, missing or loose hardware' E-53A is anchored to the top of Heat Exchanger E-53B. However was one approximately 3/4" bolt that did not have full thread engagement with its respective nut on the south side of the heat exchanger. Due to the fact that approximately only 2 threads were engaged, the failure limit state of the bolt most likely remained unchanged and therefore its capacity would remain unchanged. Therefore this is not seen as an operability concern at this time be 03 on EN-DC-168-ATT-9.8 has been initiated to follow up. CR-Pl 2012-7083 has been initiated. (See Photos)	t, there e not
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Y⊠ N□ U□ N/A□
There is mild rust around the bolts and between the mounting pla surfaces that appears to have been due to water dripping down the of the heat exchanger. Despite mild rust, bolt integrity appears to remain intact without capacity reduction. (See Photos)	
4. Is the anchorage free of visible cracks in the concrete near the anchors? There is no concrete anchorage as it is anchored to E-53A.	Y□ N□ U□ N/A⊠

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

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 2 of 5	
Seismic Walkdown Checklist (SWC) SWEL2- 005	Status: Y⊠ N□ U□
Equipment ID No. <u>E-53B</u> Equip. Class <sup>1</sup> <u>21, TANKS</u>	AND HEAT EXCHANGERS
Equipment Description SPENT FUEL POOL HEAT EXCHANGER	
<ol> <li>Is the anchorage configuration consistent with plant documentat (Note: This question only applies if the item is one of the 50% fo an anchorage configuration verification is required.)</li> <li>This anchorage configuration was verified using C-101 Sheet 0.9 9 Sheet 1.</li> </ol>	or which
6. Based on the above anchorage evaluations, is the anchorage free potentially adverse seismic conditions?	ee of Y□ N⊠ U□
Interaction Effects	
<ol> <li>Are soft targets free from impact by nearby equipment or structu The Heat Exchanger is not a soft target.</li> </ol>	ures? Y□ N□ U□ N/A⊠
Are overhead equipment, distribution systems, ceiling tiles and I and masonry block walls not likely to collapse onto the equipme     The block wall next to the heat exchanger is qualified by drawing     104.	nt?
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
10. Based on the above seismic interaction evaluations, is equipme of potentially adverse seismic interaction effects?	nt free Y⊠ N□ U□

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ATTACHMENT 9.6			Se	ISMIC WALKDOWN CHE	ECKLIST FORM
Sheet 3 of 5				Status: Y⊠	NU UU
Seismic Walkd	own Checklist (S	WC) SWEL2-	005		
Equipment ID No.	. <u>E-53B</u>	Equip. Cla	ss <sup>1</sup> 21, TANKS AND F	HEAT EXCHANGERS	
Equipment Descr	iption <u>SPENT FUE</u>	L POOL HEAT EX	XCHANGER		
Other Adverse C	onditions				
	looked for and found affect the safety fund		c conditions that could pment?	Y⊠ N□ U□	
Comments (Addi	tional pages may be	e added as neces	sary)		
		24 24 Mark		NAME AND	
Evaluated by: <u>Ale</u>	x Smerch	Lain X lain		Date: 10-4-12	
	Pal	20:	200 Gyra 10 1919 10 1919	THE RESERVE THE PROPERTY OF TH	
Pau	ul Klein	- Trend		10-4-12	- 10

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ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y⊠ N□ U□

Seismic Walkdown Checklist (SWC) SWEL2- 005

Equipment ID No. <u>E-53B</u> Equip. Class 1 <u>21, TANKS AND HEAT EXCHANGERS</u>

Equipment Description SPENT FUEL POOL HEAT EXCHANGER



Note: E-53B



Note: Rusted bolt lacking full thread engagement (bottom view).

ATTACHMENT 9.6	SEISMIC WALKDOWN CHECKLIST FORM
Sheet 5 of 5	Status: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC) <u>SWEL2- 005</u>	<u> </u>
Equipment ID No. <u>E-53B</u> Equip. Class <sup>1</sup> <u>21, T.</u>	ANKS AND HEAT EXCHANGERS
Equipment Description SPENT FUEL POOL HEAT EXCHANGE	ER
Note: Rusted Bolt with lack of thread engagement (side view).	

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 3  Area Walk-By Checklist (AWC)AWC- 01_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>116A, ENT</u>	TIRE ROOM
SWEL Components: <u>SWEL1- 010, 044, 091</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near of space below each of the following questions may be used to record the results Additional space is provided at the end of this checklist for documenting other of the control of the co	of judgments and findings.
1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AWC) <u>AWC- 01</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area 1 <u>116A, ENTIF</u>	RE ROOM
SWEL Components: <u>SWEL1- 010, 044, 091</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Fluorescent lights noted overhead which are uncaged, however there is no significant interaction concern due to low mass and stiffness of source relative to targets in the area.	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?  There is overhead critical Service Water piping overhead along the east side of the room. This piping is flexible and is supported seismically and is not an interaction concern.	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? A tool rack with heavy tools is located at the northwest corner of the room. Tools on the rack are unrestrained in the lateral direction away from the wall, however, the tools are judged not to be a credible or significant interaction.	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 3  Area Walk-By Checklist (AWC) <u>AWC- 01</u>	Status: Y⊠ N□ U□
Location: Bldg. AUX Floor El. 590 Room, Area 116A, ENTIL	RE ROOM
SWEL Components: <u>SWEL1- 010, 044, 091</u>	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?  Comments (Additional pages may be added as necessary)	Y⊠ N□ U□
Evaluated by: Kevin Bessell Lin Band  John Kao  John Kao	Date: <u>10/3/2012</u>

ATTACHMENT 9.7			AREA WALK-BY CHECKLIST
Sheet 1 of 3  Area Walk-By Checkli	ist (AWC)AW(	C- 02	Status: Y⊠ N□ U□
Location: Bldg. AUX	Floor El. <u>590</u>	Room, Area <sup>1</sup> 146, EN	NTIRE ROOM
SWEL Components:	SWEL1- 103		
space below each of the	ed to document the re following questions m		ear one or more SWEL items. The sults of judgments and findings. her comments.
	e seismic conditions (	ea appear to be free of if visible without necessarily	Y⊠ N□ U□ N/A□
Does anchorage of significant degrad		rea appear to be free of	Y⊠ N□ U□ N/A□
raceways and HV seismic conditions	AC ducting appear to s (e.g., condition of su	loor, do the cable/conduit be free of potentially advers apports is adequate and fill nside acceptable limits)?	Y⊠ N□ U□ N/A□ se

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AWC)AWC- 02_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>146, ENTIRE</u>	ROOM
SWEL Components: SWEL1- 103	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
Fluorescent light fixture noted overhead which is not a credible or significant seismic interaction with other components in the room.	
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? There are small diesel oil spots noted on the floor. These spots are small and judged not a probable ignition source or fire hazard.	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 3  Area Walk-By Checklist (AWC) <u>AWC- 02</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>146, ENTIR</u>	E ROOM
SWEL Components: SWEL1- 103	
Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	·
Evaluated by: Kevin Bessell Lin Bull  John Kao  John Kao	Date: <u>10/2/2012</u>
John Kao	10/2/2012

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 3  Area Walk-By Checklist (AWC)AWC- 03	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area <sup>1</sup> <u>300, ENTIRE R</u>	OOM
SWEL Components: <u>SWEL1- 036, 038, 043, 084, 108, 110</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near one of space below each of the following questions may be used to record the results of junctional space is provided at the end of this checklist for documenting other comments.	udgments and findings.
Does anchorage of equipment in the area appear to be free of y potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	′⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of	′⊠ N□ U□ N/A□
significant degraded conditions?	
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	′⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Area Walk-By Checklist (AWC)AWC-03	ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?  Fluorescent light fixture hanging from chains and connected with S hooks note overhead of flexible conduit over V-26A at northwest side of room. Falling of fixture could sever conduit, however, S hooks are crimped and chains are judged to support fixture adequately.  5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?  There is a minor leak in the roof that is causing water to drip onto V-26A unit. Brown stains noted on ducting to V-26A and a spout catcher that leads to a bucket is noted hanging from the duct. This leak is judged to be minor due to surface cracks in the roof, therefore okay.  6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?  7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Sheet 2 of 3  Area Walk-By Checklist (AWC)AWC- 03_	Status: Y⊠ N□ U□
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?  Fluorescent light fixture hanging from chains and connected with S hooks note overhead of flexible conduit over V-26A at northwest side of room. Falling of fixture could sever conduit, however, S hooks are crimped and chains are judged to support fixture adequately.  5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?  There is a minor leak in the roof that is causing water to drip onto V-26A unit. Brown stains noted on ducting to V-26A and a spout catcher that leads to a bucket is noted hanging from the duct. This leak is judged to be minor due to surface cracks in the roof, therefore okay.  6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?  7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area 300, ENTIRE	ROOM
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?  Fluorescent light fixture hanging from chains and connected with S hooks note overhead of flexible conduit over V-26A at northwest side of room. Falling of fixture could sever conduit, however, S hooks are crimped and chains are judged to support fixture adequately.  5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?  There is a minor leak in the roof that is causing water to drip onto V-26A unit. Brown stains noted on ducting to V-26A and a spout catcher that leads to a bucket is noted hanging from the duct. This leak is judged to be minor due to surface cracks in the roof, therefore okay.  6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?  7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	SWEL Components: SWEL1- 036, 038, 043, 084, 108, 110	
interactions that could cause flooding or spray in the area?  There is a minor leak in the roof that is causing water to drip onto V-26A unit. Brown stains noted on ducting to V-26A and a spout catcher that leads to a bucket is noted hanging from the duct. This leak is judged to be minor due to surface cracks in the roof, therefore okay.  6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?  7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Fluorescent light fixture hanging from chains and connected with S hooks note overhead of flexible conduit over V-26A at northwest side of room. Falling of fixture could sever conduit, however, S hooks are	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	interactions that could cause flooding or spray in the area?  There is a minor leak in the roof that is causing water to drip onto V-26A unit. Brown stains noted on ducting to V-26A and a spout catcher that leads to a bucket is noted hanging from the duct. This leak is	Y⊠ N□ U□ N/A□
interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?		Y⊠ N□ U□ N/A□
	interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 3  Area Walk-By Checklist (AWC) <u>AWC- 03</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area 300, ENTI	RE ROOM
SWEL Components: <u>SWEL1- 036, 038, 043, 084, 108, 110</u>	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y⊠ N□ U□
	,
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell Lin Burk	Date: 10/3/2012
Evaluated by: Kevin Bessell Limsthy Cocker  Tim Crocker	10/3/2012
Tim Groundi V	10/0/2012

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 4  Area Walk-By Checklist (AWC)AWC- 04	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>116</u>	
SWEL Components: <u>SWEL1- 060, 031,100, 105, 083, 033, 082</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near on space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other contents.	f judgments and findings.
<ol> <li>Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?</li> <li>Steam supply to room heater hanger slightly bowed(see photo).         Supporting 15 feet of 2" steam piping weighting less than 200 pounds. Rod looked to be 3/8" inch. Hanger was not observed to have any physical signs of degredation as a result of its bowing and would not have significant impact on vertical downward (tension) capacity. Upward vertical forces can be neglected as seismic acceleration is .3G (per Tech Spec C-175(Q) App. B) and not enough to counter dead weight.</li> </ol>	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet/from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 4  Area Walk-By Checklist (AWC)AWC- 04_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>116</u>	
SWEL Components: <u>SWEL1- 060, 031,100, 105, 083, 033, 082</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Wooden box near K-1A Gasoline compressor engine does not have significant source of ignition as compressor doesn't actively carry fuel.	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 4  Area Walk-By Checklist (AWC)AWC- 04_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>116</u>	
SWEL Components: <u>SWEL1- 060, 031,100, 105, 083, 033, 082</u>	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Evaluated by: Alex Smerch Mer Loin	Date: 10/03/2012
Paul Klein Foul & Llein	10/03/2012

ATTACHMENT 9.7				AREA WALK-BY CHECKLIST
Sheet 4 of 4 Area Walk-By Checkli	st (AWC)AWC-	04_		Status: Y⊠ N□ U□
Location: Bldg. AUX	Floor El. <u>590</u>	Room, Area <sup>1</sup> <u>11</u>	16	
SWEL Components:	SWEL1- 060, 031	,100, 105, 083, 033	3, 082	
Photographs			4 200 10 20	
Note: Bowed Hanger R Supply to Room Heater	Rod Supporting Steam	Note:		

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 6  Area Walk-By Checklist (AWC) <u>AWC- 05</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>115</u>	
SWEL Components: <u>SWEL2- 001, 002, 003, 004, 005</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near space below each of the following questions may be used to record the results Additional space is provided at the end of this checklist for documenting other	of judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?  The chain from an overhead light is suspended from the overhead cable tray in north end of room 115 (see photo). Uncovered wires observed at the end of the tray were later determined to be grounding wiring for the cable tray and deemed to not be of concern.	Y□ N⊠ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 6  Area Walk-By Checklist (AWC)AWC- 05_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>115</u>	
SWEL Components: <u>SWEL2- 001, 002, 003, 004, 005</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 6  Area Walk-By Checklist (AWC)AWC- 05	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>115</u>	
SWEL Components: <u>SWEL2- 001, 002, 003, 004, 005</u>	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? There is a pipe support consisting of a steel angle extending from the west wall just west of E-53B that has a gap between the support and its associated pipe. The pipe is vertically restrained by its U-Bolt (see photo). Further evaluation is required and licensing basis evaluation, LB-10, has been created. CR-PLP-2012-06650 has been generated for this condition.	Y□ N⊠ U□
There is a 12" blockwall just west of Column Line G, between Column Lines 26 and 28 and just East of P-82 that is not designated as qualified or unqualified on either the physical wall itself nor C-104. If it is unqualified it has potential to be an adverse seismic condition for equipment in its immediate vicinity. Further evaluation is required and licensing basis evaluation, LB-11, has been created. CR-PLP-2012-06854 has been generated for this condition.	
There is an overhead spring can support in room 115 hanging from the ceiling whose associated spring can body is askew and appears to be taking a load. Further evaluation is required and licensing basis evaluation, LB-09, has been created. WR288113 has been generated to further inspect the spring can.	
There is a lighting fixture in the north end of the room suspended by an open S-hook in the area. According to C-175(Q) the peak acceleration in the vertical direction is 0.15G OBE at 2% damping. Because the G value is less than 1, it shows that the light fixture would never have an acceleration coupled with its dead weight resulting in a net upward force. Due to this, the light fixture is judged to not have be a potentially adverse seismic condition, but rather a maintenance best practice issue. (See Photo). A licensing basis evaluation, LB-08, has been created. See CR-PLP-2012-06670.	
Comments (Additional pages may be added as necessary)	

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ATTACHMENT 9.7	AF	REA WALK-BY CHECKLIST
Sheet 4 of 6	100 101 101 201 201 201	Status: Y⊠ N□ U□
Area Walk-By Checklist (AWC) <u>AWC- 05</u>		
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>115</u>		
SWEL Components: <u>SWEL2- 001, 002, 003, 004, 005</u>		
Evaluated by: Alex Smerch	Date:	10/04/2012
Paul Klein Foul & Lein		10/04/2012

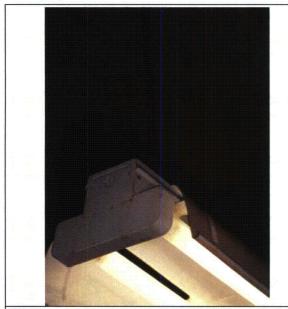
ATTACHMENT 9.7

Sheet 5 of 6

Area Walk-By Checklist (AWC) AWC- 05

Location: Bldg. AUX Floor El. 590 Room, Area 115

SWEL Components: <u>SWEL2- 001, 002, 003, 004, 005</u>



Note: Lighting Fixture Suspended by open S-Hook



**Note:** Loose Uncrimped S-Hook Hanging From Cable Tray





ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 5  Area Walk-By Checklist (AWC) <u>AWC- 06</u>	Status: Y⊠ N⊡ U⊡
Location: Bldg. <u>AUX</u> Floor El. <u>570</u> Room, Area <sup>1</sup> <u>005</u>	· · · · · · · · · · · · · · · · · · ·
SWEL Components: <u>SWEL1- 017, 018, 021, 025, 026, 029, 041, 079, 098, 099</u>	063, 064, 067, 068, 077, 078,
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near space below each of the following questions may be used to record the result Additional space is provided at the end of this checklist for documenting other.	ults of judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
<ol> <li>Does anchorage of equipment in the area appear to be free of significant degraded conditions?         Anchorage of Air Regulator for I/P-0736 along the west wall has degraded anchorage due to corrosion most likely from water damage over time. (See photo). Further evaluation is required and licensing basis evaluation, LB-12, has been created. CR-PLP-2012-06643 has been initiated.     </li> </ol>	
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7				AREA WALK-	BY CHECKLIST
Sheet 2 of 5  Area Walk-By Ch	ecklist (AWC)	AWC- 06		Status: Y	⊠ N□ U□
Location: Bldg. AL	IX Floor El.	570 Roo	om, Area <sup>1</sup> <u>005</u>		
SWEL Componer	nts: <u>SWEL1- 01</u> 079, 098, 0		25, 026, 029, 041, 06	3, 064, 067, 068,	<u>077, 078,</u>
	ar that the area is fre ctions with other equ ?			Y⊠ N□ U□	N/A
	ar that the area is fre			Y⊠ N□ U□	N/A□
	ar that the area is fre hat could cause a fir		dverse seismic	Y⊠ N□ U□ I	N∕A□
interactions a	ar that the area is frea associated with hous ipment, and tempora	ekeeping practic	ndverse seismic es, storage of e.g., scaffolding, lead	Y⊠ N□ U□ I	N/A

ATTACHMENT 9.7			A	REA WALK-B	Y CHECKLIST	
Sheet 3 of 5  Area Walk-By Checklist	(AWC) AWC- 06	(O) ANG OG		Status: Y⊠ N□ U□		
Area waik-by Checklist	AVVC)AVVC- 00					
Location: Bldg. AUX	Floor El. <u>570</u>	Room, Area <sup>1</sup> <u>005</u>				
		025, 026, 029, 041, 06	3, 064,	067, 068, 0	077, 078 <u>,</u>	
	79, 098, 099					
Have you looked for a adversely affect the sales.	and found no other seism afety functions of the equ		Y⊠ I	V□ U□		
	served to be slightly bent	but because it utilizes a ne pipe and straighten out				
	ion. This type of hanger r					
	on and therefore should					
direct tension. The be	nd would not result in a s	significant loss of section				
	erefore not have a signifi					
	ore the bend was judged	not to be a seismic				
concern. (See photo)						
There is a nine hange	or supported by a apring (	canister at the ceiling slab				
	e to contact with a pipe th					
	ear valve MV-CC197 (Se					
fact that spring canist	er supports are not used	in seismic analysis and				
	e heat exchanger compa					
	eraction was not judged to	o be significant nor a				
potentially adverse se	ismic condition.					
Comments (Additional page	s may be added as neces	ssary)				
	1)					
Evaluated by: Alex Smerch	he has		Date:	10/09/12		
Evaluated by: <u>Alex Smerch</u> Paul Klein			_ Date.	10/03/12		
(F	al & Lein					
Paul Klein	8 12.1			10/09/12		
. ==39			-			

**ATTACHMENT 9.7 AREA WALK-BY CHECKLIST** 

Sheet 4 of 5

Status: Y⊠ N□ U□

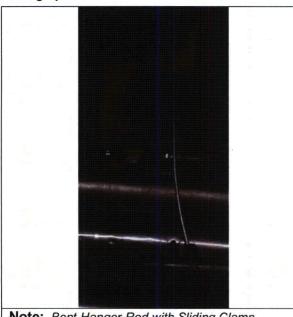
Area Walk-By Checklist (AWC) \_\_\_\_AWC- 06

Location: Bldg. AUX Floor El. <u>570</u>

\_\_\_ Room, Area<sup>1</sup> 005

SWEL1- 017, 018, 021, 025, 026, 029, 041, 063, 064, 067, 068, 077, 078, **SWEL Components:** 

079, 098, 099



Note: Bent Hanger Rod with Sliding Clamp



Note: Pipe Hanger Supported by Spring Cannister Bent Around Pipe (Overview)

ATTACHMENT 9.7 AREA WALK-BY CHECKLIST

Sheet 5 of 5

Status: Y⊠ N□ U□

Area Walk-By Checklist (AWC) \_\_\_\_AWC- 06

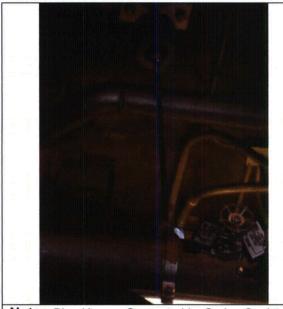
Location: Bldg. AUX Floor El. 570

Room, Area<sup>1</sup> 005

**SWEL Components:** 

SWEL1- 017, 018, 021, 025, 026, 029, 041, 063, 064, 067, 068, 077, 078,

079, 098, 099



**Note:** Pipe Hanger Supported by Spring Canister Bent Around Pipe (close-up)



Note: Degraded Wall Due to Water Damage

ATTACHMENT 9.7	AREA WALK-BY CHECKLIS
Sheet 1 of 3  Area Walk-By Checklist (AWC)AWC- 07	Status: Y⊠ N⊟ U⊑
Location: Bldg. <u>AUX.</u> Floor El. <u>644</u> Room, Area <sup>1</sup> <u>808</u>	
SWEL Components: <u>SWEL1- 070, 071, 107</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near one space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other co	f judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AWC) <u>AWC- 07</u>	Status: Y⊠ N□ U□
Location: Bldg. AUX. Floor El. 644 Room, Area 808	
SWEL Components: <u>SWEL1- 070, 071, 107</u>	-
Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?  The scaffold accessing the area had an expired tag. The SWE's were informed by the SIRW Work Superviser, Brian Rigozzi, that the scaffold paperwork is up to date but the revised tag is not in place. He ensured correct tag will be displayed.	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	FACHMENT 9.7 AREA WALK-BY		CHECKLIST		
Sheet 3 of 3 Area Walk-By C	hecklist (AWC) _	AWC- 07		Status: Y	⊠ N□ U□
Location: Bldg.	AUX. Floor El.	<u>644</u> Roon	n, Area <sup>1</sup> <u>808</u>		
SWEL Compone	ents: SWEL1- 0	70, 071, 107			
	ooked for and found affect the safety funct			Y⊠ N□ U□	
Comments (Addit	ional pages may be a	added as necessary	')		The state of the s
					in the state of th
Evaluated by: <u>Alex</u>	Smerch Mee	lan		_ Date: <u>10-10-201</u>	2
<u>Pau</u>	I Klein Porly	X. lein		10-10-201	2

ATTACHMENT 9.7			AREA WALK-BY CHECKLIST
Sheet 1 of 4			Status: Y⊠ N⊟ U⊟
Area Walk-By Checklist (	AWC) <u>AWC- 08</u>	_	<del>-</del>
Location: Bldg. TURB	Floor El. <u>590</u>	Room, Area <sup>1</sup> <u>OUTSIDE, A</u> <u>T-2, T-7 AN</u>	AREA INSIDE FENCE AROUND D T-81
SWEL Components: S	WEL1- 072, 073, 10	2	
Instructions for Completing	Checklist		
This checklist may be used to space below each of the follow Additional space is provided a	wing questions may be	used to record the results	of judgments and findings.
Does anchorage of eq potentially adverse se opening cabinets)?		pear to be free of ble without necessarily	Y⊠ N□ U□ N/A□
Does anchorage of eq significant degraded c		pear to be free of	Y⊠ N□ U□ N/A□
seismic conditions (e.g	ducting appear to be fro g., condition of support ys appear to be inside	ee of potentially adverse s is adequate and fill	Y□ N□ U□ N/A⊠

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described.

<sup>1</sup> This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 4  Area Walk-By Checklist (AWC)AWC- 08	Status: Y⊠ N□ U□
Location: Bldg. <u>TURB</u> Floor El. <u>590</u> Room, Area OUTSIDE, Al <u>T-2, T-7 AND</u>	REA INSIDE FENCE AROUND T-81
SWEL Components: <u>SWEL1- 072, 073, 102</u>	
<ul> <li>4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?  A light and speaker system is noted on the top of the turbine building. Mounting of these fixtures is unknown and is considered a credible and significant interaction to instrumentation in the area. Further evaluation is required. Licensing basis evaluation, LB-16, has been initiated. Block walls observed to the east of the equipment. Block wall is only about 3'-0" and judge to be okay due to exterior wall based on wind loading being larger compared to seismic loading and small cantilever height.  Adjacent tanks T-81 and T-7 pose interaction concerns. T-81 is documented in SEWS Sht. 1 of 4 as posing no interaction threat. Tank T-7 is smaller and sufficiently anchored and judged not to be credible interaction.</li> <li>5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?</li> </ul>	Y N U N/A
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 4  Area Walk-By Checklist (AWC)AWC- 08_	Status: Y⊠ N⊡ U⊡
Location: Bldg. <u>TURB</u> Floor El. <u>590</u> Room, Area OUTSIDE, A <u>T-2, T-7 AND</u>	REA INSIDE FENCE AROUND 0 T-81
SWEL Components: <u>SWEL1- 072, 073, 102</u>	
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell Li-Bull	Date: 10/10/2012
John Kao	10/10/2012

Sheet 4 of 4  Area Walk-By Checklist (AWC)AWC- 08	Status: Y⊠ N□ U□
Location: Bldg. <u>TURB</u> Floor El. <u>590</u> Room, Area 1	OUTSIDE, AREA INSIDE FENCE AROUND T-2, T-7 AND T-81
SWEL Components: <u>SWEL1- 072, 073, 102</u>	
Photographs	
This photo contains security-sensitive information. It is available for review at the Palisades Nuclear Plant.	
Note: Overhead light and speaker system on top of Turbine building east of component. View is looking east from the road.	

ATTACHMENT 9.7	AREA WALK-BY CHECKLIS
Sheet 1 of 3  Area Walk-By Checklist (AWC) AWC- 09	Status: Y⊠ N□ U□
Location: Bldg. <u>TURBINE</u> Floor El. <u>590</u> Room, Area 1 <u>136</u>	
SWEL Components: <u>SWEL 1 – 022, 023, 024, 028, 030</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near o space below each of the following questions may be used to record the results Additional space is provided at the end of this checklist for documenting other of the control of the con	of judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3	
Area Walk-By Checklist (AWC)AWC- 09	Status: Y⊠ N□ U□
Location: Bldg. <u>TURBINE</u> Floor El. <u>590</u> Room, Area 136	
SWEL Components: <u>SWEL 1 – 022, 023, 024, 028, 030</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
<ol> <li>Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Screenhouse service water booster pump valve is leaking. Nearby drain is catching the runoff. CR-PLP-2012-6488 is already in place to address this known issue.</li> </ol>	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? The ladders are adequately stored.	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 3  Area Walk-By Checklist (AWC)AWC- 09	Status: Y⊠ N□ U□
Location: Bldg. <u>TURBINE</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>136</u>	
SWEL Components: <u>SWEL 1 – 022, 023, 024, 028, 030</u>	3990
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
11.	
Evaluated by: Alex Smerch	Date: <u>10-12-12</u>
Evaluated by: Alex Smerch Mer Long Paul Klein	10-12-12
I GGI INOIII -	

ATTACHMENT 9.7	AREA WALK-BY CHECKLIS
Sheet 1 of 3  Area Walk-By Checklist (AWC)AWC- 10	Status: Y⊠ N⊡ U⊡
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area 1 <u>121, ENTIRE</u>	ROOM
SWEL Components: SWEL1- 001	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near on space below each of the following questions may be used to record the results o Additional space is provided at the end of this checklist for documenting other co	f judgments and findings.
<ol> <li>Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?</li> </ol>	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□
At east end of room over EC-33 there is a conduit and support touching the HVAC exhaust shroud. Interaction is not credible with component since the conduit is in the way of the shroud and ducting. The front side switches of EC-33 are also protected with a plexiglass covering making the interaction also insignificant.  There are bulletin boards hanging along the north wall which are a credible interaction source if they should fall to the ground and then overturn onto the adjacent cabinets EC-40 possible hitting a switch. These boards were tug tested and okay.	

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AWC)AWC- 10_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>121, ENTIRE</u>	ROOM
SWEL Components: SWEL1- 001	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? A fluorescent light fixture in the southwest corner of the room is mounted over level gauge, MV-CA10277, and light inside fixture is caged with 2 plastic tie wraps. S. Podgurski of Entergy Operations stated component is not required for safe shutdown. Possible interaction with fluorescent light fixture judged to be okay.	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?  Drawing rack noted in southwest corner of the room which is attached to the wall. Drawing rack has the ability to swing open and hit adjacent cabinet EB-08. EB-08 is non-safety related and does not contain essential relays therefore this interaction is not a concern and judged to be okay.	Y⊠ N□ U□ N/A□

Sheet 3 of 3  Area Walk-By Checklist (AWC)AWC- 10_	Status: Y⊠ N□ U□
Location: Bldg. AUX Floor El. 590 Room, Area 121, ENTIRE I	ROOM
SWEL Components: SWEL1- 001	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?  Block wall along north side of the room. The wall is seismically qualified, C104.11/Q, per drawing C-104, Rev. 33.	Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell Lin Bull	Date: <u>10/9/2012</u> 10/9/2012

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 3  Area Walk-By Checklist (AWC)AWC- 11_	Status: Y⊠ N⊟ U⊟
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <sup>1</sup> <u>225</u>	A, ENTIRE ROOM
SWEL Components: SWEL1- 050, 094	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-B space below each of the following questions may be used to record the Additional space is provided at the end of this checklist for documenting	results of judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessary opening cabinets)?	Y⊠ N□ U□ N/A□ arily
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adviseismic conditions (e.g., condition of supports is adequate and for conditions of cable trays appear to be inside acceptable limits)?	verse

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7			AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AV	VC)AWC- 11_		Status: Y⊠ N□ U□
Location: Bldg. AUX F	loor El. <u>607</u> Room, A	rea <sup>1</sup> 225A, ENTIRE RC	ОМ
SWEL Components: SWE	L1- 050, 094		
	rea is free of potentially advers ther equipment in the area (e.		N□ U□ N/A□
	rea is free of potentially adversuse flooding or spray in the ar		N□ U□ N/A□
Does it appear that the a interactions that could ca	rea is free of potentially adversuse a fire in the area?	se seismic Y⊠	N□ U□ N/A□
interactions associated w	rea is free of potentially adversith housekeeping practices, sitemporary installations (e.g., s	orage of	N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 3  Area Walk-By Checklist (AWC)AWC- 11_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <sup>1</sup> <u>225A, ENTIF</u>	RE ROOM
SWEL Components: SWEL1- 050, 094	
<ol> <li>Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Seismically qualified block walls are noted in the room per drawing C- 107, Sh. 1, Rev. 28.</li> </ol>	Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell L. Bull  John Kao  John Kao	Date: <u>10/9/2012</u>

## PLP-RPT-12-00141, Rev. 0 ATTACHMENT D PAGE 41 OF 73

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 3	Status: Y⊠ N⊡ U⊡
Area Walk-By Checklist (AWC)AWC- 12_	
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <sup>1</sup> <u>225, ENTIRI</u>	E ROOM
SWEL Components: SWEL1- 051, 093	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near or space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other contents.	of judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N⊡ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

PLP-RPT-12-00141, Rev. 0 ATTACHMENT D PAGE 42 OF 73

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AWC) <u>AWC- 12</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <sup>1</sup> <u>225, ENTIR</u>	E ROOM
SWEL Components: SWEL1- 051, 093	
Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
	·
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Seismically qualified block walls are noted in the room per drawing C-107, Sh. 1, Rev. 28.	Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	

## PLP-RPT-12-00141, Rev. 0 ATTACHMENT D PAGE 43 OF 73

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 3	Status: Y⊠ N⊟ U⊟
Area Walk-By Checklist (AWC)AWC- 12	Status. F N N U
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <sup>1</sup> <u>22</u>	5, ENTIRE ROOM
SWEL Components: SWEL1- 051, 093	
Evaluated by: Kevin Bessell L. B.	
Evaluated by: Kevin Bessell	Date: 10/9/2012
John Kao	
John Kao	10/9/2012

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 4  Area Walk-By Checklist (AWC) <u>AWC-13</u>	Status: Y⊠ N⊟ U⊟
Location: Bldg. <u>TURBINE</u> Floor El. <u>571</u> Room, Area <sup>1</sup> <u>7 - AUX. FE</u>	EEDWATER PUMP RM.
SWEL Components: <u>SWEL 1- 019, 020, 074, 075, 076</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near or space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other control of the contro	of judgments and findings.
<ol> <li>Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?         The north support of the monorail beam above pump P-8B has a crack or gouge at the edge of the plate. The crack is minor and does not extend near the bolts connecting the monorail beam to the support and is therefore not a concern.     </li> </ol>	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 4  Area Walk-By Checklist (AWC)AWC- 13_	Status: Y⊠ N□ U□
Location: Bldg. <u>TURBINE</u> Floor El. <u>571</u> Room, Area <sup>1</sup> <u>7 - AUX. FE</u>	EDWATER PUMP RM.
SWEL Components: <u>SWEL 1- 019, 020, 074, 075, 076</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Pump drain lines are on floor and extend to the drain.	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?  ,	Y⊠ N⊡ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? The ladders are well stored.	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 4  Area Walk-By Checklist (AWC)AWC- 13	Status: Y⊠ N□ U□
Location: Bldg. <u>TURBINE</u> Floor El. <u>571</u>	Room, Area <sup>1</sup> 7 - AUX. FEEDWATER PUMP RM.
SWEL Components: SWEL 1- 019, 020, 0	074, 075, 076
Have you looked for and found no other sei adversely affect the safety functions of the e Flourescent light fixtures were supported with	equipment in the area? ith chains. Open S-Hooks
were noted at the upper end of some of the flourescent light fixtures. The connection of to the light fixture could not be seen.	
The peak vertical acceleration for the struct 175(Q). Since the peak vertical seismic acc acceleration is not great enough to overcon light fixture. No net uplift of the light fixture is chain supporting the light fixture is not expefrom the S-Hook.	celeration is less then 1g, the ne the dead weight of the is expected, therefore the
<u>Comments</u> (Additional pages may be added as ne	ecessary)
Evaluated by: Alex Smerch Mee Long	Date: <u>10-12-12</u>
Paul Klein Poul & Llein	10-12-12

**ATTACHMENT 9.7** 

**AREA WALK-BY CHECKLIST** 

Sheet 4 of 4

Status: Y⊠ N□ U□

Area Walk-By Checklist (AWC) \_\_\_\_AWC- 13

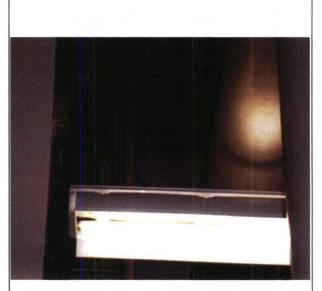
Location: Bldg. <u>TURBINE</u> Floor El. <u>571</u> Room, Area<sup>1</sup> <u>7 - AUX. FEEDWATER PUMP RM.</u>

SWEL 1- 019, 020, 074, 075, 076 **SWEL Components:** 

## **Photographs**



Note: Pump P-8B Monorail Beam North Support



Note: Fluorescent Light Fixture

ATTACHMENT 9.7	AREA WALK-BY CHECKLIS
Sheet 1 of 4  Area Walk-By Checklist (AWC)AWC- 14_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>123</u>	
SWEL Components: <u>SWEL1- 16, 62, 65, 66, 69, 96, 97</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near on space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other contents.	of judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 4	Status VM NO UO
Area Walk-By Checklist (AWC)AWC- 14_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>123</u>	
SWEL Components: <u>SWEL1- 16, 62, 65, 66, 69, 96, 97</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?  There is a CCW floor drain equipment box located on the floor with no real targets nearby and it has a low center of gravity. This this is not a concern.  There is also a SIRWT leak collection tank unanchored to the ground. This is not in the proximity of any targets to cause any damage.	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7				AREA WALK	-BY CHECKLIST
Sheet 3 of 4  Area Walk-By Check	klist (AWC)	AWC- 14_		Status: `	Y⊠ N□ U□
Location: Bldg. AUX	Floor El.	590 Room	n, Area <sup>1</sup> <u>123</u>		
SWEL Components	: <u>SWEL1- 16,</u>	62, 65, 66, 69,	96, 97		11/4
The state of the s	d for and found no the safety function lockwalls in the ar	ns of the equipme	nt in the area?	Y⊠ N□ U□	
<u>Comments</u> (Additional	pages may be ad	ded as necessary	)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Evaluated by: Alex Sm	erch Mer &			_ Date: 10/12/20	012
Paul Kle	Forly &	lein		10/12/20	012

ATTACHMENT 9.7			AREA W	AREA WALK-BY CHECKLIST	
Sheet 4 of 4			State	us: Y⊠ N□ U□	
Area Walk-By Checkl	ist (AWC)AWC- 14				
Location: Bldg. AUX	Floor El. <u>590</u> R	Room, Area <sup>1</sup> 123			
SWEL Components:	SWEL1- 16, 62, 65, 66,	69, 96, 97			
Photographs					
				181 181	
THE RESIDENCE AND		1		: 	
	The second secon	= =		<u>a</u>	
		7			
AL.		1 4 5			
	LINE				
Note: SIRWT Leak Co	ollection Tank	Note:	300 pm 1823 pm	SH SH	
		- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10		5 pt 465 547 547 547 547 547 547 547 547 547 54	

ATTACHMENT 9.7			AREÁ WALK-BY CHECKLIST
Sheet 1 of 4  Area Walk-By Checkli	ist (AWC)AWC	C- 15	Status: Y⊠ N⊡ U⊡
Location: Bldg. AUX	Floor El. <u>590</u>	Room, Area <sup>1</sup> 147, EN	ITIRE ROOM
SWEL Components:	SWEL1- 104		
space below each of the	ed to document the re- following questions m		ar one or more SWEL items. The ults of judgments and findings. er comments.
	e seismic conditions (	ea appear to be free of if visible without necessarily	Y⊠ N□ U□ N/A□
Does anchorage of significant degrade		ea appear to be free of	Y⊠ N□ U□ N/A□
raceways and HV seismic conditions	AC ducting appear to s (e.g., condition of su	oor, do the cable/conduit be free of potentially adverse pports is adequate and fill nside acceptable limits)?	Y⊠ N□ U□ N/A□ e

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 4  Area Walk-By Checklist (AWC)AWC- 15	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>147, ENTIRE</u>	ROOM
SWEL Components: SWEL1- 104	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?  The north side of LS-1453 is touching bolt for seismic bracing to tank. Interaction judged not to be significant since component is rigidly	Y⊠ N□ U□ N/A□
mounted in the north-south direction. Component movement will be in phase with T-25B. Component interaction is not a concern.  5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□ ·

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 4  Area Walk-By Checklist (AWC)AWC- 15_	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>147, ENTIF</u>	RE ROOM
SWEL Components: SWEL1- 104	
Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Community to daded do necessary)	
Evaluated by: Kevin Bessell Li-Ball	Date: <u>10/15/2012</u>
John Kao	10/15/2012

ATTACHMENT 9.7	AREA WALK-BY CHECKLIS
Sheet 4 of 4  Area Walk-By Checklist (AWC)AWC- 15_	Status: Y⊠ N⊟ U[
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Ro	om, Area <sup>1</sup> 147, ENTIRE ROOM
SWEL Components: SWEL1- 104	
Photographs	
<b>Note:</b> LS-1453 touching bolt for seismic bracing of tank.	Note:

ATTACHMENT 9.7			AREA WALK-BY CHECKLIS
Sheet 1 of 3  Area Walk-By Checklis	t (AWC)AWC-	<u>- 16</u>	Status: Y⊠ N⊟ U⊟
Location: Bldg. AUX	Floor El. <u>607</u>	Room, Area <sup>1</sup> 223	
SWEL Components:	SWEL1- 003, 011,	, 086, 087, 088, 089, 090	, 092
Instructions for Completi	ng Checklist		
space below each of the fo	llowing questions ma		ar one or more SWEL items. The ults of judgments and findings. er comments.
Does anchorage of potentially adverse opening cabinets)?		a appear to be free of visible without necessarily	Y⊠ N□ U□ N/A□
Does anchorage of significant degraded		a appear to be free of	Y⊠ N□ U□ N/A□
raceways and HVA seismic conditions (	C ducting appear to be e.g., condition of sup	oor, do the cable/conduit be free of potentially adverse ports is adequate and fill side acceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3	Status: Y⊠ N⊡ U⊡
Area Walk-By Checklist (AWC)AWC- 16	
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <sup>1</sup> <u>223</u>	
SWEL Components: <u>SWEL1- 003, 011, 086, 087, 088, 089, 090, 092</u>	2
Does it appear that the area is free of potentially adverse seismic	- Y⊠ N□ U□ N/A□
spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	
<ol> <li>Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?</li> <li>The fire line in this area appears to be adequately supported.</li> </ol>	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? There is a batterycharger in the area with a low center of gravity without any realistic targets in its vicinity.	Y⊠ N□ U□ N/A□
The scaffold in the area has a current tag.	

ATTACHMENT 9.7			AREA WALK-BY	Y CHECKLIST
Sheet 3 of 3  Area Walk-By Checkli	st (AWC)AWC- 16		Status: Y⊠	] N□ U□
Location: Bldg. AUX	Floor El. <u>607</u>	Room, Area <sup>1</sup> 223		
SWEL Components:	SWEL1- 003, 011, 08	6, 087, 088, 089, 090, 0	92	
	or and found no other seise e safety functions of the ed		Y⊠ N□ U□	
Comments (Additional pa	ages may be added as nec	essary)		19 19 19 19 19 19 19 19 19 19 19 19 19 1
Evaluated by: Alex Smerce	in the las		Date: 10/15/2012	
Paul Klein	Forly & lein		10/15/2012	

ATTACHMENT 9.7			AREA WALK-BY CHECKLIST
Sheet 1 of 3  Area Walk-By Checklis	st (AWC) AWC- 17		Status: Y⊠ N⊡ U⊡
Location: Bldg. AUX		oom, Area <sup>1</sup> <u>116B</u>	
SWEL Components:	SWEL1- 032, 034, 045,		06
space below each of the fo	d to document the results of ollowing questions may be us	sed to record the results	one or more SWEL items. The of judgments and findings.
1. Does anchorage of	ed at the end of this checklist equipment in the area appe seismic conditions (if visible	ar to be free of	Y⊠ N□ U□ N/A□
Does anchorage o significant degrade	f equipment in the area append conditions?	ear to be free of	Y⊠ N□ U□ N/A□
raceways and HV seismic conditions	inspection from the floor, do AC ducting appear to be free (e.g., condition of supports i trays appear to be inside ac	of potentially adverse is adequate and fill	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AWC) <u>AWC- 17</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <sup>1</sup> <u>116B</u>	
SWEL Components: <u>SWEL1- 032, 034, 045, 061, 080, 081, 101, 106</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? A blockwall near safety-related equipment is qualified by C-104.	Y⊠ N□ U□ N/A□
· · · · · · · · · · · · · · · · · · ·	
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7			AREA WALK-BY	CHECKLIST
Sheet 3 of 3			Status: Y⊠	NE UE
Area Walk-By Checkli	st (AWC) <u>AWC-</u>	<u>17</u>	Status. 1	NO OO
Location: Bldg. AUX	Floor El. <u>590</u>	Room, Area <sup>1</sup> <u>116B</u>	die die stag in	
SWEL Components:	SWEL1- 032, 034,	045, 061, 080, 081, 101,	106	
		eismic conditions that could e equipment in the area?	Y⊠ N□ U□	
Comments (Additional pa	ages may be added as i	necessary)		
Figure 4 by May One	Mer lang		D-1 40 45 0040	
Evaluated by: Alex Smero			Date: <u>10-15-2012</u>	
	Poul & Llin			
Paul Klein	-0		<u>10-15-2012</u>	

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 3  Area Walk-By Checklist (AWC)AWC- 18	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area <sup>1</sup> <u>300A</u>	
SWEL Components: <u>SWEL1- 037, 039, 042, 085, 109, 111</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near on space below each of the following questions may be used to record the results o Additional space is provided at the end of this checklist for documenting other co	f judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?  A large heater unit, VEH-37B, is cantilevered off the wall over instruments and tubing for VC-10. Unit is supported with tube steel and anchored to concrete wall with large anchors, judged to be well supported.	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 3  Area Walk-By Checklist (AWC) <u>AWC-18</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area <sup>1</sup> <u>300A</u>	
SWEL Components: <u>SWEL1- 037, 039, 042, 085, 109, 111</u>	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
There is a crooked light fixture overhead of air handling unit VF-26B. The light fixture is supported via chains and S-hooks and is restrained laterally by adjacent beam and HVAC damper. Interaction with damper is judged to be insignificant. Light fixtures judged not to fall off S hooks due to vertical seismic acceleration < 1.0g.	
<ol> <li>Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?</li> <li>Firewater lines noted in the area and judged to be well supported.</li> </ol>	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y⊠ N□ U□ N/A□
<del></del>	

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 3  Area Walk-By Checklist (AWC) <u>AWC- 18</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>629.17</u> Room, Area <sup>1</sup> <u>300A</u>	
SWEL Components: <u>SWEL1- 037, 039, 042, 085, 109, 111</u>	
Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y⊠ N□ U□
Comments (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell L. Bull  John Kao  John Kao	Date: 10/16/2012
John Kao	10/16/2012

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 1 of 5  Area Walk-By Checklist (AWC)AWC- 19	Status: Y⊠ N□ U□
Location: Bldg. AUX Floor El. 607 Room, Area 725, E	NTIRE ROOM
SWEL Components: <u>SWEL1- 008, 009, 014, 015</u>	
Instructions for Completing Checklist  This checklist may be used to document the results of the Area Walk-By n space below each of the following questions may be used to record the re Additional space is provided at the end of this checklist for documenting or	sults of judgments and findings.
Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	Y⊠ N□ U□ N/A□ y
Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adver seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□ se

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 2 of 5  Area Walk-By Checklist (AWC)AWC- 19	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <sup>1</sup> <u>725, ENTIRE</u>	ROOM
SWEL Components: SWEL1- 008, 009, 014, 015	
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	Y⊠ N□ U□ N/A□
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? There is a bucket on the west side of EB-20. Auxiliary Operator, Steve Podgurski noted that the bucket is checked every shift. No water noted in bucket.	Y⊠ N□ U□ N/A□
Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y⊠ N□ U□ N/A□
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? There was equipment in the area that was roped off per WO#262786. All the equipment was roped off and/or wheels were chocked.	Y⊠ N□ U□ N/A□

ATTACHMENT 9.7	AREA WALK-BY CHECKLIST
Sheet 3 of 5  Area Walk-By Checklist (AWC) <u>AWC- 19</u>	Status: Y⊠ N□ U□
Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area 725, ENTIRE	ROOM
SWEL Components: <u>SWEL1- 008, 009, 014, 015</u>	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?  An unrestrained fire extinguisher was noted resting right side up on the ground east side of room. The extinguisher was sitting on a marked off area.	Y⊠ N□ U□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Kevin Bessell Li-Ball  John Kao	Date: 10/17/2012
John Kao	10/17/2012

**AREA WALK-BY CHECKLIST** 

Sheet 4 of 5

Area Walk-By Checklist (AWC) \_\_\_AWC- 19

Status: Y⊠ N□ U□

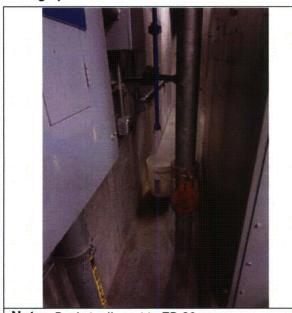
Location: Bldg. AUX

Floor El. 607 Room, Area<sup>1</sup> 725, ENTIRE ROOM

**SWEL Components:** 

SWEL1- 008, 009, 014, 015

# **Photographs**



Note: Bucket adjacent to EB-20.



Note: Staged equipment.

ATTACHMENT 9.7				AREA WALK-BY CHECKLIST
Sheet 5 of 5 Area Walk-By Checkli	st (AWC)AWC- 1	9_		Status: Y⊠ N□ U□
Location: Bldg. AUX	Floor El. 607		725, ENTIRE RO	ОМ
SWEL Components:	SWEL1- 008, 009, 0			12
			The second secon	
	(Ci)			
Note: Fire extinguisher	r near wall, unrestrained.	Note:		

ATTACHMENT 9.7	·		AREA WALK-BY CHECKLIST
Sheet 1 of 4  Area Walk-By Checklist	t (AWC) <u>AWC- 20</u>		Status: Y⊠ N⊡ U⊡
Location: Bldg. AUX	Floor El. <u>607</u> F	Room, Area <sup>1</sup> 224	
SWEL Components:	SWEL1- 002, 004, 005, 054, 055, 056, 057, 058		6, <i>047</i> , <i>04<u>8</u>, <i>04</i>9, <i>052</i>, <i>053</i>,</i>
Instructions for Completing	ng Checklist		
This checklist may be used space below each of the fol Additional space is provided	lowing questions may be u	ised to record the results of	
	equipment in the area appe seismic conditions (if visible		Y⊠ N□ U□ N/A□
Does anchorage of significant degraded	equipment in the area appe I conditions?	ear to be free of	Y⊠ N□ U□ N/A□
raceways and HVA0 seismic conditions ( conditions of cable t	espection from the floor, do C ducting appear to be free e.g., condition of supports is trays appear to be inside action to be full but not outsid	of potentially adverse is adequate and fill cceptable limits)?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

ATTACHMENT 9.7		AREA WALK-BY CHECKLIST
Sheet 2 of 4  Area Walk-By Checklist (AWC)	AWC- 20_	Status: Y⊠ N□ U□
Location: Bldg. AUX Floor	El. <u>607</u> Room, Area <sup>1</sup> <u>224</u>	
	- 002, 004, 005, 006, 007, 012, 01; 5, 056, 057, 058, 059, 095	3, 046, 047, 048, 049, 052, 053,
spatial interactions with othe and lighting)? It was noted that there was a cabinents and other large ite	is free of potentially adverse seismic requipment in the area (e.g., ceiling tiles small as a 2" gap between many of the ms. This gap is seen as sufficient relative motion between the stiff cabinateraction.	the
	is free of potentially adverse seismic flooding or spray in the area?	Y⊠ N□ U□ N/A□
Does it appear that the area interactions that could cause	is free of potentially adverse seismic a fire in the area?	Y⊠ N□ U□ N/A□
interactions associated with portable equipment, and tem shielding)?	is free of potentially adverse seismic housekeeping practices, storage of aporary installations (e.g., scaffolding, less noted in this Area-Walk-By were laddich were secured.	

ATTACHMENT 9.7			AREA WALK-BY CHECKLIST
Sheet 3 of 4  Area Walk-By Checkli	st (AWC)AWC- 20_		Status: Y⊠ N□ U□
Location: Bldg. AUX	Floor El. <u>607</u> Roc	om, Area <sup>1</sup> 224	
SWEL Components:	SWEL1- 002, 004, 005, 00 054, 055, 056, 057, 058, 0	06, 007, 012, 013, 046, 0 059, 095	047, 048, 049, 052, 053,
	or and found no other seismic on and found no other seismic on a safety functions of the equipment of the second control of the seco		∕⊠ N□ U□
Comments (Additional pa	ges may be added as necessa	ary)	
Evaluated by: <u>Alex Smerc</u>	Poul & Lain		Date: <u>10-17-2012</u>
Paul Klein	Foul & Llain		10-17-2012

ATTACHMENT 9.7				AREA WALK-BY CHECKLIST
Sheet 4 of 4 Area Walk-By Checkli	st (AWC)AWC-	20		Status: Y⊠ N□ U□
Location: Bldg. AUX	Floor El. <u>607</u>	Room, Area <sup>1</sup>	224	
SWEL Components:	SWEL1- 002, 004, 054, 055, 056, 057	005, 006, 007, 0 7, 058, 059, 095	012, 013, 046	5, 047, 048, 049, 052, 053 <u>,</u>
Photographs	#			
Note: Example of 2 inco	ch gap between Cabine	t and Note:		

ATTACHMENT 9.8 Sheet 1 of 4

POTENTIALLY ADVERSE SEISMIC CONDITIONS FORM

LB#	SWC/AWC#	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	STATUS
LB-01	SWEL1-010	Missing bolt connecting cabinets at 152-111/112 and 152-106/107.	Condition entered directly into CAP. Missing bolts should be replaced.	CR-PLP-2012-06559	Closed to Work Orders 331376 and 331377
LB-02	SWEL1-103	Angle connecting tube steel braces different than what is shown in drawing.	Condition entered directly into CAP. Calculation is to be reviewed and configuration documents are required to be modified accordingly.	CR-PLP-2012-06565	Closed to CR- PLP-2012-06555 CA-15 for Configuration Change
LB-03	SWEL2-004	Anchorage of E53B (heat exchanger) to E-53A has limited engagement of nuts with bolt on west side of heat exchanger.	The condition of one bolt not fully engaged is acceptable. The bolting in question does not need a strength reduction because more than three threads are engaged. Per Mechanical Engineering Design, Shigley 3rd Edition, section 6-8, only three threads are required to develop the full strength of the bolting.	CR-PLP-2012-7083	Close to CR-PLP- 2012-7083
LB-04	SWEL1-001	Brace for top of cabinets calls for a WT2X6.5 in C-103, Sh. 1. As-built consists of 2L.	Condition entered directly into CAP. Calculation is to be reviewed and configuration documents are required to be modified accordingly.	CR-PLP-2012-06707	Closed to CR- PLP-2012-06555 CA-13 for Configuration Change
LB-05	SWEL1-001	MCC bucket 52-721 has exposed wire and appears to be missing components.	Condition entered directly into CAP. Identify missing components and tie up loose wiring.	CR-PLP-2012-06639	Closed to Work Order 329289
LB-06	SWEL2-002	Southwest bolt anchoring pump skid of P-51B has limited thread engagement.	The condition of one bolt not fully engaged is acceptable. The bolting in question does not need a strength reduction because more than three threads are engaged. Per Mechanical Engineering Design, Shigley 3rd Edition, section 6-8, only three threads are required to develop the full strength of the bolting.	CR-PLP-2012-7084	Close to CR-PLP- 2012-7084
LB-07	SWEL2-003	12" block wall just east of pump does not have any apparent designation on the wall itself and nothing shown on drawing C-104 stating whether it is qualified or unqualified. If it is unqualified it could have detrimental effects on P-82.	Upon further review it was discovered Drawing C-104 sheet 0 shows both walls as qualified. WR288197 was generated to label wall C-104.20Q and wall Q-104.23Q in accordance with Specification C-265. CR-PLP-2012-06854 was also generated to document that the walls were not labeled.	CR-PLP-2012-06854	Closed to Label Request for Block Wall
LB-08	AWC-05	There is a lighting fixture suspended by an open S-hook in the area. If lighting fell during seismic event it could damage equipment below.	Condition entered directly into CAP. Determine the vertical seismic acceleration in the area and consider whether the hook coming off the support is credible.	CR-PLP-2012-06670	Closed Work Order 326722

Sheet 2 of 4

POTENTIALLY ADVERSE SEISMIC CONDITIONS FORM

LB#	SWC/AWC#	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	STATUS
LB-09	AWC-05	There is an overhead spring can support in room 115 hanging from the ceiling whose associated hanger rod is askew and appears to be bent within the spring can support.	WR288113 was generated to further inspect the hanger. At this time the spring can appears to be taking the load. At the time of the VT-3 if an adverse condition is identified a CR will be generated	N/A	N/A
LB-10	AWC-05	There is a pipe support consisting of a steel angle extending from the west wall just west of E-53B that has a gap between the support and its associated pipe. The pipe is vertically restrained by its u-bolt.	Condition entered directly into CAP. The design load for the U-bolt in SP-03325 for Pipe Restraint HC4-H245.1 is +/- 62 lbs. Per previous evaluations under the Safety Related Piping Reverification Program, the system can be considered operable with one deficient hanger.	CR-PLP-2012-06650	Closed to Work Order 330791
LB-11	AWC-05	There is a 12" blockwall just west of Column Line G, between Column Lines 26 and 28 and just East of P-82 that is not designated as qualified or unqualified on either the physical wall itself nor C-104. If it is unqualified it has potential to be an adverse seismic condition for equipment in its immediate vicinity.	Upon further review it was discovered Drawing C-104 sheet 0 shows both walls as qualified. WR288197 was generated to label wall C-104.20Q and wall Q-104.23Q in accordance with Specification C-265. CR-PLP-2012-06854 was also generated to document that the walls were not labeled.	CR-PLP-2012-06854	Closed to Label Request for Block Wall
LB-12	AWC-06	Anchorage of air regulator for I/P 0736 has corroded anchorage due to water damage over time.	Condition entered directly into CAP. Review the calculation of the support bracket to determine the margin within the expansion anchors.	CR-PLP-2012-06643	Closed to Work Order 327102
LB-13	SWEL1-072	Support bracket has one u-bolt and vendor configuration mounting shows two u-bolts.	LT-2021 is operable based on the low seismic demand compared to the relatively high capacity of the bolting in question. LT-2021 was also found acceptable previously per the SQUG methodology. CR-PLP-2012-07149 was initiated which includes an Operation Evalutaion that declaired LT-2021/LT-2022 Operable Non-conforming	CR-PLP-2012-07149	Close to WO 333244 and 333245
LB-14	SWEL1-072	Possible interaction with light fixture and speaker system on top of turbine building	This is not an operability concern. The siren and light are properly restrained to resist design wind loads. The wind loading bounds the seismic loading. In a seismic event the light and siren will remain safely attached and will not negatively impact surrounding plant equipment.	N/A	N/A
LB-15	SWEL1-073	Possible interaction with light fixture and speaker system on top of turbine building	This is not an operability concern. The siren and light are properly restrained to resist design wind loads. The wind loading bounds the seismic loading. In a seismic event the light and siren will remain safely attached and will not negatively impact surrounding plant equipment.	N/A	N/A

ATTACHMENT 9.8 Sheet 3 of 4

POTENTIALLY ADVERSE SEISMIC CONDITIONS FORM

LB#	ISWCIAWC#	IDENTIFIED CONDITION	LICENSING BASIS EVALUATION CONCLUSION	RESOLUTION	STATUS
LB-16	AWC-08	Possible interaction with light fixture and speaker system on top of turbine building	This is not an operability concern. The siren and light are properly restrained to resist design wind loads. The wind loading bounds the seismic loading. In a seismic event the light and siren will remain safely attached and will not negatively impact surrounding plant equipment.	N/A	N/A
LB-17	SWEL1-079	There is a nut missing on the anchorage connecting PT-0762C to its steel angle support.	Condition entered directly into CAP. Review the calculation and determine the capacity of the as-installed condition. Replace nut.	CR-PLP-2012-06644	Closed to Work Order 326722
LB-18	SWEL1-061	Possible interaction of damper D-29 and duct for V-24D with K-6B.	This issue was dispositioned in CR-PLP-2009-03639. The as-found condition identified in LB-18 is acceptable.	N/A·	N/A
LB-19	SWEL1-089	A book is hanging from the inside of the cabinet which could potentially interact with interior wiring and components.	Condition entered directly into CAP. Remove the notebook.	CR-PLP-2012-06754	Closed to Action Taken (removed notebook)
LB-20	SWEL1-003	There is a 2" line that runs above EB-22 approximately 12 feet above the slab that is unsupported for approximately 16.5'. This was judged to be an excessive span for that small of a pipe diameter. For identification purposes it was noted that conduit x3316 is attached to the span.	Condition entered directly into CAP. Review the pipe stress analysis for the pipe and determine the adequacy of the long span.	CR-PLP-2012-06742	CR-PLP-2012- 06742 CA-03 initiated to develop EC to address identified issue
LB-21	SWEL1-086	The cable cover plates in the back interior of the cabinet are missing nuts. The plates are protecting cable and are not considered as intercabinet bolting. The only load on these plates is the dead load, which is being resisted by the screws and are not dependent on the nut. Any out-of-plane loading due to seismic, which would cause the panel to come off the screws is judged to be minimal based on small mass of the component and is kept restrained by the remaining nuts. CR-PLP-2012-06877 has been initiated.	Condition entered directly into CAP. Replace nuts.	CR-PLP-2012-06877	Close to WO330961
LB-22	SWEL-018	Two of the six nuts that hold the pump skid to its concrete pedestal lack full thread engagement.	The bolting in question does not need a strength reduction because more than three threads are engaged. Per Mechanical Engineering Design, Shigley 3rd Edition, section 6-8, only three threads are required to develop the full strength of the bolting.	CR-PLP-2012-7271	Close to CR-PLP- 2012-7271

ATTACHMENT 9.8		POTENTIALLY ADVERSE SEISMIC CONDITIONS FORM
Sheet 4 of 4		•
Prepared by:	Kevin Bessell (ENERCON) L. B.	Date:11/15/2012
Reviewed by:	P. D. MacMaster DLATA  Peer Review Team Member	Date: 11/15/2012

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LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1		
Licensing Basis (LB) Evaluation	Form	,
LB Evaluation No.: <u>LB-01</u>	Originating SWC/AWC: SWEL1-0	)10_
• •	Equip. Class: <u>3, <i>MEDIUM VOLTA</i> S<i>WITCHGEAR</i></u>	<u>GE, METAL-CLAD</u>
Equipment Description: BUS 1C (2400 VOLT	5)	
Location: Bldg. <u>AUX</u> Floor El	l. <u>590</u> Room, Area _	<u>116A</u>
Condition  Missing bolt interconnecting cabinets at 152-111.  Documents Reviewed  N/A - Condition entered directly into Corrective A  Licensing Basis  N/A - Condition entered directly into Corrective A  Evaluation  N/A - Condition entered directly into Corrective A	Action Program. Action Program.	
<u>Conclusion</u> Condition Meets the Licensing CR# (If applicable): <u>CR-PLP-2012-06559</u>	g Basis: ☐ Yes	
Prepared by: Kevin Bessell Licensing Basi	is Reviewer	Date
Reviewed by: P.D. MacMaster	<del>55</del>	Date

Peer Reviewer

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Shoot 1 of 1

Peer Reviewer

Reviewed by: P.D. MacMaster

Reviewed by: \_P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1

Sheet 1 of 1
Licensing Basis (LB) Evaluation Form
LB Evaluation No.: <u>LB-03</u> Originating SWC/AWC: <u>SWEL2-005</u>
Equipment ID No.: <u>E-53B</u> Equip. Class: <u>21, TANKS AND HEAT EXCHANGERS</u>
Equipment Description: SPENT FUEL POOL HEAT EXCHANGER
Location: Bldg. AUX Floor El. 590 Room, Area 115
Condition  One of the bolts that connects E-53A to E-53B does not have full thread engagement. All the other bolting connecting the two heat exchangers is fully engaged.
Documents Reviewed
Mechanical Engineering Design, Shigley 3 <sup>rd</sup> Edition
Licensing Basis
It is generally understood that equipment fastened by bolts is expected to have full thread engagement. Of the four anchors inspected for E-53A/E-53B three had full thread engagement and one did not. The bolt that did not was less than two threads below the top of the nut. Per Mechanical Engineering Design section 6-8, only three threads are required to develop the full strength of the bolting.CR-PLP-2012-7083 was initiated to document the lack of thread engagement.
<u>Evaluation</u>
The condition of one bolt not fully engaged is acceptable. The bolting in question does not need a strength reduction because more than three threads are engaged.
<u>Conclusion</u> Condition Meets the Licensing Basis: ⊠ Yes ☐ No
CR# (If applicable): <u>CR-PLP-2012-7083</u>
Prepared by: Tim Crocker Date 11/06/2012 Licensing Basis Reviewer

Peer Reviewer

Date <u>11/06/2012</u>

Reviewed by: P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

heet 1 of 1
Licensing Basis (LB) Evaluation Form
LB Evaluation No.: <u>LB-04</u> Originating SWC/AWC: <u>SWEL1-001</u>
Equipment ID No.: <u>EB-07</u> Equip. Class: <u>1, MOTOR CONTROL CENTERS AND WALL</u> <u>MOUNTED CONTACTORS</u>
Equipment Description: <u>480 VOLT MCC NO.7</u>
Location: Bldg. <u>AUX</u> Floor El. <u>590</u> Room, Area <u>121</u>
Condition
The seismic bracing from EB-07 to the adjacent concrete wall is identified as WT 2 X 6.5 in drawing C-103 Sh.1. The actual bracing is double angle 2 X 1-1/4 X 3/16. CR-PLP-2012-06707 was initiated.
Documents Reviewed
Drawing C-103 Sh.1. Records search was also performed to try to locate a field change that authorized the member change.
Licensing Basis
The as-built bracing is equivalent to that shown in drawing C-103 Sh.1. CR-PLP2012-06707 provides further iustification.
Evaluation
The noted discrepancies between the bracing configuration and drawing C-103 Sh.1 are acceptable. The change does adversely effect EB-07 from a seismic loading standpoint, see CR-PLP-2012-06707 for further justification.
Conclusion Condition Meets the Licensing Basis: ⊠ Yes ☐ No
CR# (If applicable): <u>CR-PLP-2012-06707</u>
Prepared by:
Mr.

Peer Reviewer

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LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1

Licensing Basis (LB) Evaluation Form
LB Evaluation No.: <u>LB-05</u> Originating SWC/AWC: <u>SWEL1-001</u>
Equipment ID No.: <u>EB-07</u> Equip. Class: <u>1, MOTOR CONTROL CENTERS AND WALL MOUNTED CONTACTORS</u>
Equipment Description: 480 VOLT MCC NO.7
Location: Bldg. AUX Floor El. 590 Room, Area 121
<u>Condition</u>
MCC bucket 52-721 has exposed wire and appears to be missing components. This condition does not have an adverse effect on the seismic adequacy of EB-07. CR-PLP-2012-06639 was initiated to document this condition.
Documents Reviewed
Licensing Basis
See CR-PLP-2012-06639. Identified issue is dispositioned directly in CR. Breaker 52-721 is a spare and is in the off position.
<u>Evaluation</u>
See CR-PLP-2012-06639. Identified issue is dispositioned directly in CR. Breaker 52-721 is a spare and is in the off position.
<u>Conclusion</u> Condition Meets the Licensing Basis: ⊠ Yes ☐ No
CR# (If applicable):CR-PLP-2012-06639
Prepared by:
Reviewed by: P.D. MacMaster DK## Date Date

Peer Reviewer

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1

Licensing Basis (LB)	Evaluation Form		
LB Evaluation No.: <u>LB-06</u>	Originating S\	NC/AWC: <u>SWEL2-002</u>	
Equipment ID No.: <u>P-51B</u>	_ Equip. Class:	5. HORIZONTAL PUMPS	
Equipment Description: <u>SP</u>	<u>ENT FUEL POOL COOLING PL</u>	IMP	
Location: Bldg. AUX	Floor El. <u>590</u>	Room, Area <u>115</u>	_
Condition			
	" diameter anchor bolts. The bol	edestal does not have full thread engagem Its could not be measured at the time of the	
Documents Reviewed			
Mechanical Engineering Desig	n, Shigley 3 <sup>rd</sup> Edition		
Licensing Basis			
four anchors inspected for P-5 less than two threads below the	1B three had full thread engager e top of the nut. Per Mechanical	xpected to have full thread engagement. Onent and one did not. The bolt that did not we Engineering Design section 6-8, only three CR-PLP-2012-7084 was initiated to docume	was :
<u>Evaluation</u>			
The condition of one bolt not fure reduction because more than t		polting in question does not need a strength	ר
Conclusion Condition Me	ets the Licensing Basis:	Yes No	
CR# (If applicable): <u>CR-P</u>	LP-2012-7084		
Prepared by: <u>Tim Crocker</u>	Limithy Gocker Licensing Basis Reviewer	Date <u>11/06/2012</u>	
Reviewed by: P.D. MacMa	aster Dh. to the	Date 11/06/2012	

Peer Reviewer

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Reviewed by: P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

heet 1 of 1
Licensing Basis (LB) Evaluation Form
LB Evaluation No.: _LB-07 Originating SWC/AWC: _SWEL2-003
Equipment ID No.: P-82 Equip. Class: 5. HORIZONTAL PUMPS
Equipment Description: SPENT FUEL POOL COOLING PUMP
Location: Bldg. AUX Floor El. 590 Room, Area 115
Condition  12" concrete masonry unit wall east of P-82 is not labeled as qualified or unqualified. It was originally thought Drawing C-104 sheet 0 did not show these walls as qualified or unqualified. Upon further review it was discovered Drawing C-104 sheet 0 shows both walls as qualified.  Documents Reviewed
Plant drawing C-104 sheet 0  Licensing Basis  Per Drawing C-104 sheet 0 the bottom wall is C-104.20Q and the top wall is C-104.23Q.
Evaluation  WR288197 was generated to label wall C-104.20Q and wall Q-104.23Q in accordance with Specification C-265.  CR-PLP-2012-06854 was also generated to document that the walls were not labeled.
Conclusion       Condition Meets the Licensing Basis:          \[
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Peer Reviewer

	PAGE 8 OF 26
ATTACHMENT 9.9	LICENSING BASIS EVALUATION FORMS AND INSTRUCTION
Sheet 1 of 1	
Licensing Basis (LB) Evaluation Form	n
LB Evaluation No.: <u>LB-08</u> Origina	ating SWC/AWC: <u>AWC-05</u>
Equipment ID No.: N/A Equip.	Class: _ <i>N/A</i>
Equipment Description: <u>LIGHT FIXTURE S-HOOK</u>	_
Location: Bldg. AUX Floor El. 590	Room, Area <u>115</u>
Condition	
Open S-hook identified in room 115.	
Documents Reviewed	,
Specification C-175(Q)	•
Licensing Basis	
See CR-PLP-2012-06670. Identified issue is disposition	ned in directly in CR.
Funktion	
<u>Evaluation</u>	
See CR-PLP-2012-06670. Identified issue is disposition	ned in directly in CR.
Conclusion Condition Meets the Licensing Basi	s: 🛛 Yes 🔲 No
CR# (If applicable): <u>CR-PLP-2012-06670</u>	
<b>(</b> )	
Prepared by: Tim Crocker Timothy Cocker	Date 10/12/2012
Trepared by. Till Crocker 40	DateDate

Licensing Basis Reviewer

Peer Reviewer

Reviewed by: P.D. MacMaster

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Reviewed by: P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1
Licensing Basis (LB) Evaluation Form
LB Evaluation No.: <u>LB-09</u> Originating SWC/AWC: <u>AWC-05</u>
Equipment ID No.: <u>N/A</u> Equip. Class: <u>N/A</u>
Equipment Description: SPRING CAN BENT ROD
Location: Bldg. AUX Floor El. 590 Room, Area 115
Condition  Spring can HC4-H93 is cocked to one side. It appears one side of the spring is compressed more than the other causing the spring to be cocked. The spring can still appears to be taking the load.
Documents Reviewed  Plant Drawing M-107 sheet 110
Licensing Basis  It appears HC4-H93 is still carrying the load, however, the hanger rod is not centered in the spring can as well as one would normally expect. Work Request 288113 was generated to do a VT-3 on the spring can. Since the hanger appears to be taking the load there is no adverse condition with respect to it carrying load. If an adverse condition is identified during the VT-3 of the hanger a CR will be generated.  Evaluation
WR288113 was generated to further inspect the hanger. At this time the spring can appears to be taking the load. At the time of the VT-3 if an adverse condition is identified a CR will be generated.
Conclusion       Condition Meets the Licensing Basis:       ✓ Yes       ☐ No         CR# (If applicable):
Prepared by: Tim Crocker   Date 10/23/2012   Licensing Basis Reviewer
4

Peer Reviewer

ATTACHMENT 9.9	LICEN	SING BASIS EVALUATION FORMS AND INSTRUCTION	ONS
Sheet 1 of 1			
Licensing Basis (LB) Eva	aluation Form		
LB Evaluation No.: <u>LB-10</u>	Originating SW	C/AWC: <u>AWC-05</u>	
Equipment ID No.: N/A	Equip. Class: _	N/A	
Equipment Description: <u>UNLOAD</u>	DED PIPE SUPPORT	_	
Location: Bldg. AUX	Floor El. <u>590</u>	Room, Area <u>115</u>	
Condition			
A horizontal pipe support on the wes	t wall, west of E-53Bhas a g	ap between the support and the associated	
piping. The pipe is vertically restrained	ed by a U-bolt.		
<b>Documents Reviewed</b>			
Drawing, M-107 sheet 2660			
Stress Package, SP-03325			
Licensing Basis			
""	.03325 for Pine Restraint HC	C4-H245.1 is +/- 62 lbs. Per previous evaluation	ns
	· · · · · · · · · · · · · · · · · · ·	em can be considered operable with one	,0
deficient hanger. This portion of the properties for more details	piping also normally isolated	from the SFP system, see CR-PLP-2012-066	50
TO THOSE details		•	
<u>Evaluation</u>			
See CR-PLP-2012-06650			
Conclusion Condition Meets th	ne Licensing Basis:	Yes □ No	
CR# (If applicable): <u>CR-PLP-20</u>	_	100	
CR# (II applicable). <u>CR-PLF-20</u>	12-00050		
- Lin	nothyf-Cooker		
	ensing Basis Reviewer	Date <u>10/22/2012</u>	
LIOC	Shally Dadio Noviewel		
	MA	•	
Reviewed by: P.D. MacMaster	IUWWO	Date <u>10/23/2012</u>	

Peer Reviewer

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1

icensing Basis (LB) Evaluation Form						
LB Evaluation No.: <u>LB-11</u>	Originating SWC/AWC: <u>AWC-05</u>					
Equipment ID No.: <u>N/A</u>	Equip. Class: _ <i>N/A</i>					

Equipment Description: <u>12" CONRETE MASONRY UNIT WALL</u>

Location:

Bldg. AUX

Floor El. 590

Room, Area 115

#### Condition

12" concrete masonry unit wall east of P-82 is not labeled as qualified or unqualified. This wall is above the wall described in LB-07, the two walls in LB-07 and LB-11 are separated by a horizontal reinforced concrete beam. Plant drawing C-104 sheet 0 also does not have this wall labeled as qualified or unqualified. Upon further review it was discovered Drawing C-104 sheet 0 shows both walls as qualified.

## **Documents Reviewed**

Plant drawing C-104 sheet 0

## **Licensing Basis**

Per Drawing C-104 sheet 0 the bottom wall is C-104.20Q and the top wall is C-104.23Q.

# **Evaluation**

WR288197 was generated to label wall C-104.20Q and wall Q-104.23Q in accordance with Specification C-265. CR-PLP-2012-06854 was also generated to document that the walls were not labeled.

Conclusion	Condition Meets the Licensing Basis:	⊠ Yes	☐ No	
CR# (If applic	able): <u>_N/A</u>			
Prepared by:	Tim Crocker Licensing Basis Reviewe	er <sub>.</sub>	<u>_</u>	Date
Reviewed by:	P.D. MacMaster DLAS  Peer Reviewer			Date

Reviewed by: \_\_P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1
Licensing Basis (LB) Evaluation Form
LB Evaluation No.: <u>LB-12</u> Originating SWC/AWC: <u>AWC-06</u>
Equipment ID No.: <u>N/A</u> Equip. Class: <u>N/A</u>
Equipment Description:
Location: Bldg. AUX Floor El. 570 Room, Area 005
Condition  Previously identified water intrusion on the west wall of West Engineering Safeguards room. A hairline crack had signs of water intrusion onto I/P-0736 Air Regulator support bracket and I/P-0736A Air Regulator support bracket. The expansion anchors holding the air regulators to the wall and their unistrut support brackets had mild corrosion. There was no significant material loss as a result of the corrosion.
Documents Reviewed
Specification C-173,
• CR-PLP-2007-06436
• CR-PLP-2011-05227
Licensing Basis  CR-PLP-2012-06643 was initiated to address this issue, a detailed disposition can be found within the CR. The capacity of the expansion anchors that fasten the air regulator support brackets to the concrete wall far exceed the seismic demand for the equipment.  Evaluation  The condition identified in this LB and CR-PLP-2012-06643 is acceptable.
Conclusion       Condition Meets the Licensing Basis:       ✓ Yes       ☐ No         CR# (If applicable):
Prepared by: Tim Crocker   Date 10/18/2012   Licensing Basis Reviewer

Peer Reviewer

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 2

Licensing Ba	sis (LB)	<b>Evaluation</b>	<b>Form</b>
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LB Evaluation No.: <u>LB-13</u>

Originating SWC/AWC: \_SWEL1-072

Equipment ID No.: LT-2021

Equip. Class: <u>18, INSTRUMENT RACKS</u>

Equipment Description: CONDENSATE STORAGE TANK T-2 HIGH-LOW LEVEL

Location:

Bldg. TURB

Floor El. <u>590</u>

Room, Area <u>OUTSIDE</u>

## Condition

Vendor manual J-445 sheet 0007 shows two U-bolts that hold the mounting bracket for LT-0221. The as found condition only had one U-bolt holding the bracket.

## **Documents Reviewed**

- Vendor Manual J-445
- Vendor Drawings J-445

### Licensing Basis

The Vendor Manual for LT-2021 (J-445 sheet 7) shows several options for mounting the transmitters. The configuration for mounting to pipes includes two U-bolts. The bolt pattern for pipe mounted transmitter brackets is square shaped while the bolt pattern for panel mounted transmitter brackets is diamond shaped. The vendor manual on file is dated 1999. It appears a panel mounting bracket was used to mount LT-2021, which should use a pipe mounted bracket. Since a panel mounting bracket was used only one U-bolt is holding the transmitter bracket to the pipe. LT-2021 was previously walked down using the SQUG methodology and found to be acceptable. The current mounting configuration cannot be found in records.

Per Vendor Manual J-445 Sheet 7 the U-bolt diameter is 5/16". Conservatively only looking at one half of the Ubolt, the tensile area is 0.0524 in<sup>2</sup>. Using a yield strength of 30ksi the yield capacity is 1572 pounds. Given the transmitter is only 21 pounds per the EQ files, the seismic capacity is much higher than the seismic demand. The bolting configuration as noted is acceptable, and LT-2021 remains operable.

#### **Evaluation**

LT-2021 is operable based on the low seismic demand compared to the relatively high capacity of the bolting in question. LT-2021 was also found acceptable previously per the SQUG methodology. CR-PLP-2012-07149 was initiated to identify this issue. An Operability Evaluation determined that the installed condition of the mounting bracket for LT-2021 is Operable nonconforming since it does not fully meet the Regulatory Guide 1.97 requirements for Category 1 equipment. WO333244 was created to installed a seismically quallified mounting bracket, however the installed condition is operable, see CR-PLP-2012-07149 CA-01.

Conclusion	Condition Meets the Licensing Basis:	⊠ Yes	□ No
CR# (If applic	able): <u>CR-PLP-2012-07149</u>		

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 2

Licensing Basis	(LB	) Evaluation	<b>Form</b>
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Equipment ID No.: LT-2021 Equip. Class: 18, INSTRUMENT RACKS

Equipment Description: CONDENSATE STORAGE TANK T-2 HIGH-LOW LEVEL

Prepared by: Tim Crocker Date 11/15/2012

Reviewed by: P.D. MacMaster Date 11/15/2012

**LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS** 

Sheet 1 of 2

Lic	ensing	<b>Basis</b>	(LB)	Eva	luation	Form
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LB Evaluation No.: <u>LB-14</u>

Originating SWC/AWC: <u>SWEL1-072</u>

Equipment ID No.: <u>LT-2021</u>

Equip. Class: 18, INSTRUMENT RACKS

Equipment Description: <u>CONDENSATE STORAGE TANK T-2 HIGH-LOW LEVEL</u>

Location:

Bldg. TURB

Floor El. <u>590</u>

Room, Area OUTSIDE

## **Condition**

A light and speaker located on top of the Turbine Building along the west side of the building have the potential to come loose from their anchorage in a seismic event and impact LT-2021.

#### **Documents Reviewed**

None, searched Merlin using keywords; "lighting", "siren", and "PA".

#### **Licensing Basis**

Drawing details cannot be located for the mounting of the siren and lighting to the Turbine Building roof. The siren is bolted to a unistrut channel that is bolted to another unistrut member that is fastened to the Turbine Building roof. The light is bolted to a pole that is fastened to the turbine building roof. All hardware used is judged to be adequate based on the low mass and in turn low seismic demand of the objects being secured. In addition both the siren and the light are being secured to the building by their power supply cords. The power supply cords if needed could also restrain the items in a seismic event.

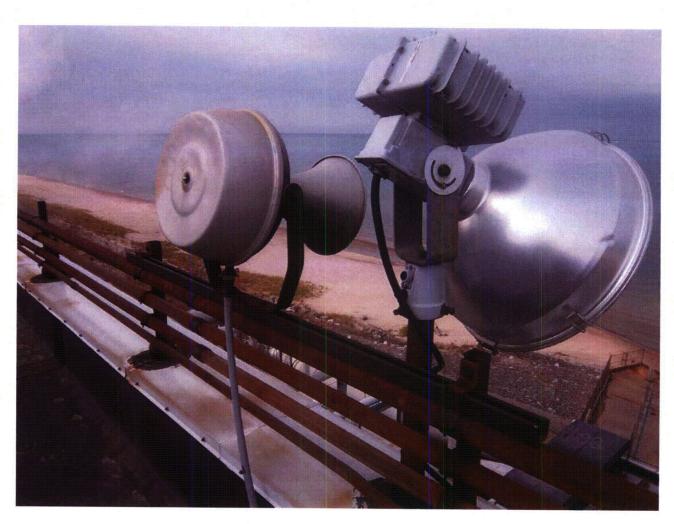
The design wind load loads for the site bound the seismic design loads that the siren and light would see.

## **Evaluation**

This is not an operability concern. The siren and light are properly restrained to resist design wind loads. The wind loading bounds the seismic loading. In a seismic event the light and siren will remain safely attached and will not negatively impact surrounding plant equipment.

Conclusion	Condition Meets the Licensing Basis:		☐ No		
CR# (If applicable): _N/A					
Prepared by:	Tim Crocker Linethyf-Cocker  Licensing Basis Reviewe	er	Date	10/22/2012	
Reviewed by:	P.D. MacMaster DLATA Peer Reviewer		Date	10/23/2012	

Sheet 2 of 2



Sound and Lighting Located Above T-2, Taken From the Turbine Building.

Reviewed by: P.D. MacMaster

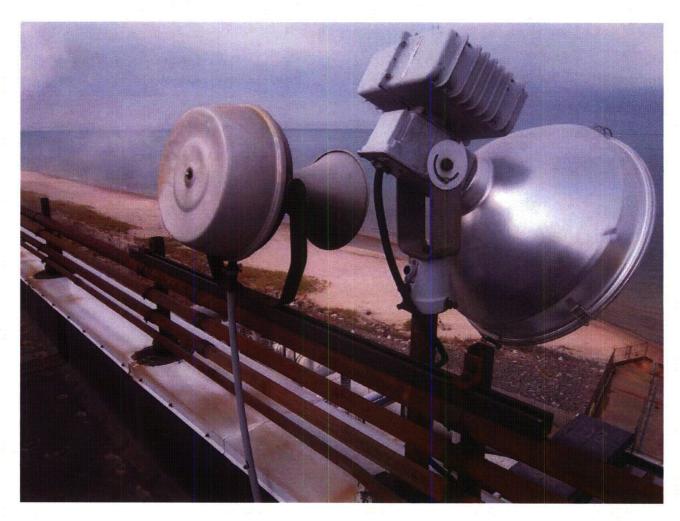
LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 2

Sheet 1 Of 2					
Licensing Basis (LB) Evaluation Form					
LB Evaluation No.: <u>LB-15</u> Originating SWC/AWC: <u>SWEL1-073</u>					
Equipment ID No.: <u>LT-2022</u> Equip. Class: <u>18, INSTRUMENT RACKS</u>					
Equipment Description: CONDENSATE STORAGE TANK HI-LO TRANS					
Location: Bldg. <u>TURB</u> Floor El. <u>590</u> Room, Area <u>OUTSIDE</u>					
Condition  A light and speaker located on top of the Turbine Building along the west side of the building have the potential to come loose from their anchorage in a seismic event and impact LT-2022.  Documents Reviewed  None, searched Merlin using keywords; "lighting", "siren", and "PA".  Licensing Basis  Drawing details cannot be located for the mounting of the siren and lighting to the Turbine Building roof. The siren is bolted to a unistrut channel that is bolted to another unistrut member that is fastened to the Turbine Building roof. The light is bolted to a pole that is fastened to the turbine building roof. All hardware used is judged to be adequate based on the low mass and in turn low seismic demand of the objects being secured. In addition both the siren and the light are being secured to the building by their power supply cords. The power supply cords if needed could also restrain the items in a seismic event.  The design wind load loads for the site bound the seismic design loads that the siren and light would see.  Evaluation  This is not an operability concern. The siren and light are properly restrained to resist design wind loads. The wind loading bounds the seismic loading. In a seismic event the light and siren will remain safely attached and will not negatively impact surrounding plant equipment.					
<u>Conclusion</u> Condition Meets the Licensing Basis: ⊠ Yes □ No					
CR# (If applicable):N/A					
Prepared by: Tim Crocker Date 10/22/2012  Licensing Basis Reviewer					

Peer Reviewer

Sheet 2 of 2



Sound and Lighting Located Above T-2, Taken From the Turbine Building.

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

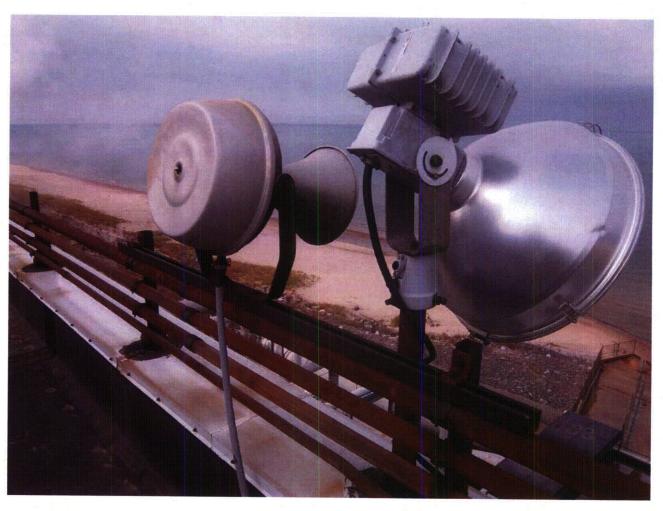
Sheet 1 of 2

Sheet 1 of 2						
Licensing Basis (LB) Evaluation Form						
LB Evaluation No.: <u>LB-16</u> Originating SWC/AWC: <u>AWC-08</u>						
Equipment ID No.: N/A Equip. Class: N/A						
Equipment Description: <u>N/A</u>						
Location: Bldg. <u>TURB</u> Floor El. <u>590</u> Room, Area <u>OUTSIDE</u>						
Condition  A light and speaker located on top of the Turbine Building along the west side of the building have the potential to come loose from their anchorage in a seismic event and impact LT-2021 and/or LT-2022.						
Documents Reviewed  None, searched Merlin using keywords; "lighting", "siren", and "PA".						
Licensing Basis  Drawing details cannot be located for the mounting of the siren and lighting to the Turbine Building roof. The siren is bolted to a unistrut channel that is bolted to another unistrut member that is fastened to the Turbine Building roof. The light is bolted to a pole that is fastened to the turbine building roof. All hardware used is judged to be adequate based on the low mass and in turn low seismic demand of the objects being secured. In addition both the siren and the light are being secured to the building by their power supply cords. The power supply cords if needed could also restrain the items in a seismic event.						
The design wind load loads for the site bound the seismic design loads that the siren and light would see.  Evaluation						

This is not an operability concern. The siren and light are properly restrained to resist design wind loads. The wind loading bounds the seismic loading. In a seismic event the light and siren will remain safely attached and will not negatively impact surrounding plant equipment.

Conclusion	Condition Meets the Licensing Basis: X Yes	□ No		
CR# (If applicable): <i>N/A</i>				
Prepared by:	Tim Crocker  Licensing Basis Reviewer	Date <u>10/22/2012</u>		
Reviewed by:	P.D. MacMaster DKHA  Peer Reviewer	Date <u>10/23/2012</u>		

Sheet 2 of 2



Sound and Lighting Located Above T-2, Taken From the Turbine Building.

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LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Shoot 1 of 1

Sheet 1 Of 1					
Licensing Basis (LB) Evaluation Form					
LB Evaluation No.: <u>LB-17</u>	Originating SWC//	AWC: <u>SWEL1-</u> 0	079		
Equipment ID No.: PT-0762C	Equip. Class: <u>18</u>	- INSTRUMENT	RACKS		
Equipment Description: <u>AUX FW PUMP</u>	P-8C LOW SUCTION F	PRESSURE TRIP	<u></u>		
Location: Bldg. AUX Floo	or El. <u>570</u>	Room, Area _	<u>005</u>		
Condition  PT-0762C is missing a nut for one of its four bolt with the missing nut is the one closest to			smitter to its bracket. The		
EQ files     Engineering Manual EM-24					
Licensing Basis  Per CR-PLP-2012-06644 the as found configurately exceeds the seismic demand of the trut.					
Evaluation See CR-PLP-2012-06644					
Conclusion Condition Meets the Lice	nsing Basis: 🛛 Ye	s 🗌 No			
CR# (If applicable): <u>CR-PLP-2012-066</u>	44				
Prepared by: Tim Crocker Licensing	-Cocker Basis Reviewer		Date		
Reviewed by: P.D. MacMaster	Little		Date		

Peer Reviewer

Reviewed by: \_P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1

Licensing Basis (LB) Evalua	ation Form		
LB Evaluation No.: <u>LB-18</u>	Originating SWC	C/AWC: <u>SWEL1-061</u>	
Equipment ID No.: <u>K-6B</u>	Equip. Class: <u>1</u>	17, ENGINE GENERATORS	
Equipment Description: <u>EMERGENC</u>	Y DIESEL GENERATOR	₹ 1-2	
Location: Bldg. <u>AUX</u> F	loor El. <u>590</u>	Room, Area <u>116B</u>	
Condition			
<del>-</del> -		s. Due to the heavier mass of the damper there is the potential for interaction with I	
Documents Reviewed			
• EA-PO0007899-K6A-B-1, Rev.	1		
• CR-PLP-2009-03639			
Licensing Basis			
03639 dispositioned the issue as accepta	ble due to the flexibility o	n D-29 was in contact with K-6B. CR-PLP- of the duct work. In a seismic event the low adequate movement to prevent dama	
Evaluation Evaluation			٠
This issue was dispositioned in CR-PLP-	2009-03639. The as-foun	nd condition identified in LB-18 is acceptal	ble.
Conclusion Condition Meets the Li	censing Basis: 🛛 Y	′es □ No	
CR# (If applicable): <i>CR-PLP-2009-</i> (	03639		
	J-Cooku ng Basis Reviewer	Date <u>10/18/2012</u>	
	Λ		

Peer Reviewer

Date <u>10/23/2012</u>

Reviewed by: P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1

neet 1 of 1
Licensing Basis (LB) Evaluation Form
LB Evaluation No.: <u>LB-19</u> Originating SWC/AWC: <u>SWEL1-089</u>
Equipment ID No.: <u>EJ-1051</u> Equip. Class: <u>20, INSTRUMENTATION AND CONTROL</u> <u>PANELS</u>
Equipment Description: <u>AUX FEEDWATER CONTROLS</u>
Location: Bldg. AUX Floor El. 607 Room, Area 223
Condition  A notebook was discovered hanging inside the panel door for EJ-1051. The notebook was attached by a chain that was screwed into the panel door.  Documents Reviewed  N/A  Licensing Basis  CR-PLP-201206754 was written to document this issue. Per the CR the plastic notebook was captured between the door panel and an internal metal panel that would limit movement of the notebook during a seismic event. Once the issue was identified Operations subsequently removed the notebook.  Evaluation  See CR-PLP-2012-06754. The notebook was removed by Operations at time of discovery. In addition the found condition of the notebook was deemed not a seismic operability concern due to the fact that the movement was limited by an internal panel and the panel door.
Conclusion Condition Meets the Licensing Basis:   ☐ Yes ☐ No  ☐ No  ☐ No  ☐ CR# (If applicable):
A-

Peer Reviewer

Date <u>10/23/2012</u>

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1

Licensing Basis (LB) Evaluation Form					
LB Evaluation No.: <u>LB-20</u>	Originating SWC/AWC: <u>SWEL1-003</u>				
Equipment ID No : FR-22	Fauin Class: 1-MOTOR CONTROL CENTERS AND WAL				

Equipment ID No.: <u>EB-22</u> Equip. Class: <u>1-MOTOR CONTROL CENTERS AND WALL-</u>

MOUNTED CONTACTORS

Equipment Description: 480 VOLT MOTOR CONTROL CENTER #22

Location: Bldg. <u>AUX</u> Floor El. <u>607</u> Room, Area <u>223</u>

## **Condition**

An unidentified 2" pipe in the overhead of the 1-D Switchgear room has an approximate unsupported span of 18'. The piping is located along the north end of EB-22. A 1/2" conduit for the fire protection system is also supported of this 2" line.

### **Documents Reviewed**

Plant Drawing E-296 sheet1

#### **Licensing Basis**

CR-PLP-2012-06742 was initiated to identify this issue. This piping ties into the plant storm drainage system. Both the 2" pipe and 1/2" conduit are not safety related and are not required to be seismically designed. The length of the 2" pipe exceeds typical spans for 2" piping. However, there are large margins for the capacity of these spans compared to the allowable stress for those spans. In a seismic event this piping would maintain its structural adequacy based on the flexibility of the piping and low loads on the system.

#### **Evaluation**

See CR-PLP-2012-06742

Conclusion	Condition Meets the Licensing Basis: X Yes	☐ No			
CR# (If applica	able): <u>CR-PLP-2012-06742</u>				
Prepared by:	Tim Crocker  Licensing Basis Reviewer	<u>.</u>	Date <u>1</u>	10/18/2012	-
Reviewed by:	P.D. MacMaster DLJ Peer Reviewer	· · · · · · · · · · · · · · · · · · ·	Date <u>1</u>	10/23/2012	_

Reviewed by: P.D. MacMaster

LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS

Sheet 1 of 1					
Licensing Basis (LB) Evaluation Form					
LB Evaluation No.: <u>LB-21</u> Originating SWC/AWC: <u>SWEL1-086</u>					
Equipment ID No.: <u>EC-187</u> Equip. Class: <u>20. INSTRUMENTATION AND CONTROL</u> <u>PANELS</u>					
Equipment Description: <u>AUX FEEDWATER CONTROLS</u>					
Location: Bldg. AUX Floor El. 607 Room, Area 223					
Condition  The cable cover plates in the back interior of the cabinet are missing nuts. The plates are protecting cable internal to the cabinet. Each cover plate is fastened to the panel by 16 1/4" diameter studs that are backed by a nut. All six sub panels within EC-187 are missing nuts, the sub panel with the least amount of nuts has 7 of 16 nuts installed.  Documents Reviewed  None  Licensing Basis  The as found condition does not meet the licensing basis, which is to have all the nuts installed. CR-PLP-2012-					
Evaluation  Evaluation  EC40621, Enginering Change Reply was written to support operabilty of EC-187 with the missing nuts. CR-PLP-2012-7084 and EC40621 desribe how the as found condition of missing nuts is accetable as the cover panel is still performing its design function. The missing nuts are planned to be installed by WO330961.					
Conclusion       Condition Meets the Licensing Basis:       ✓ Yes       ☐ No         CR# (If applicable):       CR-PLP-2012-6877					
Prepared by:					

Peer Reviewer

**EN-DC-168 REV 0** 

Date <u>11/06/2012</u>

**LICENSING BASIS EVALUATION FORMS AND INSTRUCTIONS** 

Sheet 1 of 1

Licensing Basis	s (LB) Evaluation Form	
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LB Evaluation No.: <u>LB-22</u>

Originating SWC/AWC: <u>SWEL1-018</u>

Equipment ID No.: P-67B

Equip. Class: 5. HORIZONTAL PUMPS

Equipment Description: \_LOW PRESSURE SAFETY INJECTOPN PUMP

Location:

Bldg. AUX

Floor El. \_570

Room, Area 005

#### Condition

Two of the six nuts that hold the pump skid to its concrete pedestal lack full thread engagement (west center bolt location and southeast bolt location). Both bolts in question lack approximately two threads from being fully engaged.

## **Documents Reviewed**

Mechanical Engineering Design, Shingley 3<sup>rd</sup> Edition

## **Licensing Basis**

It is generally understood that equipment fastened by bolts is expected to have full thread engagement. Four of the six anchors inspected for P-67B had full thread engagement and two did not. The bolts that did not were approximately two threads below the top of the nut. Per Mechanical Engineering Design section 6-8, only three threads are required to develop the full strength of bolting. CR-PLP-2012-7271 was initiated to document the lack of thread engagement.

## **Evaluation**

The condition of two bolts not fully engaged is acceptable since the lack of thread engagement does not result in a strength reduction.

Conclusion Condition Meets the Licensing Basis: ☐ Yes	☐ No
CR# (If applicable): <u>CR-PLP-2012-7271</u>	
Prepared by: Tim Crocker Licensing Basis Reviewer	Date <u>11/15/2012</u>
Reviewed by: P.D. MacMaster DLATA Peer Reviewer	Date <u>11/15/2012</u>

ATTAC	CHMENT 9.10 PEER REVIEW CHECKLIST FO	R SWEL FORM
Sheet	1 of 3	
Peer	Review Checklist for SWEL	
Instru	ictions for Completing Checklist	
(SWE check SWEL	peer review checklist may be used to document the review of the Seismic Walkdown Equipmant.  L) in accordance with EPRI 1025286, Section 6: Peer Review. The space below each quest list should be used to describe any findings identified during the peer review process and how may have changed to address those findings. Additional space is provided at the end of this cumenting other comments.	ion in this ow the
1. We	ere the five safety functions adequately represented in the SWEL 1 selection?	Y⊠ N□
rea co	e systems chosen adequately represented the five safety functions including activity control, pressure control, inventory control, decay heat removal, and maintain natainment function/integrity. A review of the FSAR Chapter 14 events was performed identify the required systems used to mitigate plant transients.	
	es SWEL 1 include an appropriate representation of items having the following sample sele	ction
а	Various types of systems?	Y⊠N□
	EPRI 1025286 Appendix E identifies systems typically used to support PWR frontline safety functions and the associated support functions. The major components and systems identified in EPRI 1025286 Appendix E were represented in SWEL 1.	
b.	. Major new and replacement equipment?	Y⊠ N□
	Attempts were made to identify new, replacement, and modified equipment by searching the Work Order database, ModTrack Database, and Engineering Changes. Some of the replacement equipment in SWEL 1 included service water pumps, battery chargers and inverters, critical service water isolation valve CV-1359, station batteries, 2400V Bus undervoltage relays, and the shut trip breakers in panels EJL-422 and EJL-423. These have all been replaced since the original IPEEE/A-46 walkdowns. In addition, many other items of equipment on SWEL 1 have been modified since the IPEEE was completed.	
С	. Various types of equipment?	Y⊠ N□
	19 out 21 classes of mechanical and electrical equipment listed in EPRI 1025286 appendix B: Classes of Equipment were originally represented in SWEL 1. There are no Seismic Category 1 components in the other two classes. However, during the walkdowns it was identified that the equipment from two other classes was not accessible for inspection (only two items in each class). As a result, 17 of the 21 classes are represented by the walkdowns. As a result, two items from Class 0 were subsequently included on SWEL 1 and were walked down.	
d.	Various environments?	$Y \boxtimes N \square$
	The peer reviewer suggested adding more equipment located outside of the plant. However, the Plant responded that there weren't many Seismic Category 1 items located "Outside," and the one suggested, the Diesel Fuel Oil Storage Tank, was inaccessible in a sand-filled concrete vault.	

ATTACHMENT 9.10	PEER REVIEW CHECKLIST FOR SWEL FORM
Sheet 2 of 3	
Peer Review Checklist for SWEL	
Instructions for Completing Checklist	
This peer review checklist may be used to document the rev (SWEL) in accordance with EPRI 1025286, Section 6: Peer checklist should be used to describe any findings identified SWEL may have changed to address those findings. Additional for documenting other comments.	Review. The space below each question in this during the peer review process and how the
e. Equipment enhanced based on the findings of the IP	PEEE (or equivalent) program?  YN N
The IPEEE equipment list was used as a starting po- and SWEL 1. This list was checked against/compan- equipment list (which included non-IPEEE equipment recommendations of adding some equipment based they serve important safety functions as indicated by However, the equipment selection team deemed that safety functions were adequately represented.	ed with the A-46 (SQUG) it). The peer reviewer made on the A-46 equipment list as EPRI 1025286 Appendix E.
f. Were risk insights considered in the development of Attachment 5 of EA-PSA-SEIS-SWEL-1-12-06 include Events (FPIE) importance ranking results. Systems four-quadrant plot. The "upper right quadrant" identified that contribute significantly to current risk and would contribution to the change in risk if they were allowed selection for BL 1 initially used this ranking, combined to populate the list.	ded the Full Power Internal were chosen based on the fied systems or components have a large additional d to degrade. Equipment
3. For SWEL 2:	
<ul> <li>Were spent fuel pool related items considered, and i SWEL 2?</li> </ul>	f applicable included in Y⊠ N□
The spent fuel pool related items selected for SWEL guidance given in Section 3 of EPRI 1025286. The pequipment selection for SWEL 2.	
Was an appropriate justification documented for sperincluded in SWEL 2?	nt fuel pool related items not Y⊠ N□
Palisades does not have SFP penetrations below 10 assemblies. Since there are no such penetration, no included in SWEL 2.	

ATTACHMENT 9.10	PEER REVIEW CHECKLIST FOR SWEL FORM
Sheet 3 of 3	
Peer Review Checklist for SWEL	
4. Provide any other comments (Attachment 9.11) related to the per	er review of the SWELs.
The Peer Reviewer suggested that various other items of equipm supplement, or as replacements for, the equipment selected. Ho these suggested items were not Seismic Category 1 equipment, longer required to be maintained as seismic, and were excluded. responded that some of the multiple items of equipment within a were replaced subsequent to the IPEEE completion. Overall, the Guidance for equipment selection.	owever, the Plant responded that many of or had been at one time but were no The equipment selection personnel also particular class were included since they
5. Have all peer review comments been adequately addressed in the	ne final SWEL? Y⊠ N□
Peer Reviewer #1: Candice Chou (ENERCON)	Date: <u>11/6/2012</u>



# **Timothy Crocker**

Training on Near Term Task Force
Recommendation 2.3
- Plant Seismic Walkdowns

June 27, 2012

Date

R.P. Kassawana

Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity



## **Alex Smerch**

# Training on Near Term Task Force Recommendation 2.3 - Plant Seismic Walkdowns

June 13, 2012

Date

R.P. Kassavara

Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity



## **Kevin Bessell**

Training on Near Term Task Force
Recommendation 2.3
- Plant Seismic Walkdowns

June 13, 2012

Date

R.P. Kassavana

Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity



is hereby granted to

# Paul Klein

for successful completion of

## TRAINING ON NEAR TERM TASK FORCE RECOMMENDATION 2.3 PLANT SEISMIC WALKDOWNS

Awarded: 9/13/2012 in Mt. Arlington, NJ

Kevin Bessell

Certified Seismic Walkdown Engineer Palo Alto, CA – 6/13/2012 Alex Smerch

Certified Seismic Walkdown Engineer Palo Alto, CA – 6/13/2012



# Certificate of Achievement

This is to Certify that

John G. Kao

has Completed the SQUG Walkdown Screening and Seismic Evaluation Training Course Weld May 3-7, 1993



David A. Freed, MPR Associates SQUG Training Coordinator Mul P. Smith

Neil P. Smith, Commonwealth Edison SQUG Chairman

Robert P. Kassawara, EPRI SQUG Program Manager P-RPT-12-00141, Rev. 0 ATTACHMENT H PAGE 5 OF 7



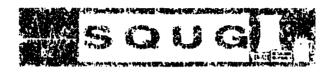
# Certificate of Achievement

This is to Certify that

John G. Kao

has Completed the Seismic IPE Add—On Training Course Weld Iune 8–10, 1993

David A. Freed, MPR Associates SQUG Training Coordinator Robert P. Kassawara, EPRI SQUG Program Manager



# Certificate of Achievement

This is to Certify that

Alan A. Ayon

has Completed the SQUG Walkdown Screening and Seismic Evaluation Training Course Weld November 9-13, 1992



David A. Freed, MPR Associates SQUG Training Coordinator This P. Smith

Neil P. Smith, Commonwealth Edison SOUG Chairman

Robert P. Kassawara, EPRI SQUG Program Manager I-12-00141, Rev. 0 ATTACHMENT H PAGE 7 OF 7

	Entergy				Seismic Walkdown Submittal Report view Comments and Resolutions Form					
Engineerin	Engineering Report Number PLP-RPT-2012-00141			Title SEISM	IIC WALKDOWN EQUIPMENT LIST (SWEL-1 and SWEL-2)					
Quality Related: Yes No				Special Notes or Instructions: Peer Reviewer's Comments and Responses						
Comment Number	The state of the s				Response/Resolution	Reviewer's Accept Initials				
1	Table 9.4.2	What you have listed in the "system type" column does not match the procedure. Please refer to EN-DC-168, Rev. 0, page 46 of 80.			System Type was changed to reflect whether the System is a "Support" or "Front Line" System. No further breakdown is deemed necessary since the supported Safety Function is noted in Table 9.4.1.	CC				
2	Table 9.4.2		s" designation should be in I format per EN-DC-168, Rev. 0, of 80.		The Class Designation has been changed to reflect the 21 Classes of Equipment.	CC				
3	Table 9.4.2	The class designation for S not match the equipment of			Errors in importing data into the SWEL Tables 9.4.1 and 9.4.2 have been corrected.	СС				
4	Table 9.4.2	There are some redundant that could be eliminated to other equipment that is cur the list. For example, SWI 23, and 24 are all service volocated on the same elevation you replace with one of the pumps (P-55B or P-55C) to	ed to make room for is currently not on SWEL items 22, vice water pumps elevation. Suggest of the charging		Charging Pumps are no longer Seismic Category 1 Equipment. The three Service Water Pumps were included since they are the only Seismic Category 1 vertical pumps.	CC				

	*Entergy					Seismic Walkdown Submittal Report Review Comments and Resolutions Form					
Engineerin Report Nu	mber		PT-2012-00141	Rev.	Title SEISM	IIC WALKDOWN EQUIPMENT LIST (SWEL-1 and SWEL-2)					
Quality Re	elated:	☐ Yes	⊠ No		Special Notes or Instructions: Peer Reviewer's Comments and Responses						
5	Table 9.4.2 At first glance there weren equipment listed as "O" fo Suggest that you add T-10 storage tank) in addition to 101). In EA-PSA-SEIS-SV Section 7.2.3 you stated the considered in the SWE listed in Table 9.4.2.		or outside.  O (diesel oil O T-2 (SWEL- WEL-1-12-06, hat T-10 should		There aren't too many Seismic Category 1 items that are outside. With respect to the Diesel Oil Storage Tank, it is located in a sand-filled concrete vault, so there is nothing visible to inspect, with respect to seismic anchorage.	CC					
6	Table 9.4.2 Suggest that you replace SV 12) with EX-13 since there will modification on the transform		was a recent		EX-13 is not Seismic Category 1.	CC					
7	Table 9.4.2 You already have P-67B (I SWEL-16. Consider also a (HPSI pump) since it performs inventory control safety fur was also a recent modification pump.		adding Porms the Inction and	-66A RCS d there	The modification to P-66A was non-consequential with respect to seismic anchorage of the pump. Since we had multiple horizontal pumps on the list, and we were trying to limit, where possible, the equipment to a specific non-protected train, it was determined that the HPSI Pump, P-66A (on the opposite train from P-67B) was not needed on the list. Additionally, the mounting configuration for the Containment Spray Pump P-54C, which is included, is similar to the mounting of the HPSI Pumps, thus there is no benefit to having more horizontal pumps. Further, P-66A would be the only piece of equipment in that room, and would then require an Area Walk-by of the entire room, which is not in keeping with the ALARA principles. A complete area walk-by of one train of Safeguards	CC					

Sheet 1 of 7

PEER REVIEW COMMENT FORM

	Entergy	gira din			smic Walkdown Submittal Report w Comments and Resolutions Form		
Engineerin Report Nur	g J	-RPT-2012-00141	Rev.	Title SEISM	IC WALKDOWN EQUIPMENT LIST (SWEL-1 and SWEL-2)		
Quality Re	lated: Ye	s 🛮 No		Notes o	or Instructions: Comments and Responses		*
•		11 (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4			Equipment should be representative of both trains.		
				1 (44) (44) (44) (44) (44) (44) (44) (44			
8	Table 9.4.2	Suggest that you replac 0861) with CV-0821 sind recent modification on the	ce there was		CV-0861 was selected since it was support equipment for VHX-1, Containment Air Cooler, and supports the Containment Function, whereas CV-0821 does not. CV-0821 is associated with the CCW Heat Exchanger. Since they are both line-mounted components, I'm not sure there is any benefit, from a SWEL standpoint, for selecting the one that has been replaced.	CC	
9	Table 9.4.2	For SWEL-30, please cl for SV-1359. Should it I 598?			The valve is actually at elevation 598. The floor elevation is 590. However, this change was incorporated for consistency.	СС	

	Entergy		Seismic Walkdown Submittal Report Review Comments and Resolutions Form					
Engineerin Report Nur		P-RPT-2012-00141	Rev.	Title SEISM	IIC WALKDOWN EQUIPMENT LIST (SWEL-1 and SWEL-2)			
Quality Re	elated: 🗌 Y	es ⊠ No			or Instructions: s Comments and Responses			
10	Table 9.4.2 SWEL items 46 throug 20, EY-30, EY-40) are Consider using two to other equipment.		dundant.		I'm not sure what you had in mind for "other equipment".  We have a fairly balanced representation of most all of the Classes. These 4 items were selected since they are part of only 10 items from the Class 14 Equipment on the A-46 list, and they are larger panels than the other equipment in that Class.			
11	Table 9.4.	.2 SWEL items 52 through 07, ED-08, ED-09) are re Consider using only two.	redundant.		redundant.		All four Station Inverters were included since they had been modified since the IPEEE walkdowns.	CC
12	Table 9.4.	2 SWEL items 56 through 16, ED-17, ED-18) are re Consider using only two.	ough 59 (ED-15, ED- are redundant.		All four Station Battery Chargers were included since they had been modified since the IPEEE walkdowns.	СС		
13	Table 9.4.	2 SWEL items 80 through 1822, TS-1828, and TS- redundant. Consider usi	-1844) are		are idea is to have representative samples of different types			

Seismic Walkdown Submittal Report Review Comments and Resolutions Form										
Engineerin Report Nu	g	RPT-2012-00141	Rev. 0	Title SEISM	IIC WALKDOWN EQUIPMENT LIST (SWEL-1 and SWEL-2)					
Quality Related: ☐ Yes ☐ No				Special Notes or Instructions: Peer Reviewer's Comments and Responses						
14	Table 9.4.2	I didn't find anything in the related to the Reactor T Suggest that you add E control), EC-11A (post-and maybe EC-168 (post-ample monitoring).	rip System. C-06 (RPS accident cor		Control Panels EC-06 and EC-11A are in the Control Room. No equipment was selected in this room specifically for that reason. Multiple other components were selected that satisfy the equipment class without a disruption to the Operators-at-the-Controls, especially for conducting the Area Walk-By. The Control Panels were all re-anchored in accordance with IEB 80-13 in the early 1980's, as were most of the other electrical cabinets, many of which are on the list. Since the Control Room is a well-controlled environment, it is less likely that the Control Panel anchorage is degraded there than it is for many of the other electrical panels in less controlled environs. Control Rod Clutch Breaker 42-1/RPS was added to the list.	CC				
15	Table 9.4.2	SWEL items 87 through redundant. Consider us Suggest that you add E (diesel fuel transfer) and 246 (diesel oil transfer p	sing only two J-43 or EJ-4 d EJ-245 or	4	EC-168 is not Seismic Category 1 equipment.  The selected items are actually upright cabinets associated with Decay Heat Removal (Auxiliary Feedwater). Since many other components selected are also associated with the Aux. Feed. System, these were selected for that equipment class. The Junction Boxes suggested are relatively small compared to the cabinets selected, thus more relevant.	CC				

-	Seismic Walkdown Submittal Report  Review Comments and Resolutions Form								
Engineerin Report Nu	ng	RPT-2012-00141	Rev.	Title SEISM	IIC WALKDOWN EQUIPMENT LIST (SWEL-1 and SWEL-2)				
Quality Re	elated: Yes	⊠ No		Special Notes or Instructions: Peer Reviewer's Comments and Responses					
16	Table 9.4.2 I didn't see anything for conpressure indication/control. you add LT-0102 or LT-010 or PT-0105B, and RV-0401			st that	Containment Air Cooler VHX-1, CV-0861, and Ventilation Fan V-3A are all associated with Containment Pressure Control, as is the Containment Spray Pump P-54C. Adding more Instruments on Racks or Line-Mounted Valves was thought to be unnecessary.	CC			
17	Table 9.4.2	While you have listed seve SWEL-99 through SWEL- that you also add either T- (boric acid tank) to the SW	WEL-106, suggest her T-53A or T-53B		The Boric Acid Storage Tanks are no longer part of a Seismic Category 1 System. When the Boric Acid System was removed from Tech. Specs., a decision was made to not go into the Equipment Database and change all of the Classifications for all of the Components (thousands of changes). As such, these items still show up as Seismic 1, but are not necessarily being maintained as such. This should be reflected as such in the FSAR.	CC			
18	Table 9.4.2	In the SWEL you only have listed (SWEL-29). Sugges a few of the HPSI and LPS list (MO-3007, MO-3009, M 3011, MO-3012, MO-3013	t that you I MOVs I/O-3010,	u add to the , MO-	Since MOV's are line-mounted components, I don't see the benefit of having more of them and less equipment that is actually anchored to the structure.	CC			

ATTACHMENT 9.11			PEER REVIEW C	OMMENT FORM
Sheet 1 of 7				

•	Enterg	у					kdown Submitents and Reso			
Engineerin Report Nur	ig		PT-2012-00141	Rev.	117 <sup>- 1</sup> - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					
Quality Re					pecial Notes or Instructions: eer Reviewer's Comments and Responses					
19	Table 9.4.2 I didn't see any items related to Containment Spray. Suggest that you add SV-3001 or SV-3002 (CS flow control valve) and CV-3001 or CV-3002 (CS header isolation). These mods were performed as part of the GSI-191 resolution.			v control CS	Containment Spray Pump P-54C is on the list. I don't see the benefit of having more line-mounted components.					
20	Table 9.	4.2	Suggest that you add Prifire pump) to the SWEL performed to re-anchor	. A mod w	<i>i</i> as	P-41 is not a Seismic Category 1 Component.  N/A				
21	Table 9.	4.5	No comment on SWEL	2						
Reviewed I		Cand	ice Chou			Date 9/27/12	Resolved By:	Alan Lyon	K x 1	
Site/Depart	tment:	PAL/E	Enercon Peer Ph.			Date	: 10/25/12			

ATTACHMEN	т 9.11									PEER RE	EVIEW COMMENT FORM
Sheet 1 of	1							ennis et an Albid Uni minima e enec	-willie la telescomo e l'escrito	**************************************	
	Entergy							Submittal Rep nd Resolutions			
Engineering PLP-RPT-12-00141 Report Number					Rev. 1			Walkdown Report Recommendation			hima Near-
Quality Re	No		Special Notes or Instructions: Peer Review for SWCs and AWCs						ovar rescape grandpandgamenterara resca Biz Bizar		
Comment Number	Section/Pag	e No.	Review Comm	ent				Response/Reso	lution		Reviewer's Accept Initials
			As the walkdown Palisades Civil proper docume As the walkdown provided infield or Mechanical the oversight wait the SWEs wheing inspected Having a site of level of detail in Approximately detailed peer rechecked by the comments were	AStructural Desents were being was were being doversight by a Design Engine with any quest dor items including the walkdown one third of the epeer reviewe	g performe at least one er. The manager. The manager in the grant of t	eering ed each ee Civil/S ajority of the Area V helped e equate.  and AWC g got speer rev	team was Structural of the time is was to we on items Valk-bys. ensure the	None required			N/A
Reviewed I	Ву:	Time	othy Crocker	mothyl Coc	iker D	ate	11/1/12	Resolved By:	N/A		
Site/Depart	tment:		/ Design Eng.	Ph.	2	856		Date:	. N	I/A	

ATTACHMEN	т 9.11				P	PEER REVIEW COMMENT FO	
Sheet 1 of	200 See 11 See 200 See 201 See	ili					
	Entergy				n Submittal Report nd Resolutions Form		
Engineerin Report Nur	g PLP-RPT-	12-00141	Rev. 1	Title: Palisades Seismic Walkdown Report for Resolution of Fukushima Near- Term Task Force Recommendation 2.3: Seismic			
Quality Re	lated: Yes	☑ No		I Notes or Instruct eview for Licensing	ns: asis Evaluations (LBE's)		
Comment Number				e de S	Response/Resolution	Reviewer's Accept Initials	
		At the conclusion of the walkd Engineering Supervisor review Evaluation Forms that were gowere reviewed. When Palisac numbers were recorded on the Reports were also reviewed for dispositions.  Two comments were provided of the walkdown forms to provide a valuation. The peer reviewed incorporated.	wed the Li enerated. des Condi e sheets, or appropr d to the au vide better	icensing Basis All LBE forms ition Report the Condition riateness of their atthor of the on two	None required	PDM	

Date

2657

11/1/12

Reviewed By:

Site/Department:

Dave MacMaster

PLP / Design Eng.

Ph.

N/A

N/A

Resolved By:

Date:

PEER REVIEW COMMENT FORM

	Enterg	y .		wn Submittal Report and Resolutions Form					
Engineering Report Nur	g	PLP-RPT-12-00141	Rev. A		Walkdown Report for Resolution of Fu rce Recommendation 2.3: Seismic	kushima			
Quality Re	lated: 🗌	Yes 🛛 No		I Notes or Instruction eview Report	ns: A way were before	lavice II p			
Comment Number	Section/ Page No				Response/Resolution	Reviewer's Accept Initials			
	23	I think we need to revise PEER Lead PEER reviewer need to re		rerything?	The table notes state whom the Peer Review Team Leader is. The Peer Review Team Leader is defined in the Guidance as responsible for all aspects of the Peer Review. I don't think all slots need to be marked explicitly in Table 4-1 of the report.	CEN			
2	23	Revise Charles Netzel BIO as t	follows:		None Required	N/A			
		experience in the nuclear indu	Netzel stry man ed, built nuclear ore recen 1X-04 C jject, For n the 1 Fuel Poo	has over 28 years aging multi-discipline and provide plant power plants in the at experience at Point Cable Bridge Project, oce on Force Project, OCFR73.55 security of Rerack Projects at etzel is a licensed					
4 ()		- 144 144 144 144 144 144 144 144 144 14			t in inje tille				

ATTACHMENT	

PEER REVIEW COMMENT FORM

Entergy					Seismic Walkdown Submittal Report Review Comments and Resolutions Form						
Engineering Report Number PLP-RPT-12-00141			Rev. A								
Quality Related: Yes No					Special Notes or Instructions: Peer Review Report						
Comment Section/ Review Comment Number Page No.					1 2		Response/Resolution Reviewer's Accept Initials				
	Attch	С	Provide photos for SWEL1- 0:	27, 035, 0	040	ATTENDED TO STATE OF THE STATE	Those items are in containment and are deferred. Status is marked "N" and this is described in the submittal report.	CEN SEASON SESSION SES			
Reviewed E	3v.		70	16	Date	11/2/12	Resolved By: Kevin Bessell				
The viewed By.			Chuck Netzel Charles E. 1	Petzel	Jule	1,172/12	Li- Bard				
Site/ Department:							Date: 11/6/12				

Entergy					Seismic Walkdown Submittal Report							
	gy			Review Comments and Resolutions Form								
Engineering Report Number PLP-RPT-12-00141					Rev. A							
Quality Related: Yes No						Special Notes or Instructions: Peer Review of Seismic Walkdowns and Area Walk-bys						
Comment Section/ Review Comment Number Page No.						3.		iller	Response/Reso	olution	Reviewer's Accept Initials	
This Comment Form is completed Peer Review Process of the Set as delineated by the EPRI Guit Job Brief was conducted with the walkdowns and provided the Additionally, daily pre-job briefs accompanied the Walkdown Toconducted Post-Job Debriefs, observations. The Teams exhibit with respect to completing the Reviewer in the field. Anchoral discrepancies were noted for la initially completed walkdown and feedback was provided to the provided in the checklists. Over appropriate level of inspection and the Guidance.					eismic W dance do he Walk- ne expect s were co eams on as neces ibited an checklist ge verific ater reso nd walk- l Feams w erall, the	Valkdown Ted tations to conducte the son approprise, and incation clution. Valkdown Walkdown Walkdown Ted	ns and the Arc. An overall learn prior to the condition their condition. The Peer Interest of the walk in the results/riate question interacted with necks were the Additionally, not lists were reject to the detawn Teams pr	ea Walk-bys Project Pre- ne start of uct. Reviewer kdowns and hing attitude n the Peer horough and nany of the viewed, and ails being ovided the	None Required		N/A	
Reviewed By:  Alan Lyon				Date	11/1/12		Resolved By:	N/A	(a)2 (1) (1) (a) (a) (a) (a) (a) (a) (a) (a) (a) (a			
Alan Lyon  Site/ Department:  PAL/ Design Eng.  Ph. 2921				Ph. 2921	2				Date: N/A			

	Ente <del>r</del> gy		Seismic Walkdown Submittal Report Review Comments and Resolutions Form					
Engineering PLP-RPT-12- Report Number		0 Palisades S		Palisades Seism	Seismic Walkdown Report for Resolution of Fukushima Task Force Recommendation 2.3: Seismic			
Quality Re	lated: Yes	No	Special Notes or Instructions: View electronic mark-up of report for comment clarification.					
Comment Number	Section/Page No.	Review Comment	90 (100 (100 (100 (100 (100 (100 (100 (1		Response/Resolution Revie			
1	3/18	Possibly comment that specific generated and implemented a guidance is correctly implemented as a guidance is correctly in the guidan	cross the		The following was added to Section 3.0:  "A procedure was developed to help implement the Guidance requirements and to ensure consistency across the Entergy nuclear fleet."	AWS		
2	4.2/19	Include Al Lyon as a SW SQUG sheet.	E and i	nclude his	Al Lyon has been added and his SQUG certificate added to Attachment H.	AWS		

•	Entergy		Seismic Walkdown Submittal Report Review Comments and Resolutions Form						
Engineering PLP-RPT-12. Report Number		0 Palisades Seismi			nic Walkdown Report for Resolution of Fukushima Force Recommendation 2.3: Seismic				
Quality Re	elated: Yes	] No		Special Notes or Instructions: View electronic mark-up of report for comment clarification.					
3	4.2/20-22	Keep referral of personal	consist	ent.	This section has changed. Consistency of personnel referral has tried to be maintained.				
4	5/25	Ensure Reference is Atta	ched.	The state of the s	Reference to section has been fixed.	AWS			
5	7/28 Section discussing shuffl needs supporting details			am members	This statement was removed since it was invalid per our walkdowns.	AWS			
6	7/28	Possibly insert section dis debriefing where PASC's requiring LBE's were rela	requirir	ng or not	The following was inserted in Section 7.0:  "The walkdowns and area walk-bys concluded each day with a post-job brief which discussed the observations and conditions identified in the field."	AWS			

	Entergy		Seismic Walkdown Submittal Report Review Comments and Resolutions Form					
Engineering PLP-RPT-12- Report Number		T-12-00141	Rev. 0		nic Walkdown Report for Resolution of Fukushima Force Recommendation 2.3: Seismic			
Quality Re	elated: Yes	□ No	Special Notes or Instructions: View electronic mark-up of report for comment clarification.					
7	7/28	Block Wall Maps inserted			Inserted block wall maps in the discussion pertaining to walkdown documentation.	AWS		
8	7/29	Phrasing of anchorage co	mment	needs editing.	Statement has been edited to state the following:  "Anchorage, in all cases, was specifically meant to be the attachment of the component to the structure."	AWS		
9	7/29	Add scope describing and	chorage	e inspection.	Comment noted.	AWS		
10	7/29	Changed "breaking the pl electrical safety standards		"violating site	Rephrased the sentence to the following:  "as well as inspection for "other adverse seismic conditions" related to internal components (if it could be observed without violating site electrical safety procedures)."	AWS		

	ATTACHMENT 9.11						PEER REVIEW COMMENT FOI
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	Enterg	3 <b>y</b>		Seismic Walkdown Submittal Report Review Comments and Resolutions Form						
Engineering PLP-RPT-12-00141 Report Number			00141	Rev. Title  Palisades Seismic Walkdown Report for Resolution Near-Term Task Force Recommendation 2.3: Seismi						
Quality Related: Yes No			No	Special Notes or Instructions: View electronic mark-up of report for comment clarification.						
11	11 7/29		Update anchorage total to SWEL.	o reflec	t most recent	Anchorage total has been updated. AWS				
12	7.2/30		Clarify 1 <sup>st</sup> sentence of 2 <sup>nd</sup> area walk bys.	<sup>1</sup> paragr	aph describing	Changed the phrase to the following:  "A single area walk-by was conducted for plant areas containing more than one SWEL item."	AWS			
13	9.2/36		Delete 10%			10% is deleted.	AWS			

ATTACHMENT 9.11											PEER REVIE	W COMMENT FORM
Sheet 1 of 5												7
Entergy									n Submittal Repand Resolutions			
					Rev. 0							
Quality Related: Yes No					Special Notes or Instruction View electronic mark-up			ctions: of report for comment clarification.				
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					Her II		e service				Tue I	
Reviewed By:		Alex S	merch Mu	· las		an in m	ate	11-5- 2012	Resolved By:	Kevin Bess	ell Kin	Berl
Site/Department:		Contra /ENER		Ph. 630-86	64-362	26			Date: 11/6/201	2		